

Guidelines for Identifying Children with Disabilities

Visual Impairment



This manual is a compilation from various sources for intervention and assessment and is to be considered as “best practices” in the assessment and identification of students with Visual Impairments. With the exception of the Visual Impairment Definition and Evaluation Standards, Procedures and Participants (State Board of Education Rule 0520-1-9-.01), the information in these guidelines is not legally binding on the schools of Tennessee.

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INTRODUCTION



Section 1

The reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997 is the third major statutory reauthorization since PL 94-142 was first enacted in 1975. IDEA '97 and its accompanying regulations are integrated documents that expand on and strengthen the requirements of earlier versions. Although many sections remain unchanged, greater emphasis has been placed on the participation and progress of children with disabilities in the general curriculum, disciplinary situations, state funding mechanisms, new provisions for parent and general education teacher participation, and Individual Education Program (IEP) team membership and content. The revised law calls for a more educationally relevant IEP, an IEP that is more responsive to educational context.

IDEA'97 provides language that impacts the assessment and eligibility determination for all students who are suspected of having a disability. A child may not be determined to be eligible for special education or a child with a disability [Determination of Eligibility: §300.534 (b) (1) (i, ii)]¹ if the determinant factor for that eligibility determination is:

1. Lack of instruction in reading or math; or
2. Limited English proficiency ; and
3. The child does not otherwise meet the eligibility standards under §300.7(a) [Child with a Disability].

IDEA'97 addresses the evaluation and assessment of all students [Determination of Needed Evaluation Data §300.533(a)(a)(i-iii)] in requiring the assessment and alignment of core curriculum using research-based instructional strategies that are student focused. This would include review of existing evaluation data on the child, including:

- Evaluations and information provided by the parents of the child;
- Current classroom-based assessments and observations; and
- Observations by teachers and related services providers

Federal and state special education laws and regulations mandate that public school systems evaluate and, when appropriate, provide special education services to children whose educational performance is adversely affected by the identified disability(s). The Individuals with Disabilities Education Act includes visual impairments that adversely affect educational performance as types of disabilities requiring special education and related services. If the student² has difficulties that do not "adversely impact the child's educational performance"; the student is not eligible for services under IDEA.

¹ Throughout this document all references indicated within brackets [] refer to sections from the Individuals with Disabilities Education Act (IDEA).

² The words, "student" and "child", and the terms "visual impairment" and "visual disability" are used interchangeably throughout this document, and should be read with the same intent or meaning.

Regulations from IDEA'97 specifically require IEP teams to address and document "adverse affects" of the identified disability in the child's general education curriculum. These regulations have made a significant impact in many school districts with the increased use and application of federal requirements of Section 504 of the Rehabilitation Act of 1973. Section 504 is a civil rights statute which provides that: "No otherwise qualified individual with handicaps in the United States...shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." (29 USC § 794) The provisions of Title II of the American Disabilities Act of 1990 (ADA) and Section 504 are similar in nature, although interpreted consistently. When a child meets IDEA/state standards for identification as visually impaired, and "adverse affects" cannot be demonstrated, accommodations in the general education classroom should be developed through a Section 504 Service Plan by the Section 504 Review Committee.

Major emphasis was placed on the inclusion of all students with disabilities in the general education curriculum, including participation of all students in mandated statewide or district-wide assessments. IDEA'97 addressed these requirements [Participation in Assessments §300.138] in stating:

- "The State must have on file with the Secretary information to demonstrate that—
- (a) Children with disabilities are included in general State and district-wide assessment programs, with appropriate accommodations and modifications in administration, if necessary;
 - (b) As appropriate, the State or LEA -
 - (1) Develops and implements guidelines for the participation of children with disabilities in alternate assessments for those children who cannot participate in State and district-wide assessment programs;
 - (2) Develops alternate assessments in accordance with paragraph (b)(1) of this section; and
 - (3) Beginning not later than, July 1, 2000, conducts the alternate assessments described in paragraph (b)(2) of this section."

Consequently, specific accommodations have been developed and, as research-based information becomes available, continue to be revised that can address this need for students with a visual impairment. Significant progress has been made since the reauthorization of IDEA in 1997 for including students with visual impairments in large-scale assessments mandated at both district and state levels. Although there continue to be barriers and issues regarding statewide assessment that have not yet been resolved for students with visual impairments, the inclusion of all students in statewide assessments will continue to be an evolving process, with focus on equitable and fair assessment of all students.

Legislation specific to the assessment of students suspected of a visual impairment is significant with this reauthorization. Under Development, Review, and Revision of IEP [§300.346 (a)(2)(i-v)--Consideration of Special Factors], there are factors for consideration by all IEP Teams for any student with a disability, including:

- (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."

Other IDEA'97 language specifically pertaining to students with visual impairments may be found in the section of IDEA'97 that describes Related Services [§300.24 (b)(6)], including:

- (6) "Orientation and mobility services—
 - (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 community; 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
 - (D) Other concepts, techniques, and tools."

The intent of this document is to help teachers of students with visual impairments and administrators of programs serving students with visual impairments to operate within the school improvement process therein, supporting the spirit and intent of the reauthorization of the Individuals with Disabilities Education Act and regulations through quality practices. This document will support teachers of students with visual impairments as they "align curriculum and assessment and use research-based instructional strategies that are student focused." Other audiences for this document are special education administrators, school psychologists, parents, medical eye specialists, and other school staff. This document is written to guide professionals in education through a problem solving process, which begins with general education interventions and continues through initial evaluations, services, and transition into the community.

Registration³, referral for rehabilitation services, Supplemental Security Income, and income tax exemption. A person determined to be "legally blind" may have functional vision and may be a print reader or a braille and print reader. Students who are legally blind and not able to use print as a reading medium may require braille, recorded materials, and/or tactile and auditory materials as components of their educational program.

The student with low vision may be able to use print as the primary educational medium, even though adaptations may be necessary. The student with low vision has a visual acuity ranging from 20/50 or less in the better eye with best correction or a remaining field of vision of 60 degrees or less. In the case of a student with a vision problem and one or more additional disabling conditions, the vision problem may be considered the primary or the secondary disability.

The teacher of students with visual impairments must determine if learning problems are caused by visual disabilities as defined in Tennessee's eligibility standards and can be remediated using methods and adaptations for students with visual impairments, or if the learning problems are caused by visual perceptual problems. If visual acuity has been ruled out as the problem, the assessment team should refer the student for a psychological evaluation and/or to a teacher who specializes in learning disabilities. These specialists can make recommendations for methods and adaptations for students with visual perceptual problems. At this time, best practices involve remediation of specific skills, teaching compensatory strategies, and providing appropriate accommodations (Silver, 2001).

