RETINA SOUTH AFRICA (NPO Number 003-184)
eMail: national@retinasa.org.za
Postnet Suite 75 | Private Bag X10020 | Edenvale | 1610
Tel: 0860 595959 eFax: 0866 536392

RETINA SOUTH AFRICA

Guidelines for the education of children with retinal vision loss

It has been estimated that as much as 80 per cent of schoolwork is based in some way on vision. In the light of this, it may be possible to begin to understand the problems which face a partially sighted child in a mainstream classroom. The following guidelines deal with issues relating to the education of partially sighted children affected by retinal degenerative conditions. These guidelines are not meant to replace the expert advice of a low vision therapist or optometrist. The range of retinal conditions is both large and complex, and teachers are not expected to know and understand them all, however knowing the exact condition the child has will help to ensure good management. The degree of vision loss is also tremendously variable, even within a family and so what is needed is an understanding of the functional vision which the child possesses and what assistance is required. Here is a short summary of some of the problem areas that partially sighted children may face.

- A number of conditions may cause poor near vision, making it very difficult for the child to perform reading, writing and other tasks involving fine detail. However, it may be quite possible for them to move around freely using distance vision if the visual field is not affected. These conditions usually affect the macular [central] part of the retina and are referred to as macular degeneration [MD] in this article.
- Other conditions may give rise to a severely restricted field of vision [tunnel vision] which will have a severe effect on the child's ability to move around. Retinitis Pigmentosa [RP] is a common cause of this type of vision loss. The child may be able to read and write quite easily, but may have difficulty in reading quickly or in finding specific places on the page.
- Some conditions cause an overall haziness of vision, rendering the child unable to see anything clearly. In other cases, certain patches of vision are missing, creating irregular blind spots.
- Some forms of MD render the child very susceptible to glare from bright lights.
- Nystagmus [a symptom of early severe vision loss] produces rapid eye movements which make it very hard for the child to focus clearly.

It will be clear from the above summary that there can be no overall solution to providing appropriate help to partially sighted children. Depending on the nature of their condition they may require, for example, bright or dim light, enlarged or normal size print, hand-held low vision magnification devices or sophisticated computer equipment.
Whatever the provision of specialist equipment and other support, there are many ways of helping a partially sighted child to learn on equal terms with his or her peers. Inevitably, there will be some modifications required to the normal teaching approach, but many of these will actually benefit the other students in the classroom. The opinion of the child on what works best for him/her is critical. Here are some issues that need consideration.

BLACKBOARD WORK

- Encourage the child to use any spectacles or low vision devices with which he or she has been provided for distance work.
- Try to use the board in a logical rather than random way. Write clearly and leave adequate spacing. Many partially sighted children find 'joined up' writing difficult to read; ask the child what he or she finds easiest to read.
- It is always helpful to read aloud what you are writing on the board.
- Clean the blackboard carefully to obtain maximum contrast with the chalk. Some children may find yellow chalk easier to see. Regular repainting of blackboards is also recommended.
- Keep whiteboards clean and use a clear, black pen. Avoid glare from a shiny whiteboard surface.
- If it is very difficult for a partially sighted child to copy down information accurately or quickly, another solution should be sought. For example, a clear bold print copy of the text should be provided in advance, the size and boldness required should be discussed with the child. A classroom assistant also be assigned to assist. Whatever the choice, it should ensure that the child's direct involvement in the lesson is maintained.

SEATING

- Some children [particularly those with MD] may benefit from being seated in the front of the classroom and to being allowed to walk up to the board to check information, while others [for example those with RP] might need to be placed closer to the back of the classroom. Again the child should participate in the final decision.
- If a child has better sight to one side than the other, take account of this fact when seating the child in the classroom, so that vision is maximised. Ask the child where their best vision occurs.

