VISUAL DISABILITY

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What is a Visual Disability?

- Visual disability—an impairment in vision that even with correction, adversely affects a child’s education performance, includes partial sight and blindness.
Types of Visual Loss

Impaired Acuity

Impaired Peripheral Fields

Blind spots in the visual field

Visual Acuity-how well a person can see at various distances

Peripheral Vision-width of a person’s field of vision, ability to perceive objects outside the direct line of vision
  • Tunnel vision-severe limitation in peripheral vision

• Low Vision-vision is still useful for learning
• Blindness-not having a functional use of sight
• Legally blind-individuals eligible to receive special tax benefits and materials
Characteristics

**Congeniality Blind**-Existing at birth or during infancy.

**Adventitiously blind**-occurring after the age of 2. (Remembers what some objects look like)

1.) **Students with Low Vision:**
- Have sufficient functional vision to read standard (12 pt. font) used in elementary to high school textbooks but not smaller
- Read at a slower rate and hold books closer to their eyes
- Some students need adapted, enlarged text versions of books. (Bookshare.org allows teachers to print reading materials in larger print)
- Students with limited visual field use personal readers. (audio books, people who read text to them, computer generated print to voice systems)
2.) **Students who are blind:**

- Students do not read print, the print is translated into non-print formats: recorded, print to speech and Braille.
- Braille-coded system of dots embossed on paper so that individuals can feel a page of text.

- Laser cane-has 3 invisible laser beams, when beam is not returned to the devise a sound alerts user there is a step down. A vibrating signal there is an obstruction ahead. It announces points of interest in area such name of streets.

- Guide Dogs-estimated 7,000 people in America use trained guide dogs, resource: guidedogsfortheblind.com
Causes

1. Infants that survive premature births
2. Very low birth weights of less than 2 pounds
3. Hereditary
4. Accidents such as household injuries
5. Sports activities can actually cause eye damage to thousands of children each year
Most Common Eye Problems

1. Myopia aka Near Sightedness
   A condition where the light that comes into your eye does not directly focus on the retina but in front of it

2. Strabismus aka Crossed Eyes
   Caused from the inability of the eye muscles to work together

3. Amblyopia aka Lazy Eye
   Caused by a misalignment of the eyes or one's eye ability to focus is better than the others

*Glasses, Surgery, Eye exercise are all successful treatment options for these conditions. However, in cases where the vision problem can be avoided, prevention is preferable.
Prevention

- Researchers are working to identify genes that cause some forms of blindness.
- Other medical advances: laser treatment, surgery and corneal implants also help reduce the incidence of visual disabilities among children or lesson their severity.
- Nearly 90% of all eye injuries and 50% of blindness cases can be prevented.
  - Putting sharp objects (even pencils) out of the reach of children
  - Being certain that toys are safe
  - Getting help as soon as possible when injuries do happen can make all the difference.
- *For those visual disabilities that cannot be avoided, their impact can be lessened through early and consistent treatment.*
Preventing Vision Loss

- **Home Eye Safety**
  - Pad or cushion sharp corners, such as those on furniture edges
  - Install locks on cabinets and drawers in kitchens and bathrooms
  - Store sharp personal items (cosmetics or toiletries), utensils, and desk supplies out of children’s reach
  - Do not purchase toys with sharp points, shafts, spikes, or dangerous edges
  - Avoid toys that fire projectiles
  - Keep BB guns locked safely away from children
  - Use proper restraints (car seats, boosters, seat belts) in cars
  - Implement extreme precautions when using fireworks

- **Sports Eye Safety**
  - Wear proper safety goggles, especially for basketball and sports that use racquets
  - Make sure the baseball batting helmets have face shields
  - Use U.S. Amateur Hockey Association approved helmets and face shields when playing hockey
  - Be aware that regular glasses do not provide enough protection.
Assessment

Early Identification:
- Photoscreening - a system used to test visual acuity for those that cannot actively or reliably participate in visual assessments. A special camera is used to take pictures of individual’s eyes that is examined for signs of visual problems.

Prereferral: Vision Screening
- Student’s visual acuity is tested in the nurses office using the Snellen chart - 2 versions, the letter “E” placed in various positions in different sizes and alphabet letters placed in different sizes.
- Normal visual acuity is measured by how accurately a person can see an object or image 20 feet away. Normal vision is 20/20.
Assessment

Signs of vision problems:
- Appearance of eyes- Ex) red, inflamed, crusty, swollen
- Problems with schoolwork- Ex) difficulty reading small print
- Behavior and movement- Ex) student appears clumsy, covers eye while reading, complains of dizziness, tilts head

Identification: Visual Assessments
- Two types of eye specialists provide diagnosis and treatment:
  - Ophthalmologists- conduct physical examination of eye, prescribe corrective lenses and medicines, specializes in eye disorders
  - Optometrists- measure vision, prescribe corrective lenses and make functional recommendations
- Normal visual acuity is measured by how accurately a person can see an object or image 20 feet away. Normal vision is 20/20.
- If child wears glasses or lenses, should have eye exam every year
What IDEA ’04 Says About It

- The IEP Team for each student with a visual disability must consider special factors about each child’s method of reading.

- All IEPs for children with visual disabilities must address the issue of braille instruction and the use of braille in the classroom settings.

- Evaluate the child’s reading and writing skills, educational needs, and future need for instruction in braille or use of braille.

- Provide instruction in braille and allow the child to use braille, if that method is deemed appropriate for that student.

- The decision whether to use braille with any student cannot be based on factors such as the availability of alternative reading methods or the availability of braille instruction.

