

# Students with Visual Impairments in North Dakota Schools

## Informational Papers in Education

No. 2 in a series October, 2004

Providing guidance to local school districts on important topics  
State Superintendent Kirsten Baesler



### ACKNOWLEDGEMENTS

During the 2002-03 and 2003-04 school years, the ND Department of Public Instruction (DPI) brought together a group of professionals with expertise in the area of visual impairment to provide insight and guidance for DPI. A statewide survey was sent out to parents and professionals involved in the education of students with visual impairments. The goals of the survey were to obtain input in: (1) defining issues relating to the education of students with visual impairments and their families; and (2) methods to improve, resolve, and/or gain additional information relating to these issues. In an effort to resolve several of the issues discussed at the meetings and through the survey, the Informational Paper, *Students with Visual Impairments in North Dakota Schools*, was developed. The purpose of this document is to provide guidance to families, professionals, and others who are providing quality services for students with a vision loss in ND schools.

The DPI gratefully acknowledges the involvement of the professionals who assisted in the development of this document and to all professionals involved in the provision of high quality services for all students with a visual impairment and their families.



All education is special. All children are special. Are some more special than others? No, but because of exceptional abilities or special challenges, some require adjustments, additions, or changes to their programs. Those from low incidence disability populations and/or whose disabilities are more challenging may need extraordinary levels of specialized support. (NASDSE, 1999)

### IDENTIFICATION

The earlier a child with a vision loss is identified, the easier it will be to positively influence his/her future. Early identification is important because of the critical learning that takes place between birth and four years of age. Untreated vision loss can lead to delays in cognitive development, motor skill acquisition, social and emotional problems, and academic failure.

#### 1. When should a child be examined for a possible visual impairment?

A child should be examined by an optometrist or ophthalmologist as soon as a vision loss is suspected. Some possible indicators for vision loss include:

- Eyes crossed or turning in or out
- Eyes moving independently of each other
- Reddened, watering eye, encrusted eyelids, frequent styes
- Eyes shake or wander randomly
- Eyes are not able to follow parent's face

- Pupils of the eyes are excessively large or small
- Pupils of the eyes are not black; they appear to have a cloudy film on them
- Headaches, nausea and dizziness
- Burning or itchy eyes
- Blurring of vision at any time
- Double vision
- Rubs eyes frequently
- Does not appear to focus with central vision
- Turns or tilts head when looking at detail
- Covers or closes an eye when looking at detail
- Avoids close work or becomes tired after close work
- Can see better during the day than at night
- Complains of tired eyes
- Squints eyes
- Sits very close to the television
- Has difficulty walking and running; appears clumsy

Sec. 300.125 **Child Find** (a) General requirement. (1) The State must have in effect policies and procedures to ensure that – (i) All children with disabilities residing in the State, including children with disabilities attending private schools, regardless of the severity of their disability, and who are in need of special education and related services, are identified, located and evaluated; and (ii) A practical method is developed and implemented to determine which children are currently receiving needed special education and related services.

## 2. Who should provide a vision examination?

A child should be examined by an optometrist or an ophthalmologist if there is a concern regarding a child's vision. An optometrist is a doctor of optometry (O.D.) who specializes in the examination and treatment of conditions or impairments of the visual system. Optometrists prescribe glasses and are trained to detect problems with vision, eye diseases, and other abnormalities. An ophthalmologist is a doctor of medicine (M.D.) who specializes in diagnosis and treatment of defects and diseases of the eye, performing surgery when necessary or prescribing other types of treatment, including glasses or other optical devices.