The American Academy of Pediatrics and the American Academy of Ophthalmology, issued the following statement in 1998 as a rebuttal for the claims of some optometrists and ophthalmologists: *"There is no peripheral eye defect that produces dyslexia and associated learning disabilities. Eye defects do not cause reversal of letters, words or numbers...no known scientific evidence supports the claims for improving the academic abilities of dyslexic or learning disabled children with treatment based on visual training, including muscle exercises, ocular pursuit, or tracking exercises, or glasses (with or without bifocals or prism)"* pp. 197-198 Ingersoll & Goldstein, 1993. There are many controversial therapies (e.g., scotopic sensitivity and optometric visual training) or diagnoses such as convergent insufficiency, currently being used in the United States. Teachers of students with visual impairments must be knowledgeable of documented research and publications of peer-reviewed journals that support a particular therapy before they endorse and support the therapy (Silver, 2001). Documented position

³ Congress enacted the Federal Act to Promote the Education of the Blind in 1879. This act is a means for providing adapted educational materials to eligible students who meet the definition of legal blindness. An annual registration of eligible students determines a per capita amount of money designated for the purchase of educational materials produced by the American Printing House for the Blind (APH). These funds are credited to Federal Quota accounts that are maintained and administered by APH and its Ex Officio Trustees throughout the country.

papers, supported by empirical, research-based evidence, should be the hallmark in the determination of appropriate educational interventions for a student with visual impairments.

TENNESSEE'S DEFINITION/STANDARDS



Section 2

1. Definition

State Board of Education Rule 0520-1-9-.01 (15) (p) "Disabilities"

"Visual Impairment Including Blindness" means impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

2. Eligibility Standards

- a. The child shall meet the definition of visual impairment and at least one of the following:
 - (1) visual acuity in the better eye or both eyes with best possible correction:
 - (a) Legal Blindness – 20/200 or less at distance and/or near;
 - (b) Low Vision – 20/50 or less at distance and/or near;
 - (2) visual field restriction with both eyes:
 - (a) Legal Blindness – remaining visual field of 20 degrees or less;
 - (b) Low Vision – remaining visual field of 60 degrees or less;
 - (3) medical and educational documentation of progressive loss of vision, which may in the future, affect the student's ability to learn visually, or
 - (4) other visual impairment, not perceptual in nature, resulting from a medically documented condition.
- b. The characteristics as defined above are present and cause an adverse effect on educational performance in the classroom or learning environment.

3. Evaluation Procedures

- a. Evaluation shall include the following:
 - (1) evaluation by an ophthalmologist or optometrist, which documents the eye condition with the best possible correction;
 - (2) a written functional vision and media assessment, completed or compiled by a licensed teacher of students with visual impairments, which includes:
 - (a) observation of visual behaviors at school, home, or other environments;
 - (b) educational implications of eye condition based upon information received from eye report;
 - (c) assessment and/or screening of expanded core curriculum skills (orientation and mobility, social interaction, visual efficiency, independent living, recreation and leisure, career education, assistive technology, and compensatory skills) as well as an evaluation of the child's reading and

writing skills, needs, appropriate reading and writing media, and current and future needs for braille;

(d) school history and levels of educational performance; and

(e) documentation and assessment of how visual impairment adversely affects educational performance in the classroom or learning environment.

4. Evaluation Participants

a. Information shall be gathered from the following persons in the evaluation of visual impairment:

(1) the parent/guardian of the child;

(2) an ophthalmologist or optometrist;

(3) licensed teacher of students with visual impairments;

(4) a general education classroom teacher; and

(5) other professional personnel, as needed: (e.g., low vision specialist, orientation and mobility instructor, school psychologist).

CHILD FIND/SCREENING AND REFERRAL



Section 3

COMMUNITY AWARENESS AND CHILD FIND

Federal law mandates *Child Find* for all students suspected of having a disability. (§300.125) Each school system is required to develop and implement, according to state and federal guidelines, a written plan for identifying and serving students suspected of having a disability.

For students with visual impairments, child find relies upon the cooperation of various agencies. Referrals are made to Tennessee Early Intervention Services (TEIS) from numerous agencies, hospitals, and medical personnel. Children referred to TEIS are served in their homes prior to the age of three when school systems assume responsibility for their education. In order to identify all children with visual impairment, community residents must be made aware of visual behaviors that warrant referral for screening. This information may be provided through day care centers, community agencies, Lion's clubs, Prevent Blindness America and other agencies that may see children prior to their entering school.

Involvement of Media/Communication Resources

A variety of methods may be used to disseminate information to the public about child find programs for students with visual impairment. Media such as newspapers, radio and television, newsletters to school personnel and other agencies, brochures provided by the health department, stuffers included in bills and statements are effective means of creating an awareness of the importance of early identification of children with visual impairments.

Referral for Special Education

Each school system must identify, locate, and evaluate all children suspected of having visual disabilities and who might need special education and related services. Each school system's general education program must conduct annual child find vision screening activities in order to identify students with special needs. Any person (parents, school personnel and/or community agency personnel) who reasonably believes that a child may have a disability may make a referral for vision services. It is preferable that referrals be in writing. Parents must provide written consent before the child is evaluated. The evaluation must assess the child in all areas of suspected disability. The evaluation and IEP process must be completed within 40 school days⁴ from the date the parent's signed informed consent is received by the school system.

⁴ Rulemaking Hearing Rules of the State Board of Education, Special Education Programs and Services, Chapter 0520-1-9 (3) – Referral, Initial Evaluation, and Reevaluation

Local educational agencies may need to pay for the diagnostic eye exam if the child is not under the care of an eye specialist.

A flowchart is included on the following page to clarify the steps and offer a suggested sequence for evaluating students suspected of having a visual impairment.

(Step 1) When a concern has been expressed regarding a child's vision, the parent is contacted for information about the child's prior history of eye conditions and treatment by eye care specialists. The referral process is explained and a copy of Rights of Children with Disabilities and Parent Responsibilities is provided to the parents.

(Step 2a) Most parents are aware when they have a child who is visually impaired and will have obtained appropriate eye care for their child. However, if a visual impairment is suspected and an eye doctor has not seen the child, the parent(s) needs to schedule a medical eye examination by an eye doctor.

(Step 2b) In either case, an eye report needs to be completed by the eye specialist and returned to the child's school or the teacher of students with visual impairments (TVI).

(Step 3) Once an eye report is obtained, the TVI reviews the report and determines whether the student meets the standards for eligibility as a student with a visual impairment.

(Step 4) If eligibility standards are not met, appropriate documentation procedures are to be followed, and the parent and school staff are informed.

(Step 5) If the student meets the eligibility standards for visual impairment as visually impaired, referral for a comprehensive visual evaluation is made.

