



## Free Special Education Resources, Consultation, Trainings Your Arizona Parent School Connection

### Visual Impairment

#### What is a Visual Impairment?

There are legal and educational definitions of visual impairment (VI). Visual acuity, the ability to see objects clearly and to distinguish details at a specific distance, is the criteria used to decide whether an individual is legally blind. Acuity is measured by reading letters or symbols from a chart at a distance of 20 feet. If a person needs to stand at a distance of 20 feet to see what most people see at 70 feet, that person has 20/70 vision.

A person is considered legally blind if they have visual acuity of 20/200 or less in the better eye, with glasses or corrective lenses. A normal field of vision is 180 degrees. A person may also be considered legally blind if their field of vision is limited to 20 degrees or less.

The educational definition of VI is contained in Arizona Revised Statutes §15-761(40), which states: “‘Visual impairment’ means a loss in visual acuity or a loss of visual field... that interferes with the child’s performance in the educational environment and that requires the provision of special education and related services.”

Besides impairments to visual acuity and to the field of vision, there are other ways in which vision is affected. The ability of the eye to move (ocular motility) and the ability to merge two separate images into one (binocular vision) can affect a child’s vision. Strabismus, the inability to direct the eyes to the same object, may sometimes result in amblyopia. Amblyopia, also known as “lazy eye”, frequently results in a reduction or loss of vision in the weaker eye.

Other types of visual impairment include far-focus/near-focus vision problems and nystagmus. A child may not be able to switch easily from far-focus to near-focus vision. For example, it may be very difficult or impossible for a child to copy from the chalkboard (far-focus) to a paper on his/her desk (near-focus). Nystagmus involves rapid and

involuntary movements of the eye. It can cause difficulty in focusing the eyes and tracking a line of print in a book, creating reading problems. Early detection and intervention are necessary to allow a child to achieve in school and to prevent serious learning or behavior problems. Vision screening of preschool age children can be critical to early detection of eye problems.

#### How Common is a Visual Impairment?

In the 2006–2007 school year, 773 Arizona students were classified as having a visual impairment and received special education services. This number represents 0.07% of the 1,112,610 children enrolled in Arizona public schools as of October 1, 2006 and accounts for 0.62% of the total special education population.

#### What Effect Does a Visual Impairment Have on a Child?

Each child with a visual impairment is unique. It’s important to discover the method that a student with a visual impairment uses to learn. The age of the child at the time the visual impairment is discovered needs to be considered in planning an educational program. Children who are blind from birth sometimes need different techniques and accommodations than do students who were sighted and lost their vision due to an illness or an accident.

Orientation/mobility training has been found to be helpful to most visually impaired students. The training assists students in learning about their environment so they may move about safely.

Many children can be helped through assistive technology such as Braille ‘n Speak, Braille Lite Note-takers, Docu-EDGE Scanners, hands-free computing systems, talking calculators, tape recorders, telescopic aids, magnifiers, tinted lenses, overlays, and other optical aids.

Through the use of Optical Character Recognition (OCR), text may be scanned into a computer that

may then use a variety of output methods. A closed circuit television system, which enlarges standard print, allows students with low vision to use regular textbooks. Reading machines such as the Kurzweil or the Zerox TextBridge are helpful devices for students with visual impairments. The machines read documents aloud in different voices and at varying rates of speed.

Depending on the vision available to a child and the results of an assistive technology evaluation, the unique needs of each child should guide what aids and materials are used.

### References

Heward, W.L. (2006). *Exceptional children: An introduction to special education*. (8th ed.). Upper Saddle River, NJ: Prentice Hall.

Spungin, S.J. (2005). *When you have a visually impaired student in your classroom: A guide for teachers*. NY: American Foundation for the Blind.

### Books for Adults

American Foundation for the Blind. (2005). *Guide to toys for children who are blind or visually impaired*. NY: Author.

Sacks, S. Z. & Silberman, R.K. (1998). *Educating students who have visual impairments with other disabilities*. Baltimore, MD: Brookes Publishing.

### Books for Children

Alexander, S.H., Davis, J. (Ed.) & Carey, J. (Ed.). (2000). *Do you remember the color blue: And questions kids ask about blindness*. NY: Viking Children's Books.

### Organizations/Hotlines/Web Sites

American Foundation for the Blind, 11 Penn Plaza, Ste. 300, New York, NY 10001, 212-502-7600,

800-232-5463, 212-502-7662 TDD, [www.afb.org](http://www.afb.org)

Arizona State Braille and Talking Book Library, 1030 N. 32nd St., Phoenix, AZ 85008, 602-255-5578, 800-255-5578, [www.lib.az.us/braille](http://www.lib.az.us/braille)

Arizona State School for the Blind, 1200 W. Speedway, P.O. Box 85000, Tucson, AZ 85754-5000, 520-770-3824, [www.asdb.state.az.us/](http://www.asdb.state.az.us/)

Center for the Blind and Visually Impaired, 3100 E. Roosevelt, Phoenix, AZ 85008, 602-273-7411, [www.acbvi.org/contact.html](http://www.acbvi.org/contact.html)

Council for Exceptional Children, Division for the Visually Impaired, 1100 N. Glebe Rd., Ste. 300, Arlington, VA 22201-5704, 888-232-7733, [www.cec.sped.org](http://www.cec.sped.org)

DB-Link, 345 N. Monmouth Ave., Monmouth, OR 97361, 800-438-9376, 800-854-7013 TTY, [www.tr.wou.edu/dblink](http://www.tr.wou.edu/dblink)

Enhancing Arizona's Parent Networks (EAPN), <http://www.azed.gov/ess/eapn>

Foundation for Blind Children, 1235 E. Harmont Dr., Phoenix, AZ 85020, 602-331-1470, [www.the-fbc.org](http://www.the-fbc.org)

National Dissemination Center for Children with Disabilities, P.O. Box 1492, Washington, D.C. 20013-1492, 800-695-0285, [www.nichcy.org](http://www.nichcy.org)

Parent Information Network, Arizona Department of Education, Exceptional Student Services, 2384 N. Steves Blvd., Flagstaff, AZ 86004, 928-679-8102, 800-352-4558, [www.azed.gov/ess/pinspals](http://www.azed.gov/ess/pinspals)

Recording for the Blind and Dyslexic, 3627 E. Indian School Rd., Ste. 108, Phoenix, AZ 85018, 602-468-9144, 800-221-4792, [www.rfbid.org](http://www.rfbid.org)

Southern Arizona Association for the Visually Impaired (SAAVI), 3767 E. Grant Rd., Tucson, AZ 85716, 520-795-1331, [www.saavi.us](http://www.saavi.us)

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