## 3. What is visual acuity?

Visual acuity is an important aspect of a complete eye exam. Visual acuity refers to the clarity or clearness of one's vision, a measure of how well a person sees. The numerator indicates the distance (in feet) from the chart that the subject can read. The denominator indicates the distance at which a normal eye can read. For example:

- A person with a distance visual acuity of 20/20 is said to have "normal" vision. If a person with a distance visual acuity of 20/20 stands 20 feet from an object, he sees the object as well as others with "normal" vision standing 20 feet from the same object.
- A person with low vision, with a distance visual acuity of 20/100 would need to stand 4 feet from an object to see it as well as a person with "normal" vision standing 20 feet from the same object. (4/20 = 20/100)
- A person who is legally blind, with a distance visual acuity of 20/200 would need to stand 2 feet from an object to see it

as well as a person with "normal" vision standing 20 feet from the same object. (2/20 = 20/200)

## 4. What is the difference between low vision and blind?

The definition provided for visual impairment found in the Individuals with Disabilities Education Act, IDEA, states that: *visual impairment including blindness means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight (low vision) and blindness.* There is a range of vision loss for students who are low vision and for students who are blind. Low vision is defined as a mild to moderate visual impairment; visual acuity as measured between 20/70 and 20/200. A student with low vision is one whose vision can be used as a primary channel for learning but the low vision impacts daily activities. People with severe low vision may be classified as partially sighted and/or legally blind.

Legally blind is when the best corrected visual acuity is 20/200 or less or the person's visual field is 20 degrees or less. Legally blind is generally used to enable a person to access services funded by the government. Blind can range from students having unreliable vision and relying primarily on other senses, to being totally without sight and relying exclusively on other senses. Students who are blind learn via Braille or other non-visual media.

## 5. What is cortical vision impairment?

A cortical visual impairment is not caused by any abnormality of the eyes. Instead, it is a temporary or permanent visual impairment resulting from damage within the brain, often within the visual cortex of the brain. The degree of vision impairment can range from severe visual impairment to total blindness. The damage prevents the

individual from adequately receiving and interpreting what the eyes see.

## 6. How does low vision affect a student's ability to learn?

Low vision can result in delayed concept development which, without effective intervention, may severely impact the student's social, emotional, academic, and vocational development.

Students with low vision are typically limited in acquiring information through incidental learning since they are often unaware of subtle activities in their environment. They may require individualized instruction relating to specialized skills as well as specialized books, materials, and equipment for learning through alternate modes.



## EVALUATION PROCESS

Educational goals for students with visual impairments are essentially the same as those for all students. The goals are: effective communication, social competence, employability, and personal independence. In order to accomplish these goals, however, students with visual impairments require specific interventions and modification of their educational programs. An appropriate assessment of these unique educational needs in all areas relative to the disability and instruction adapted to meet these needs is essential to ensure appropriate educational programming. (NASDSE, 1999)

## 7. Should a teacher of the visually impaired be part of the multidisciplinary team when the student is identified as having a vision loss?

As stated in the DPI Guidelines: Evaluation Process (8/1/99), "the team must include at least one teacher or other specialist with knowledge in the

area(s) of suspected disability, including the low incidence disabilities such as vision impairment, deafness, and autism”. This means that when a student has a vision loss, the specialist is a teacher of the visually impaired. The teacher with this training has knowledge and experience in conducting and interpreting assessments for students who are visually impaired. This is also true for children who may have other disabilities in addition to vision loss. Students with additional disabilities should be carefully assessed from a multi-disciplinary perspective.

**8. What expertise does a teacher of the visually impaired bring to the evaluation team?**

The teacher of the visually impaired brings a variety of skills to the team including:

- Consultation to other team members about eye conditions, educational implications, and the appropriateness, modifications and interpretation of assessments for students who are visually impaired.
- Knowledge of the expanded core curriculum that could include skill development relating to alternative communication modes (i.e., Braille, large print), social interaction, recreation & leisure, use of assistive technology, orientation and mobility, independent living, career education and visual efficiency.
- Knowledge of specialized curriculum and materials to address deficits identified in the assessment process.

**Section 300.532 Evaluation Procedures** (c)(1) Any standardized tests that are given to a child – (i) Have been validated for the specific purpose for which they are used; and (ii) Are administered by trained and knowledgeable personnel in accordance with any instructions provided by the producers of the tests.