(Step 6) The IEP chairperson contacts the parents and explains the evaluation process, specifies who will evaluate their child, and identifies types of assessments to be administered. Written parental consent to conduct the evaluation is obtained and a prior written notice explaining this decision is provided to the parents.

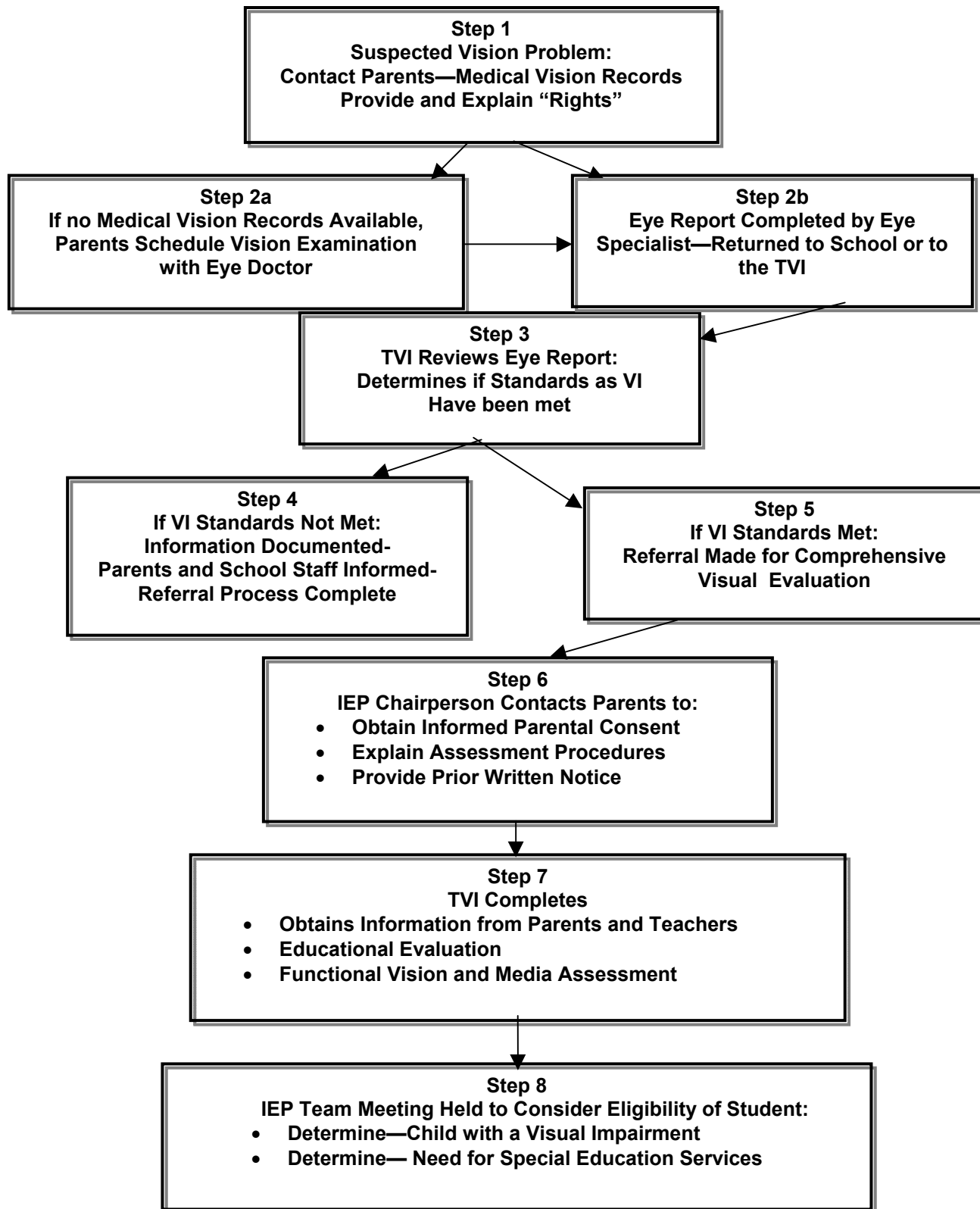
(Step 7) The functional vision and media assessment and educational evaluation is completed by the TVI, which includes input from the parents and teachers.

(Step 8) An IEP meeting is held:

- a. to determine whether or not the child is eligible for special education services as visually impaired because state disability standards are met and the student's needs cannot be met in the general education program, and
- b. if eligible, to develop an Individualized Education Program (IEP) based on the identified needs of the student.

FLOWCHART

SEQUENCE FOR EVALUATING STUDENTS SUSPECTED OF HAVING A VISUAL IMPAIRMENT





GUIDELINES FOR EVALUATION

Section 4

MEDICAL EVALUATION AND REPORT

Students, who have a medically documented eye condition, where best corrections meet the eligibility standards for visual impairment, may require special education services. Other students may be suspected of having a visual impairment, based on failure of vision screening and subsequent examination by an eye doctor. These students will require a referral to an ophthalmologist or optometrist for a comprehensive eye examination and may require special education services.

Some students who are referred for special education services are under the care of an eye specialist. If the child has been seen in the last twelve months, the doctor should complete the eye report form. The *Eye Report Form* (Appendix B) provides written documentation of the eye condition, which includes, but is not limited to:

- history of visual impairment,
- measurements of visual acuity, prescription(s), low vision aids, field of vision, and color perception,
- cause of visual impairment, and
- prognosis and recommendations.

The form should be returned to the student's school or to the TVI. If more information or clarification is needed, the TVI may contact the eye doctor. The medical information will assist the TVI in determining what formal and informal assessments will need to be conducted.

FUNCTIONAL VISION AND MEDIA ASSESSMENT

REVIEW OF SCHOOL HISTORY AND EDUCATION RECORDS

A component of the Functional Vision Assessment should be a statement of the student's present levels of performance in curricular areas of reading, writing, mathematics, science and social studies as well as a summary of social adjustment. This information may be obtained from scores from state mandated tests and/or from the classroom teacher. If current grade achievement levels are not available, or if the teacher of visual impairments determines that further evaluation is needed, the teacher of visual impairments should assess, or obtain assessment, of the student's levels of performance in the required areas. In compiling test information, the media in which the student was tested and any accommodations for testing should be noted.

The teacher of visual impairments should compile a summary of the student's school history specific to the visual impairment, including:

- when vision needs were first identified
- when and which services were initiated
- service level provided in successive grades and placements (direct, consultation, collaborative)
- special skills addressed (orientation and mobility, keyboarding, braille instruction, etc.)
- interruptions of continuity in services, such as due to protracted school absences
- medical information pertaining to changes in vision
- changes or addition of learning media, e.g., braille or auditory accommodations

EDUCATIONAL PERFORMANCE ASSESSMENT

A statement about the student's present levels is essential in setting goals and objectives and is a component of the IEP. When the review of school history and educational records do not identify current levels or additional information is needed, it is the job of the teacher of visual impairments (TVI) to assess or secure the assessment.