LIGHTING

- Good lighting is essential. Ideally, this means the provision of a good even light throughout the room but, where this is not possible, it is important to place the partially sighted child in a suitable position in the room. Individual needs may vary, so discussion with the child is needed to establish these.
- Avoid glare from desk tops or shiny paper, and position the child away from direct sunlight.
- Some children may need their own desk lamp to provide an even and local light source. Ask the child if the existing lighting arrangements are suitable.
- Lighting is even more important at night, particularly for students with RP. After showing slides or films in a darkened room, begin to turn on the lights immediately, rather than continue the lesson in semi-darkness. Assign a note-taker when the room is not well lit, or allow the child to use a recording device. Abrupt changes in lighting can be very distressful to many partially sighted children. They often also experience slow adaptation times from dark to light situations.

READING

- Make sure that the child uses properly any low vision devices with which he or she has been provided to assist with reading. Often training is required to help a child to make the best use of low vision devices.
- Some children may need to work very close to the page, and should be allowed to do so [it is not possible to damage sight in this way, nor is there any danger of 'over using' residual vision]. It is important, however, to encourage good posture and care should be taken to provide a chair and desk of an appropriate height. A sloping desk top or bookstand may be helpful
- It is desirable that reading material should be clearly printed in black on a matt [non-glossy] white or yellow paper. Be aware that poor photocopies can be very difficult for a partially sighted child to read.
- Some children may require print to be enlarged, but it is important to ensure that this is done to an appropriate size and that the quality of the print does not deteriorate in the process. A black, bold print is best.
- Some books, especially those which use different colours and fonts, unusual layouts or text overlaid on pictures, may need to be retyped on a computer and a bold or large print copy made. Pay attention to the font size and also to the spacing between letters and words.
- Be careful about enlarging diagrams as you may end up making it more difficult for the child to understand how the different parts relate to each other to form the whole. Consider instead enlarging only the labels, or redrawing the diagram in a simplified form.
- Audio books may be requested from specialist organizations for partially sighted children. Depending on the degree of vision loss, volunteers may be willing to read some assignments onto discs. Many online libraries have downloadable version of the classic novels which can then be accessed by audio programs.

WRITING

- As with reading, ensure that near low vision devices for close work are used properly
- Children with a visual problem are likely to have considerable difficulty in writing neatly and quickly. Even when they do manage to do so, they may have difficulty reading back their own work later
- Encourage the use of black felt tip or roller ball pens, rather than ballpoint or pencils. Provide clearly lined, non-reflective white or yellow paper with a matt finish.
- Feint lined exercise books are usually unsuitable and bold, black lined loose pages in a file area better option.
- The child should be encouraged to use a computer as a substitute for hand written work. Computer proficiency as early as possible will allow the child to master electronic technology – a necessary life skill for successful partially sighted people.

CLASSROOM ENVIRONMENT

Safety is clearly a prime concern when dealing with a partially sighted child. Important considerations include:

- encourage all children to keep the aisles clear.
- keep rooms free of clutter, particularly on the floor.
- make sure that lighting in corridors and on stairs is adequate.
- mark stairs with a white or yellow line on the edge of the first and last step.
- mark glass doors to make them more visible.
- avoid sharp protrusions on furniture and fittings.
- mark the corners of furniture with white tape.
- be aware of low obstacles in the classroom or hallways, and remove them if possible.

- It is also desirable to try to make classroom displays accessible to a partially sighted child by positioning them at an appropriate height and in good light.

EXAMINATION WORK

- It should be the aim of teachers and examination boards to adapt examination papers in such a way that a partially sighted child may demonstrate his or her level of ability without being either advantaged or disadvantaged by such adaptations.
- Where possible, examinations should be taken without the intervention of a third party to read or write on the candidate's behalf.
- Time allowances may be required to compensate for a slower working speed. Allow more time for completing tasks and assignments as the partially sighted child cannot easily scan the page. They may also require time to rest their eyes as a result of vision fatigue. Slow to dark adaptation times should also be borne in mind. Additional time for tests and examinations is legally permissible – an additional 15 minutes per hour is the recommended guideline.