**Unique Factors to be Considered by the Multidisciplinary Team of a Student with a Visual Impairment**

The following is a list of unique factors that must be considered when conducting an evaluation or developing an IEP for a child who has a visual impairment.

- Cause and age of onset of visual impairment
- Degree of visual impairment
- Other disabilities and medical conditions
- Family and cultural characteristics
- Physical and psychological maturity of student
- Environmental characteristics
- Sensory development (visual, auditory, tactual, kinesthetic)
- Social development
- Concept development and reasoning
- Listening skills and study skills
- Leisure and recreation
- Orientation and mobility
- Use of media for literacy in reading and writing
- Career education
- Visual efficiency skills
- Motor development
- Independent Living skills
- Assistive technology devices and services
- Communication Modes
- Academics
- Low vision aids

**9. What is a functional visual assessment?**

Visual acuity is an important component of a clinical evaluation, but it conveys limited information. For instance, we may know that a student has 20/100 distance acuity, but the preferred or optimal print size for reading may not be apparent to the parents or teacher. The functional vision assessment is a detailed expansion of the clinical vision evaluation. This assessment provides a description of the student’s typical use of vision during everyday tasks in various environments like the student’s classroom and home. The information provided through the functional vision assessment will define the current effects

of the student’s visual impairment and potential use of vision by the student in certain conditions.

It is important to note that a functional vision assessment should be conducted prior to other assessments so that other team members are able to consider visual factors unique to each student before conducting their assessments.

Some of the specific aspects of a functional vision assessment include:

- Appearance of the eyes
- Pupillary reflexes
- Eye preference
- Acuity
- Field of vision
- Color vision
- Scanning
- Tracking
- Possible use of optical aids
- Optimal print size
- Reading distance

**Section 300.19 Native Language**  
 (a) As used in this part, the term native language, if used with reference to an individual of limited English proficiency, means the following: (1) The language normally used by that individual, or, in the case of a child, the language normally used by the parents of the child, except as provided in paragraph (a) (2) of this section. (2) In all direct contact with a child (including evaluation of the child), the language normally used by the child in the home or learning environment.  
 (b) For an individual with deafness or blindness, or for an individual with no written language, the mode of communication is that normally used by the individual (such as sign language, Braille, or oral communication).

**10. If a student with a visual impairment is not eligible for service under IDEA 97, what further involvement should a teacher of students with a visual impairment have in the education of that student?**

If a student with a visual impairment is determined to be eligible under Section 504 of the Rehabilitation Act, the

teacher of the visually impaired may be involved as a consultant in the development of the 504 plan.

The teacher of the visually impaired can provide valuable information to assist in the success of the student in the general education classroom. Teams implementing 504 plans for students who have a visual impairment should always consider the list of Unique Factors listed previously in this document.



## **INDIVIDUALIZED EDUCATION PROGRAM (IEP) PLANNING PROCESS**

Most children learn incidentally, without specific instruction, because they have watched someone else do something, or because they associate what they have seen with what they have heard. Children with blindness and visual impairment do not have this advantage and often must be specifically taught what other children learn incidentally. (NASDSE, 1999)

### **11. Should a teacher of the visually impaired serve as a member of the IEP team of a student with a visual impairment?**

A teacher of the visually impaired must be part of the IEP team of a student with a visual impairment. IEP teams must consider the full range of skills necessary to enable the student with a visual impairment to learn effectively. A teacher of the visually impaired is knowledgeable about vision impairments and their functional, developmental, and educational implications.

In addition to being part of the IEP team, a teacher of the visually impaired may:

- Provide training of staff who are directly working with the student
- Collaborate with the general educator, family, or other members of the team to discuss

the progress and adaptations for the student

- Provide direct service for the student
- Work with family members as a liaison between school and home
- Makes referrals for additional services
- Be the liaison between eye doctors and the IEP team.