The present levels of performance on basic skills in reading, math, and writing are key to providing information for the Functional Vision Assessment and in developing the IEP. Assessments may be either criterion-referenced, comparing skills to mastery of specific performance indicators, or norm-referenced, comparing individual performance to that of a national or state sample. Some of these assessments are group administered, while others are individually administered.

The State Board of Education has approved Curriculum Standards that have been identified by the Tennessee Division of Curriculum and Instruction of the Department of Education for content areas across the curriculum and for each grade level. These standards are detailed on the state website and updated as necessary. These standards identify performance indicators and serve as criterion referenced indicators of achievement and are used in structuring course content.

Four of these curricular areas have been identified for testing:

- English/ Language Arts
- Mathematics
- Science
- Social studies

The Tennessee Comprehensive Assessment Program (TCAP) has been developed for monitoring and tracking student progress in these curricular areas. The norm-referenced information from the TCAP Achievement Tests, TCAP Competency Test, the

End of Course Test, and the Gateway Tests compare the performance of students with visual impairments with that of the normally sighted peers. The TCAP-Alt: PA (Portfolio Assessment) and TCAP-Alt: ASA (Academic Skills Assessment) provide a method for assessing progress in the four curriculum areas. More detailed information on statewide assessments, accommodations and the alternate assessment can be found in Section 6 of this manual.

The utility of norm-referenced tests for exceptional students has been questioned (M. Frase-Blunt, 2000), as have issues in the adaptability of such tests for students with visual impairments (Allman, 2000). For example, specific questions have been raised among educators of students with visual impairments regarding adapting and interpreting the extensive graphic illustrations in these tests.

The impact of testing accommodations, which provide access to testing, has not been fully determined. Detailed information from the TVI about the test accommodations is needed for any accurate administration and interpretation of test results. (See Section 6: Accommodations for Statewide Assessment).

Additional and more meaningful assessment, beyond state mandated tests, may be required to determine the student's present skill levels. A listing of tests for determining reading levels for normally sighted students has been compiled for Tennessee and is available as part of the English/Language Arts Standards.

Locating tests that have been transcribed into braille may be facilitated through the Tennessee Instructional Resource Center for Visually Impairments (TRCVI) and LOUIE database of the American Printing House for the Blind (Appendix C). Even with the provision of tests in braille, the TVI should be aware that not all tests may be appropriately adapted and transcribed into braille. Some tests may arrive with omitted items and without adjusted information for test interpretation. Even if a tactual item is provided in lieu of a print diagram or picture, it may not be a valid measure of mastery or a reliable test indicator. Large print tests that have been produced by photo enlargement of the regular print test (which is the typical procedure for production of tests in large print) may have sections where the font is smaller than large print. The TVI should be alert to the font size of fractions, diagrams, and dictionary or glossary sections.

Assessment of students with visual impairments with additional disabilities is an intricate task. A variety of professionals with a broad knowledge of curriculum and cognitive benchmarks and experience with students with visual impairments with a wide range of skill levels may be required for an accurate measure of the student's abilities. (Section 7: Consideration of Other Disabilities). Tests that have been found useful for students with visual impairments are available through the Products Catalog of the American Printing House for the Blind. Some have specific norms for students using braille or large print.

A Compendium of Instruments for Assessing the Skills and Interest of Individuals with Visual Impairment or Multiple Disabilities is available from Lighthouse International (Benoff, Lang, and Beck-Visola, 2001). This listing can serve as a reference for direct use by the TVI or as a resource for school personnel responsible for assessment.

FUNCTIONAL VISION ASSESSMENT

A teacher who is licensed to teach students with visual impairments (TVI) administers a Functional Vision Assessment (FVA). A Functional Vision Assessment helps the TVI determine how well a student uses his or her vision in performing daily activities/routines, with a variety of materials and in a variety of settings. It also helps to determine whether and in what ways the visual impairment interferes with the learning process and the educational supports needed for the student.

Teachers of students with visual impairments must consider a number of factors before they determine materials and strategies to use during the assessment of functional vision. Information collected from the cumulative folder, current assessment data, and interviews with parents and teachers will help guide the selection of materials, strategies and areas to assess during the FVA. Following are sample questions that might be considered in preparation for administering the FVA:

Can the student:

- Understand verbal directions?
- Follow simple one and two step directions?
- Respond verbally? By matching? By pointing? By head nodding? By eye gaze?
- Read and write?

Does the student:

- Use a communication device?
- Require special positioning and handling?
- Have a short attention span?
- Need practice items?
- Require special reinforcers?
- Wear glasses and/or use a prescribed low vision device?

In addition:

- Will the examiner need assistance with the assessment?
- Is the student following developmentally sequenced, functional life skills, or an academic curriculum?

Information for a FVA should be gathered from a variety of sources—student records, interviews with family, student and professionals, and administration of informal and formal techniques. Student records can supply information about previous testing, attendance, and progress. Interviews with the student, parents, and school staff can make the TVI aware of concerns and other valuable information for the assessment

report. Informal assessments should include observations, interviews and informal activities with the student. Informal techniques may be the most reliable method for obtaining information from students with multiple disabilities. These activities may include tasks such as writing, cutting, sorting, or other tasks based on concerns reported by the classroom teacher, parent or other staff who work with the student. Following are suggestions for completing observations:

- Observe student in a variety of settings and while performing a variety of daily routine activities
- Observe at different times of the day and over a number of days
- Note the color and sizes of materials used with the student
- Note environmental factors such as lighting, background, and complexity of visual tasks
- Observe near and distance vision tasks

Formal tests of visual functioning can provide information based on recognized procedures and standards. These tests may be in the form of checklists, eye charts, performance-based measures or criterion-referenced assessments. Again, the TVI will need to individually determine which tests will be used. These observations and tests may include, but are not limited to the following:

- Appearance of the eyes
- Behavioral abnormalities
- Peripheral vision
- Color discrimination
- Light sensitivity and preference
- Contrast sensitivity
- Visual perceptual skills
- Central near vision skills
- Depth perception
- Central distant vision skills

During the Functional Vision Assessment, the TVI should observe and document:

- Sizes of objects and print that are successfully discriminated
- Distances objects and print are viewed
- Color and/or contrast between object or print and background
- Complexity of tasks
- Use of prescribed glasses and/or low vision device(s)
- Body movements and visual behaviors exhibited by the student
- Comments made by the student
- Time required to complete tasks

Students diagnosed with the same visual impairment, visual acuity, and/or field restrictions may function very differently from one another in their daily activities. The TVI should remember that usable vision can fluctuate due to health, medications, lighting, fatigue, motivation, or stress. This fluctuation may greatly affect the student's functioning and must be assessed and monitored regularly by the TVI.