- Once the decision is made, services and materials must be delivered without undue delay.
Laws and Regulations

- **These laws and regulation refer to the provision of library service to blind and physically handicapped persons in the United States**

- **Act of March 3, 1931**: To provide books for the adult blind

- **Public Law 89-522**: Relating to the furnishing of books and other materials to the blind so as to authorize the furnishing of such books and other materials to other handicapped persons.

- **U.S Code Sec. 135a**: Books and sound-reproduction records for blind and other physically handicapped residents; annual appropriations; purchases.

- **Public Law 104-197**: allows authorized entities to reproduce or distribute copies or phone records of previously published nondramatic literary works in specialized formats exclusively for use by blind or other persons with disabilities.

- **Public Law 93-112**: Protects the rights of individuals with disabilities

- **Public Law 101-336**: Cannot be discriminated in public and private sector employment, public accommodation, transportation, etc.
Instructional Accommodations

Classroom demonstration:
- The teacher describes each action taken during activity
- Allow student to physically explore materials before and after demonstration
- Use multisensory approaches
- Have student place his or her hands over the teacher’s hands during demonstration

Audio Visual Presentation:
- Describe verbally what other students are seeing
- Start with general description and provide more details and explanations

Physical Environment:
- Arrange furniture carefully
- Consider lighting needs-avoid glares from windows and computers
- Use contrasting colors-cover students desk with brightly colored paper
Texas School for the Blind and Visually Impaired

Educational Programs:
- **Comprehensive**: Full Time Student
- **Short Term**: 4-6 day, academic/TEKS instruction
- **Summer**: Fine arts, small business, adaptive academic skills
- **Post Secondary**: Training for adult living, employment, higher education for high school graduates

Admission:
- School district and parent referral
- Contact admissions coordinator for application
- School district holds ARD Committee Meeting
- Admission Committee notifies school district, principle decides program placement
- 5 days after enrollment, TSBVI meets with school district and ARD Committee develops IEP for future return to school district (reviews IEP every year)

Curriculum
- English language arts other languages, to the extent possible
- Mathematics and science
- Health physical education
- Fine arts and social studies
- Economics business education
- Vocational education history
Collaboration

TVI is a special educator who specializes in visual disabilities and services as a resource to other educators, parents, and students.

- Provide instruction in disability specific skills such as braille
- Reinforce concepts from the core academic subjects
- Conduct assessments to determine a student's abilities, needs, and necessary accommodations.
- Work with appropriate organizations and agencies to access instructional materials.
- Create materials to support academic success.
Collaboration

O&M instructor is a related service provider who teaches the skills necessary for students to independently navigate their classroom, school, home, and community.

- Evaluate a student’s functional vision to determine its use in O&M activities
- Assess the student’s O&M skills as well as their progress in the expanded core curriculum
- Provide instruction in various low-vision and mobility devices
- Help students orient themselves in various environments
- Teach students specific routes from one location to another
- Consult with family members and relevant school professionals on issues such as environment design, and services and equipment.
- Provide information on additional resources such as recreational opportunities or guide dog facilities
Collaboration

The primary responsibility for a student’s academic instruction still rests with the general education teacher.

As with all children, the relationships among family, school, and culture affect those with visual disabilities in many ways. (Repeating or rephrasing their communications, facilitating turn taking, and given directions and instructions contributes considerably to positive development in expressive and receptive language).

- You must help your child develop skills across a range of areas: communication, independent living, mobility, sensory development, fine and gross motor skills, cognition, and social skills.

- Students need to gain knowledge about their visual status, the cause of their vision problems, and the likelihood that it might improve or worsen.
Assistive Technology

- Assisted devices can be grouped into three categories
  1. **Visual Input Devices**: Equipment or technologies that help people with visual loss access visual information in the environment.
    - Ex: CCTV (closed-circuit television) uses television to increase the size of objects or print
  2. **Audio Input Devices**: Equipment or technologies that enable people to hear what otherwise would be read or seen.
    - Ex: Audio descriptions presents visual information on screen or stage via oral narrations
  3. **Tactile Input Devices**: Equipment or technologies that allow people to use touch to gain information.
    - Ex: Refreshable Braille Display allows for short sections of braille text to be downloaded to a computer.
Assisted Technology:

- **Lunar-Magnification** program for enlarged text from 2x to 32x with five different viewing modes.

- **Intellitalk**—Talking word processing program. Allows student to hear the letter, word, sentence or phrase as it is entered into the computer.

- **JAWS**-(Jobs Access with Speech) It intelligently looks at the screen and determines what to speak so unfamiliar applications can be used immediately.
Professional Organization

National Federation of the Blind:
National Organization of Parents of Blind Children

Programs:
- **Annual NOPBC Seminar**: five day seminar of activities for families of blind children
- **Mentors and Role Models**
- **NFB Magazine** for parents and teachers
- **Braille Pen Pal Program**: Slate Pals is a free pen-pal program for children aged 6-18 from around the world.
- **Educational Advocacy**: letter campaigns, federal and state committee, task forces are voice of parents
Texas Department of Assistive and Rehabilitative Services

- **Vocation Rehabilitation Program**: designed for adults whose visual condition limits their ability to begin or continue work

- **Business Enterprises of Texas**: helping individuals find work

- **Independent Living Rehabilitation Program**: adults who are blind or visually impaired to learn adaptive skills to continue to live independently with vision loss

- **Blind Children’s Vocational Discovery and Development Program**: assists children who are blind and visually impaired to develop their individual potential

- **Transition Program**: provides educational and career guidance for adolescents and young adults

- **Blindness Education, Screening and Treatment Program**: wants to help Texans keep their vision healthy

- **Criss Cole Rehabilitation Center (CCRC)**: located in Austin, is a residential program that offers intensive vocational and independent living training to Texans who are blind