**Section 300.344 Team (a) General.** The public agency shall ensure that the IEP team for each child with a disability includes – (1) The parents of the child; (2) At least one regular education teacher of the child (if the child is, or may be, participating in the regular education environment); (3) At least one special education teacher of a child, or if appropriate, at least one special education provider of the child; (4) A representative of the public agency who (i) is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities; (ii) Is knowledgeable about the availability of resources of the public agency; and (iii) Is knowledgeable about the availability of resources of the public agency; (5) An individual who can interpret the instructional implication of evaluation results, who may be a member of the team described in paragraphs (a) (2) through (6) of this section; (6) At the discretion of the parent or the agency, other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate; and (7) If appropriate, the child.

### **12. What is an Expanded Core Curriculum?**

A core curriculum is comprised of the academic subjects, a student is required to complete prior to high school graduation. In addition to the core curriculum, sighted students learn a large amount of valuable information through casual observation of their environment. Students with a visual impairment must be provided direct training through an expanded core curriculum to receive these same experiences.

The expanded core curriculum is defined as “expanded” because it encompasses not only the essential elements of the standard curriculum but also includes instruction of additional areas of need that are a direct result of a student’s visual impairment. The expanded core curriculum must be systematically and sequentially taught by professionals with specialized skills. The professionals may be a teacher of the visually impaired or an orientation and mobility specialist.

Components of the expanded core curriculum could include instruction in:

- Compensatory academic skills
- Communication modes, i.e. Braille, large print
- Social interaction skills
- Recreations and leisure skills
- Use of Assistive technology
- Orientation and Mobility
- Independent Living skills
- Career education
- Visual efficiency skills

### **13. What IDEA Special Factors should the IEP Team consider when creating an IEP for a student with a visual impairment?**

IDEA 97 includes a list of *special factors* that must be considered by every child’s IEP team. There are two *special factors* that focus specifically on students with visual impairments. These two *special factors* are the instruction and use of Braille and consideration of assistive technology and devices.

**Section 300.346 (2) Consideration of special factors.** The IEP team also shall – (iii) In the case of a child who is blind or visually impaired, provide for instruction in Braille and the use of Braille unless the IEP team determines, after an evaluation of the child’s reading and writing skills, needs and appropriate reading and writing media (including an evaluation of the child’s future needs for instruction in Braille or the use of Braille), that instruction in Braille or the use of Braille is not appropriate for the child; (v) Consider whether the child requires assistive technology devices and services.

#### **14. What factors need to be considered in defining the appropriate media for literacy for a student with a visual impairment?**

When a student with a visual impairment is ready to read or write, an evaluation is needed to determine the appropriate media for literacy. As part of this process, the team must consider the need for Braille instruction and provide reasons if this instruction is not included in the IEP.

There are many factors that must be considered when making this determination. One factor to consider is the student's visual condition. For example, a child who is totally blind will usually read using Braille, whereas, a low vision student may need ongoing assessment in his/her reading and writing skills to determine when to use large print and/or Braille.

Additional factors to consider are:

- Age
- General ability
- Visual and tactual functioning
- Visual prognosis
- Motivation
- Academic/non-academic demands
- Environmental conditions
- Career goals

#### **15. Why should assistive technology be considered for a student with a visual impairment?**

Assistive technology is not a luxury but a necessity for most students with a visual impairment. Technology increases the independence and freedom of choice for students with visual impairments. The appropriate assistive technology allows students with a visual impairment access to the world of information available to their sighted peers. Technology skills provide students with increased control over their school, home, or work environment.

Due to modern technology, Braille-reading students can access the appropriate material at the right time. Students with low vision now have a variety of assistive technology tools which allow them to access the instructional information that is needed to be successful in school.

To determine the appropriate assistive technology needs, the student's multidisciplinary team must provide appropriate evaluations of the student's technology needs by knowledgeable professionals. The *DPI Guidelines: Assistive Technology for Students with Disabilities* (March 1999), provides detailed information relating to assistive technology devices and services. This Guideline can be found at the DPI website – <http://www.dpi.state.nd.us> or by contacting your local special education unit director.