LEARNING MEDIA ASSESSMENT

The Learning Media Assessment (LMA) is an integral component of the Functional Vision and Media Assessment for students with visual impairments. For some students who are visually impaired, the learning media is clearly established with early learning experiences, but for others with low vision, determining the most useful primary learning media requires detailed evaluation with on-going reevaluations. Media options may range from exclusive use of either print or braille to a combination of braille, print with optical devices, and listening. For example, a student may use enlarged print or standard print with optical devices for math, and use braille for language arts activities, and recorded material for recreational reading.

Current State and Federal Guidelines require that the IEP team address a “consideration for the need for braille” for each student with a visual impairment. To provide information to address this consideration the TVI may draw on several resources.

The Learning Media Assessment of Students with Visual Impairments: A Resource Guide for Teachers (Koenig & Holbrook, 1993) and Functional Vision and Media Assessment for Students Who Are Pre-Academic or Academic and Visually Impaired in Grades K-12 (Sanford & Burnett, 2000) offer detailed frameworks for collecting and documenting information. Both of these instruments incorporate multiple sources of information: interviews from teachers, parents, and the student; pertinent medical information in student records; and direct observations of the student's functioning in a variety of settings.

CONSIDERATIONS IN LEARNING MEDIA ASSESSMENT

LEARNING MEDIA VARIABLES	VISION CONSIDERATIONS
Etiology And Stability Of Eye Condition	<p>Progressive eye conditions that are at risk of vision loss (congenital glaucoma, retinitis pigmentosa, etc.)</p> <p>Recent loss or gain in visual acuity</p>
Print Accommodations A Student Is Currently Using	<p>Type size needed</p> <p>Skill with low vision aids (closed circuit television, hand held magnifiers, additional illuminations, etc.)</p> <p>Focal distance (with any optical devices)</p> <p>Visual field (ranging from letters to words)</p> <p>Peripheral field (scanning and relocating text)</p> <p>Distance (such as a telescopic device)</p>
Reading Rate	<p>With classroom assignments at functional reading level</p> <p>Stamina for volume of class work assigned</p>
Writing	<p>Legibility to others</p> <p>Ability to read own handwriting</p> <p>Ability to make corrections</p> <p>Rate and stamina</p> <p>Keyboarding skills</p> <p>Basic writing skills for grammar, punctuation, capitalization, spelling, and organization</p>
Academic Achievement Levels	<p>Basic skills in reading (phonemic awareness and reading comprehension)</p> <p>Math (computation and reasoning)</p> <p>Compare basic skills with measured intellectual functioning & adaptive skills</p>
Age And Class Placement	<p>Compare achievement and grade placement</p> <p>Consider instructional time required by the TVI</p> <p>Current services provided for the student</p>

The LMA is unique for each student. For some, additional information may be derived from a clinical low vision evaluation and training with prescribed optical vision devices. (See Low Vision Assessment) For others, academic delays, which have been attributed to the student's visual impairment, may warrant additional testing to determine if there are learning problems beyond those attributed to the visual impairment. Students who have a significant cognitive impairment, in addition to their visual impairment, may rely primarily on listening and auditory skills, with braille or print literacy skills being employed as auxiliary learning media. (See Section 7: Considerations of Other Disabilities)

If it is determined to add braille as a learning medium for a student who has exclusively used print, several new instructional components must be addressed. First, adequate instructional time with the licensed TVI should be made in the school day for the time required to introduce the Literary Braille Code and learn to read with braille at a level of proficiency (Hicks and Barron, 1995). Short daily lessons are more effective than longer sessions provided two or three times per week. The new braille user must develop tactual skills as well as learning the 189 contractions and short-form words which are represented by the 63 arrangements of the six braille dots⁵ (Braille Authority of North America, 1994). For braille to become a useful learning medium, rather than a smattering of braille knowledge, priority in the instructional day will be required.

Second, the instructional challenge of providing a student with braille as an additional learning medium should be undertaken by a licensed TVI with firm knowledge of both the Literary Braille Code and the Nemeth Code of Mathematics and Scientific Notations. Resources for the teacher about instructional strategies for students adding braille as a learning medium may be found in Communications Skills for Visually Impaired Learners (Harley, Truan, & Sanford, 1996) and in Foundations of Education (Koenig, A. J., & Holbrook, M. C. (2000). Other resources include the American Foundation for the Blind, the American Printing House for the Blind, the Texas School for the Blind and Visually Impaired, and the Tennessee School for the Blind.

Third, the instructional strategy for adding braille as a learning medium will differ according to the student's reading fluency, basic math skills, and knowledge or writing skills. Therefore, the TVI should gather information to determine these levels.

Adding braille: Students who are fluent readers of print

The majority of the braille code used in textbooks below the high school level is introduced in the first three grades. The more common English words are more highly codified. Students who already have reading skills at a third grade level or above may

⁵ Braille Authority of North America. (1994). English Braille American Edition, 1994. Louisville, KY: American Printing House for the Blind.

focus on acquiring the knowledge of the code as quickly as possible by applying reading and writing literacy already acquired in print. Braille math skills can be introduced into the student's current math curriculum without requiring such a volume of new braille symbols, and instruction may make use of a talking calculator to transfer the student's existing math skills through braille and listening.

The building of braille speed and accuracy for these students, who are already readers, is enhanced when new braille skills are integrated into school subjects. For example, the student may begin to write answers for multiple choice tests in braille, using just-learned alphabet letters and numbers. Using new braille skills for a list of spelling or vocabulary words will allow braille to become functional in the classroom before braille punctuation or code rules are mastered. Two of the handful of manuals or instructional sequences that have been designed to teach the Literary Braille Code, have been primarily used with school-age students. These are Braille Too (Hepker and Cross-Coquillette, 1995) and Braille Connection: A Braille Reading and Writing Program for Former Print Users (Caton, Pester, and Bradley, 1990.)

Adding braille: Students who are beginning readers

Students whose reading and math skills are below a third grade level, will be acquiring braille skills in conjunction with basic word identification (phonemic awareness, whole word recognition, and syllabication), comprehension skills, and math (computation and reasoning). If there is a suspected need for braille, instruction should be initiated promptly, rather than waiting, to maximize future braille reading speed and efficiency. Early introduction of braille will maximize future braille reading speed and efficiency. The additional knowledge required to learn the braille code is less of a hurdle to master when acquired along with reading and math skills, than when massed together to meet an immediate learning need. A combination of braille and print reading is most effective for students with low vision for academic work. These students can learn to participate in selecting the most effective media for an assigned task. The Patterns reading series (Caton, Pester, & Bradley, 1982) and Braille Fundamentals (Cleveland, Levack, Sewell, & Toy, 2001) are two resources for reading and writing instruction for the beginning braille reader.