CLASSROOM SUPPORT

Some partially sighted children may need a classroom assistant or a support teacher to assist in the modification of teaching materials and in lessons where good vision is essential. The art of effective support is complex, but one or two general points can be made:

- Where possible and appropriate the support should be indirect, in the form of the support teacher or assistant working outside the classroom to adapt materials so that the student can then work unsupported in lessons. This requires a good working relationship with subject teachers and a high degree of forward planning, but is preferable to the child being wholly dependent on the classroom assistant to interpret material in lessons.

- When working alongside a child in practical lessons for reasons of safety, care should be taken not to do all the work for the child. Planning, decisions and, wherever possible, practical tasks themselves should be undertaken by the child. The role of the support teacher should be to oversee the work and to ensure safe working practice, and also to act under instruction from the child when an essentially visual task has to be undertaken.

OUTSIDE THE CLASSROOM

- On class field trips, be sensitive to lighting and obstacles in the child's path. Stairs can be a problem when they are the same colour as the surface ground. Encourage children with RP to use strong flashlights in darkened situations.

- For the younger child, games can be adapted so that everyone can participate. For example, beeping balls can be purchased so that an approaching ball produces both a visual and auditory cue. Rules to games can be modified and this can be done without singling out the partially sighted child. These modifications may also allow slower children who are not as co-ordinated as their classmates to enjoy participating in games. Physical Education teachers should be fully informed especially if the child participates in sports. Encourage the child but do not risk injury or continual failure.

SUPPORT

- Specialist services providers offer a huge range of assistive devices and programmes that may benefit the partially sighted child. Electronic device are very advanced but usually quite specific in the tasks they will assist with. Some are hand held and others stand-alone or linked to a lap top. Parents should get specialised advice from a low vision service provider or specialist equipment supplier. They must be sure before they buy that the device or programme is precisely what is needed as the more sophisticated options are expensive. Medical Insurers will often fund these and tax deductions may apply.

- Career guidance is important for older children. Children who have not yet lost a significant amount of vision may not like to think about the future as it applies to their vision. Retina South Africa can put the child or family in touch with mentors who have overcome their low vision to achieve success in many fields. Parents and teachers should avoid steering children towards "appropriate" careers for, with the current advances in communication accessibility, many careers are now possible. The child should be encouraged to pursue their passions in a realistic way. Encourage the child to strive to reach his/her full potential, utilizing his/her talents and capabilities.

- Avoid treating the child as "special". Acknowledge that the child has special needs, but make your expectations for him/her clear. Other children may resent any special treatment given to the child above and beyond what is necessary. Learn to think of the child with RD as just that – a child who has poor vision. This assists the child in learning to define himself in a healthy way.

- Encourage the child to discuss his condition with curious classmates, if appropriate. Other children may get along better with the partially sighted child if they understand the nature of the problem. People who do not understand RD may mistakenly think that the affected person is "faking" the problem, because there are some things that the person may be able to do very well and other tasks that the person will have difficulty completing. Other children may erroneously assume that the RD child is a "snob" when he does not acknowledge them, though it is because he does not see them at all times. It may help to point this out to fellow students who convey this attitude. Simulators that mimic RD are available so that sighted children will better understand the challenges that RD children face. Please contact Retina South Africa to order.

HEALTH ISSUES

- Parents should be encouraged to answer children's questions in an open and honest way without making presumptions about the child's future vision. Research advances are now more than ever offering hope for a sighted future for many young RD children.

- VITAMIN A or beta-carotene supplementation of any nature MUST NOT be given to children affected by Stargardt Dystrophy, Cone Rod Dystrophy or ANY form of Juvenile Macular Degeneration as this may accelerate the vision loss. RD children often have acute sunlight sensitivity so they should be allowed to wear sunglasses with UVa and UVb protection in the school playground or during outdoor activities.

Be alert to vision loss - the teacher is very often the first to recognise the fluctuating vision that RD causes.

PUBLICATIONS AVAILABLE:

Retinal Degenerative Disorder

Macular Degeneration and Dystrophies

Facts about Retinal vision loss [English, Afrikaans, Xhosa and Zulu]

Information on specific retinal disorders

For more information contact:
Retina South Africa
Help line: 0860 595959
Email: national@retinasa.org.za