#### **16. What adaptations of educational services might be needed for a student with a visual impairment?**

To enable students who have a visual impairment to have full access to information within the school setting, appropriate classroom adaptations and use of technology must be considered during the evaluation and IEP process. There are a variety of accommodations, adaptations, modifications, supports, and adjustments that will enable a student with a vision loss to participate as fully as possible in the general curriculum and other school offerings.

Possible adaptations could include:

- Large print textbooks/worksheets
- Recorded textbooks/notes
- Preferential seating
- Copy of class notes
- Recorded lectures
- Braille transcription of books and materials
- Magnification device to access materials
- Adequate lighting

- Talking calculators/dictionary/tape measure, etc.
- Computers with speech
- Magnification software for computers
- Modified tests/assignments
- Extra time for tests and assignments

#### **17. What related services will benefit a child with a visual impairment?**

Many children require related services to achieve their IEP goals and objectives. The list of related services is not exhaustive and may include developmental, corrective, rehabilitation counseling, and other supportive services as are required to assist a child with a disability to benefit from special education. The types of related services needed by a child with a visual impairment will vary with each child. Possible related services include but are not limited to reader assistance, Braille transcription, occupational therapy, physical therapy and orientation and mobility.

Orientation and mobility which address travel and orientation within the environment is a necessary related service for many students with a visual impairment. Orientation and mobility specialists have the necessary knowledge and skills to assist students and staff with this service. Some of the responsibilities of the orientation and mobility specialist are:

- Orient the student to the school environment
- Teach independent travel in the community
- Consult with the staff who are directly working with the student
- Teach cane use or the use of optical devices
- Provide inservice training to school personnel and family members
- Participation as a member of the evaluation and IEP teams

**Section 300.24 Related Services**

(b)(6) (i) Means services provided to blind or visually impaired students by qualified personnel to enable those students to attain systematic orientation to and safe movement within their environments in school, home, and communities; and (ii) includes teaching students the following as appropriate:

- (A) Spatial and environmental concepts and use of information received by the senses (such as sound, temperature and vibrations) to establish, maintain, or regain orientation and line of travel (e.g. using sound at a traffic light to cross the street);
- (B) To use the long cane to supplement visual travel skills or as a tool for safely negotiating the environment for students with no available travel vision;
- (c) To understand and use remaining vision and distance low vision aids and tools.

**18. What accommodations can be made when a student with a visual impairment participates in statewide assessments?**

As stated in the *DPI Guidelines: Individualized Education Program Planning Process*, the purpose of accommodations is to help each student show what he/she knows and can do and to lessen the impact of the disability. The intent is to provide an equal opportunity; not to give an unfair advantage over other students. Accommodations should not change what concept or skills the test is assessing. For a student who has a visual impairment, some possible accommodations might be: Braille, large print, optical devices, illumination, reader assistance, assistive technology, increased time, and/or graphic interpretation. Educators must take into account the accommodations listed on the student's IEP.

**19. When should the length of the child's school day or an extended school year be considered for a child with a visual impairment?**

The student's IEP team has the responsibility to determine if the consideration of the length of the child's school day or an extended school year (ESY) is necessary for a student with a visual impairment. Reasons why ESY services may be needed vary from child to child. The IEP team must determine whether the learning that has occurred during the regular school year will be significantly jeopardized if ESY services are not provided. For some students, skills that enable the student to receive a free appropriate public education in the least restrictive environment can only be maintained by changes in the length of the child's school day or ESY services. A student with a visual impairment may need an expanded core curriculum as part of his or her IEP. Many times this can only be provided before or after the normal school day or during the summer break. The student's IEP team must determine the appropriate amount of time needed to implement the student's IEP goals and objectives so that a student with a visual impairment has equal access to the core and expanded curriculums.

**20. When considering the least restrictive environment for a child with a visual impairment, what potential harmful effects should be considered?**

The determination of the least restrictive environment, LRE, for a child with a visual impairment is made only after an IEP has been written that addresses the full range of the child's unique needs. A full array of services and continuum of placements must be considered as part of the IEP process. The options could include instruction in regular classes, special classes, special schools, home instruction and instruction in hospitals and institutions.