Learning Media Assessment Plan

For all students, regardless of academic skills levels, adding braille as a learning medium has an emotional component. The student's success in applying newly learned braille skills and utilizing more than one medium depends in part on the emotional adjustment and support and acceptance of the student, the parent and the classroom teacher.

Whether the student learning braille is a fluent reader or a beginning reader, listening is a major learning medium for all students with visual impairments. Students may need

specific instruction to build listening comprehension skills and acquire skills in manipulating listening equipment (changing speed and pitch), securing recorded information, and selecting which medium to use efficiently for specific tasks. Maximizing listening skills becomes especially important for students who have recently lost vision or cognition and no longer can rely on established reading skills.

It is important to secure adequate reading materials in the appropriate media. There are numerous sources of textbooks in braille, large print materials, and recorded media (see resource listing in Appendix C).

- LOUIE: An online database, maintained by the American Printing House for the Blind, of textbooks which are accessible in braille, large print, or recorded form from participating producers across the country.
- The National Library Service for the Blind and Physically Handicapped of the Library of Congress: Loans registered patrons recreational reading in braille, large print, or recorded form including the equipment to access the recorded books and electronic books which may be downloaded in braille.
- Recording for the Blind and Dyslexic: Has recorded textbooks for registered subscribers. This organization will also record texts that have not as yet been recorded.
- Tennessee Instructional Resource Center for Visually Impaired (TRCVI): Organization for parents and agencies to provide support to parents and families of children with visual impairments.

The LMA will provide information for the IEP Team, which is charged with the responsibility of determining the learning media. Specific instructional objectives and a schedule for implementing the objectives may then be developed. The goal is to enable the student with a visual impairment to develop independent learning skills and to use media, whether print, braille, recordings or a combination of these media as tools in all subjects.

DOCUMENTATION OF ADVERSE AFFECTS

Once the IEP Team has determined that a student's visual impairment and its impact on learning are within the guidelines for visual impairment, it must be documented that the impairment causes "an adverse effect on educational performance in the classroom or learning environment." Information obtained during the Functional Vision and Media Assessment of a student who has met the eligibility standards will verify that the student's disability is such that academic needs cannot be met through the general educational program (including a Section 504 Implementation Plan), and that the

student's progress would be adversely affected without specific curriculum additions, modifications and instructional strategies to meet those needs. The information obtained through the Functional Vision and Media Assessment will lead directly to the development of an IEP including goals and instructional objectives to meet the student's learning based on documented visual needs. It is not necessary that a child experience failure in school before adverse affects can be demonstrated. According to federal legislation and IDEA eligibility for special education services, an impairment is considered a disability when:

- That impairment has an adverse effect on educational performance [34CFR 300.7(b)(11)]
- A student's communication skills are so impaired that he or she requires specially designed instruction to address his or her educationally related communication needs. [20 U.S.C. 1402(3)(A) and 1402(25)].

After the IEP Team has determined that the student meets the eligibility standards, including the documentation of adverse affects, that decision will be documented as part of the Eligibility Report for special education services. Adverse affects will be unique for each student as identified through the Functional Vision and Learning Media Assessment. Determination of adverse affects for students who meet the standards for a visual impairment should consider:

- Need for Braille**
- Expanded Core Curriculum and Needs**
- Access to Specialized Instruction**
- Access to Specialized Materials**
- Necessary Classroom Accommodations**

EDUCATIONAL IMPLICATIONS FROM FUNCTIONAL VISION AND MEDIA ASSESSMENT

Recommendations concerning educational implications for students with various kinds of eye conditions must be drawn from several sources. The medical diagnosis gives very limited information needed to develop an educational plan. Guidelines can be drawn from teachers who have experience in teaching students with various kinds of eye conditions. However, it is most important to use the information obtained from the Functional Vision Media Assessment report. This information should be carefully considered along with the medical report, and the clinical low vision evaluation in the case of a student with low vision, in planning for these students.

Upon the completion of the medical evaluation, the Functional Vision and Learning Media Assessment, and the observations of visual behaviors, the TVI should document the implications of the visual impairment upon the educational needs of the child. Both immediate needs and long term needs should be considered. The TVI needs to include in the educational implications as much data as possible to enable the team developing the educational program to make informed educational decisions regarding the student.

EDUCATIONAL IMPLICATIONS FROM FUNCTIONAL VISION ASSESSMENT

The following educational implications are designed to follow the outline of the Functional Vision and Learning Media Assessment. In addition to this, all students need an assessment of the subject areas covered by the Expanded Core Curriculum for Students with Visual Impairments (Hatlen, 1996)

Appearance of Eyes

Abnormalities in appearance of the eyes may indicate a need for treatment and/or counseling in regard to possible stares and adverse comments by peers and adults.

Behavioral Abnormalities

Some students who are severely visually impaired may exhibit mannerisms such as light gazing, rocking and moving the hands or fingers in front of eyes. The substitution of meaningful activities and replacement behaviors may help to decrease such behavioral abnormalities.

Eye Responses and Eye Movements

Blink Response: The blink response, a protective movement of the eyelids in response to an object approaching the face, is an indication of the presence of some degree of vision and depth perception. Students without a protective blink response may be more prone to eye injuries.

Pupillary Response: If the pupils of a student are sluggish in responding (contracting) to a light source from a penlight, the student may have difficulty in adjusting to changes in lighting. If the pupils are of unequal size, the student may have difficulty in accommodating while reading.

Pupillary Reflection: Normal eyes will show a reflection of light in the middle of each pupil showing that the eyes are properly aligned. If the eyes are not properly aligned from birth to about age seven, the brain will suppress vision in the weaker eye causing amblyopia. Amblyopic students may be helped by proper seating. For example, if a student has very poor vision in the right eye, it might be best to seat him/her in the right side of the room.

Visual Attention: Students may not respond to visual stimuli due to neurological damage. They may need to be taught to use their remaining senses. Students with inconsistent responses to visual stimuli and poor fixation skills may benefit from specific visual skills training and environmental adaptations.

Convergence: Students who have convergence problems (inability of the two eyes to bring their visual axes to focus on a near object) may have eye fatigue from reading and near vision activities. Frequent rest periods may be needed, and more emphasis on listening activities may be required.

Eye Movements: Poor eye movements (shift of gaze, scanning, and ocular pursuit) can be the result of a variety of conditions. This may cause the student to exhibit more head movements, and to read slower than normal. Training in systematic eye movements may be appropriate for some students.

Eye Dominance: Students with mixed dominance (e.g. left-handed and right-eyed dominant) may have difficulties with activities that require them to line up a target with their dominant eye. The TVI may recommend seating and placement of materials that would accommodate a strong/better eye preference.

Peripheral Field of Vision: Traveling can be adversely affected by limitations in the visual field. Students may need to be taught to move their heads and scan before moving across an area. The physical education teacher should be advised of the need to modify activities due to the student's peripheral field limitations.

Color Discrimination: The classroom teacher may need to be made aware of students with color deficiency. Modifications of activities may include: providing good lighting, using bright, contrasting colors, labeling crayons and avoiding color-coded texts, graphs and diagrams. Activities such as labeling clothing and learning how to interpret traffic lights and signs may also be needed.

Light Sensitivity and Preference: Some students perform better in dim light (e.g., children with albinism) and some perform better in bright light (e.g., children with optic atrophy and optic nerve hypoplasia). The lighting requirements may be noted on the eye doctor's report. Generally, students should not face windows or glare. Some students may need to be seated away from windows, and some may need a desk lamp for additional lighting.

Visual Perception Skills

Assessment of visual perception skills is appropriate for preschool and primary level students who have not learned to read or write or students with multiple impairments causing cognitive delays. Such skills as visual discrimination, visual memory, figure-ground perception, eye-hand coordination, visual closure and visual sequencing may

need to be provided by the TVI using a developmental vision curriculum, e.g., *Program to Develop Visual Efficiency and Visual Functioning* (Barraga & Morris, 1980).

Near Vision

Students with limited near visual discrimination skills may need to be taught by pairing tactual learning with near vision activities. Systematic search patterns with extra time for locating objects may be necessary. Sometimes tactual learning may need to be considered as the primary learning mode.

Learning Media

Current Print Functioning: A number of factors can affect a student's print functioning such as near visual acuity, age of onset, cause of impairment, parental expectations, experience with printed materials and concept development. Students who have the same visual acuity and eye condition may differ greatly in their ability to use printed materials. The TVI should consult with the regular classroom teacher and parents in recommending the media of instruction and learning. Some students may be able to read regular print, some may need a low vision device, some may prefer large print, some may need to rely on listening, and some may rely on tactile or braille materials. Other students may find that combinations of these media work best for them in their instructional programs.

Writing Functioning: Using adaptive materials such as bold-lined paper may help students who have difficulty in copying print. Assignments may need to be shortened or additional time may be needed to enable the student to complete writing activities. Alternative methods of responding, such as multiple choice or word banks, rather than writing answers fully, may be used to shorten the writing task. Systematic instruction in handwriting, and keyboarding may be required for the student with low vision.

Depth Perception

Students with depth perception problems may need special instruction to help in the development of eye-hand or eye-foot coordination and in recognition of objects at a distance. The TVI should consult with the physical education teacher and suggest modifications as needed.

Distant Vision

Distant Visual Discrimination: Students who have difficulty with distant visual discrimination may need preferential seating or positioning for viewing classroom activities such as experiments and demonstrations. Chalkboard activities, overhead projection and map reading may require preferential seating for students with limited distant vision. The TVI may need to recommend that the student be given copies of class notes. The classroom teacher may be asked to verbalize everything written on

the chalkboard. The TVI may need to consult with the classroom teacher on ways to make viewing most meaningful.

Orientation and Mobility: Orientation and mobility skills may be noted throughout the functional vision assessment process. Special instruction may be needed in trailing, protective and search techniques, and in familiarizing the student with common areas of the school building. A thorough evaluation of orientation and mobility may be needed.

EXPANDED CORE CURRICULUM SKILLS ASSESSMENT

The Expanded Core Curriculum for Students with Visual Impairments (Hatlen, 1996) refers to the unique learning needs of students with low vision and blindness. In addition to assessments in the core curriculum or the curriculum all students learn in school, e.g., reading, writing, mathematics, students with visual impairments should receive assessments and instruction in each of eight content areas: compensatory skills including communication modes, orientation and mobility, social interaction skills, technology, independent living skills, leisure and recreation skills, visual efficiency, and career education. For a student with low vision or blindness, the Expanded Core Curriculum is an integral component for providing a “free and appropriate public education”.

In cooperation with parents, assessment in each area is the responsibility of the TVI and other professionals as indicated below. Formal and informal instruments that are used to assess each area are listed in resources in the appendices of this manual.

School districts that need assistance with assessments of students with visual impairments may wish to contact the Tennessee School for the Blind’s Outreach Services. Through cooperative arrangements, students enrolled in Tennessee public schools may receive assessments for compensatory skills including communication modes.

COMPENSATORY SKILLS INCLUDING COMMUNICATION MODES

These are the skills that students with visual impairments learn in order to access the general education core curricula. They include the use of tools, adaptations, modifications and behaviors that provide for access to educational activities and the visual environment (i.e., reading with braille enables a student to read textbooks used in academic classes.) Other compensatory skills may include but are not limited to: writing adaptations, organizational skills, use of recorded materials, listening skills, and the use of optical devices.

To determine which communication modes are appropriate for a student, a Learning Media Assessment (LMA) is performed and repeated at appropriate times throughout the student's education. The LMA will explore the student's most efficient and comfortable use of visual, tactual, and auditory senses for reading and writing. The LMA will also take into consideration other assessments including but not limited to the eye report, the observations of visual functioning, the clinical low vision evaluation, reading and writing assessments, and psychosocial assessments. Information from an orientation and mobility assessment may be considered as it pertains to the use of distance vision. The need for braille must be considered at each IEP meeting.

ORIENTATION AND MOBILITY

Orientation involves knowing where you are, where you are going, and how to get to a destination by interpreting information in the environment, while mobility involves moving safely through the environment. Orientation and mobility needs must be addressed for all students with low vision and blindness. Orientation and mobility assessments can be completed by TVIs and/or certified orientation and mobility instructors. Cane skills and independent community travel must be assessed and taught by the certified orientation and mobility instructors. Orientation and mobility emphasizes a fundamental need and right of people with visual impairments to travel as independently and safely as possible. Individual Education Programs (IEPs) which will result in the student's goal of independent travel in rural areas, suburbs and city environments should be based upon:

- development of body concepts, spatial awareness, and orientation strategies;
- posture and gait;
- understanding how the physical world is organized;
- use of special devices such as the white cane;
- use of transportation options; and
- the use of distance vision and devices (when appropriate).

SOCIAL INTERACTION SKILLS

Almost all social interaction skills are learned by visually observing other students and adults. Students with visual impairments need assessments to determine the extent to which they have acquired skills such as facial expressions, gestures, postures and personal space; how to accept or decline help graciously; and as needed, socially acceptable behaviors that may replace "*blindisms*" (self-stimulatory behaviors). Social interaction skills also relate to how an individual interacts with others regarding topics and issues of having a visual impairment or blindness.