As part of the decision making process regarding least restrictive environment, the IEP team must discuss and document potential harmful effects of a placement on the child or the quality of services the child needs. The IEP team for a child with a visual impairment must consider the potential harmful effect a placement may have in key

areas. These areas could be in alternative learning media, independent living skills, orientation and mobility, assistive technology, social interaction, recreation and leisure, and career education. Failure to consider these areas may lead to inappropriate placements.

The child who is placed in the educational setting that will be most beneficial in addressing his educational potential is the least restrictive environment for that child. Blind and visually impaired students have the capability to grow up to be adults who are literate, mobile, social, employable, and independent. Appropriate services, including serious consideration of placement, will determine whether the student receives adequate instruction so that all of these attributes are attained. (NASDSE, 1999)

**21. What options must be considered when determining the least restrictive environment for a student with a visual impairment?**

The determination of least restrictive environment, LRE, must be based on the identified and unique needs of the child with a visual impairment. Each child's IEP team must fully consider ways to remove obstacles to educating the child with a visual impairment in less restrictive settings before proceeding to more restrictive setting. Each local education agency must ensure that a full continuum of alternative educational settings is available to meet the needs of a child with a visual impairment. Teachers of the visually impaired provide services in a variety of LREs. Typical service delivery models include: consultative, itinerant and resource room. Consultative services are provided for students participating full time in the general education classroom with minimal support services. The primary role of the teachers of the visually impaired is consultation services to parent, classroom teachers and school personnel. Limited time is spent in direct services. Itinerant services are provided for students who require specialized instruction to develop

## 22. What types of programs are offered through the ND Vision Services/School for the Blind?

The mission of ND Vision Services/School for the Blind, NDVS/SB, is to function as a statewide comprehensive resource center. NDSV/SB works cooperatively with related agencies in providing a full range of services to all persons who are blind or visually impaired, including those with multiple disabilities. A combination model of outreach and center based services is provided.

Regional outreach services and center based programs are provided to persons of all ages: infants and their families, students, and adults. These services include evaluation, consultation, and instruction in the expanded core curriculum areas. Center based short term programs include Specific Skills, Compensatory Skills, and Adult Weeks. The Vision Resource Center provides adaptive materials and equipment, large print and Braille textbooks, descriptive videos, and access to information.

Also offered are summer camps, an independent living skills program, and inservice training for parents, teachers, and others working with people with visual impairments. The school provides statewide leadership works with related entities ensuring that the specialized needs of persons of all ages who are blind or visually impaired are met. For more information go to

[www.ndvisionservices.com/](http://www.ndvisionservices.com/)

### Reference List

Department of Public Instruction  
*Guidelines: Evaluation Process*,  
8/1/99.

Department of Public Instruction  
*Guidelines: Individualized Education  
Program Planning*, 8/1/99.

Department of Public Instruction  
*Guidelines: Assistive Technology for  
Students with Disabilities*, March  
1999

National Association of State  
Directors of Special  
Education(NASDSE) 1999. *Blind  
and Visually Impaired Students:  
Educational Service Guidelines*,  
Alexandria, VA

### Resource List

**Office of Special Education**  
Director of Special Education  
Department of Public Instruction  
600 East Blvd. Ave., Dept. 201  
Bismarck, ND 58505-0440  
701-328-2277  
URL: <https://www.nd.gov/dpi>

**North Dakota Vision  
Services/School for the Blind**  
500 Stanford Road  
Grand Forks, ND 58203-2799  
701-795-2700 or 1-800-421-1181  
URL:  
<http://www.ndvisionservices.com/>

**American Foundation for the Blind**  
11 Penn Plaza  
Suite 300  
New York, NY 10001  
800-232-5463 or 212-502-7600  
URL: <http://www.afb.org>

**American Printing House for the  
Blind**  
1839 Frankfort Avenue  
Louisville, KY 40206  
1-502-895-2405 or 1-800-223-1839  
URL: <http://www.aph.org>