INDEPENDENT LIVING SKILLS

Living independently requires that students with low vision and blindness learn how to function independently. Independent living skills range from basic personal

management skills to total independent living skills. Examples may include brushing teeth and toileting to tactually marking a stove or learning how to shop for groceries. Direct, sequential instruction is often needed for students to learn such skills as cooking or how to ask for or hire sighted assistants. Independent living also includes use of resources specific to the needs of students with visual impairments, e.g., where to purchase or repair an embossed wristwatch.

RECREATION AND LEISURE

While participating in a general or an adapted physical education class may lead to a healthy and active lifestyle, students with low vision or blindness also need to develop knowledge and skills that enable them to participate in activities in their communities. For example, to be a spectator at a school or community sports event, a student who is blind or with low vision needs to know how the sports field is organized and how the players move. To learn a new skill, e.g., ice skating, special attention needs to be given to teaching movements that cannot be observed in others.

CAREER EDUCATION

Sighted students learn about jobs and the world of work by observing others perform and complete tasks. This information is often not available to students with low vision and blindness. Students with visual impairments are also often at risk of being the recipients of diminished expectations for them to carry out age-appropriate chores and tasks. These students need to learn what skills they have or may develop that lead to employment. Further, these students need to learn about the governmental services that will provide special training and assistance as well as legislative information relating to reasonable accommodations that can be made to jobs that will allow them to become employed. By age 14, a student with low vision or blindness must have an Individualized Transition Plan (ITP) developed as part of the student's Individualized Education Program (IEP). While career education will be provided throughout the school years, formal assessments of interests and aptitudes will be needed for the development of the ITP.

ASSISTIVE TECHNOLOGY

Assistive technology assessments are conducted by persons who have special knowledge of low/high technology devices designed for students with low vision and blindness. Assistive technology devices are not necessarily electronic devices and may range from something as basic as a book stand or pencil grip (low technology) to a refreshable braille display (high technology). Although teachers of students with low vision have general knowledge about many devices, they are expected to learn specifics of devices that are used based on their students' needs. For students who have additional disabilities, assistive technology may include, but is not limited to, such

devices as augmentative communication systems with tactile overlays or a device that would enable a student who is deaf-blind to communicate with hearing and sighted students and adults. The need for assistive technology must also be discussed at a student's IEP meeting.

VISUAL EFFICIENCY

Assessments of visual efficiency are conducted by a variety of professionals, each of whom contributes to the assessment to determine ways in which a student uses functional vision and how he or she may improve visual efficiency. Starting with an eye report from the student's ophthalmologist or optometrist, the teacher of students with visual impairments performs a Functional Vision Assessment (FVA). This assessment describes the student's functional vision for various educational tasks. Lighting, spatial arrangements (e.g., size and distance of objects), contrast, color, and time are among the variables that are considered for near, intermediate, and distance tasks in different environments. The FVA is usually performed prior to a clinical low vision evaluation.

An optometrist or ophthalmologist with a low vision specialty performs the clinical low vision evaluation. This evaluation has two major purposes. First, the evaluation determines whether a student will benefit from optical devices for accessing standard print and distance vision tasks. Optical devices include but are not limited to magnifiers, prisms, monoculars, light absorptive lenses, therapeutic contact lenses, and closed circuit televisions.

Optical devices are then incorporated into the learning media assessment. In this way, braille, large print, standard print with optical devices, and other communication media, e.g., recorded materials and spoken output on a computer, may be considered for instructional purposes.

The second purpose for the clinical low vision evaluation is for teachers and parents to better understand how a student is using his or her functional vision. For example, a student with visual and additional severe disabilities may not be able to respond to typical eye tests in an ophthalmologist's or optometrist's testing procedures that require verbal or matching abilities. A clinical low vision specialist is better able to describe such a student's visual abilities and work with a TVI and parents to maximize use of vision for learning.

Once functional and clinical Low Vision Assessments are completed, the teacher uses this information derived from these assessments to plan instruction to increase visual efficiency and teach the use of optical devices for purposes of using vision in school and home environments.

DEVELOPING AN EDUCATION PLAN

A list of questions is presented for educators to consider when making decisions regarding adaptations to fit the needs of the student with a visual impairment. These questions are grouped in four areas:

Educational Environment

General Curriculum

Learning Media: Reading and Writing

Expanded Core Curriculum Skills

1. Educational Environment

The visual performance of students who have visual impairments can often be enhanced through careful consideration of the visual environment. By giving a sufficient quantity and quality of lighting, the learner may be better equipped to accomplish a visual task. This may include such needs as additional lighting or the need for devices and environments that allow for light control. Heightened contrast between the background and the visual task may improve visual efficiency. More time is often required to accomplish a visual task and should be determined based on each student's performance. Distance from the task and size of image should be adjusted to suit the needs of the learner. Size of image can be enlarged by using large print or prescribed optical devices. Reducing the complexity of the visual image may increase recognition ability. Visual recognition of printed materials becomes more efficient when these factors are carefully adjusted to meet the needs of the learner.

Some questions, which might be considered, include:

- What adaptations need to be made to the educational environment to allow the student the most favorable access to the curriculum?
- What adaptations need to be made in contrast between the background and the visual task?
- How can distance from the task to the eyes be adjusted to fit the needs of the learner?
- What kind of lighting is needed?
- What type of seating is best for optimal functioning?
- How can size of image be best enlarged?
- Does reducing the complexity of the visual image increase recognition ability?

- Does the student need copies of items that are on the wall, overhead, or on the board, etc. or can the student learn to use optical devices prescribed for distance vision, e.g., a monocular telescope?

2. General Curriculum

The teacher should include all curricular adaptations which are needed to permit the student to participate successfully in the general curriculum. Certain questions to consider might include the following:

- What adaptations to the general curriculum should be made which will allow the student to be as independent as possible?
- What modified pictures, tactile graphics or even real objects are needed to enable the student to understand the concepts?
- What basic experiences are needed to enable the student to understand the concepts in the curriculum? The teacher may help develop more accurate concepts by providing concrete experiences through field trips and bringing materials to the classroom for the student to explore.
- What kinds of materials/instruction are needed to teach the use of tools being used in the curriculum? (Example: television, movies, computers, experiments, etc.)

3. Learning Media: Reading and Writing

From the learning media assessment, the information should be reviewed to determine the adaptations needed for the student to function optimally in his/her environment. Specific questions should include:

- What are the impacts of the visual impairment on reading and writing?
- What adaptations are needed to enable the student to read and write more fluently?
- What adaptations are needed in working distance, print size, contrast, optical devices and time?
- How much emphasis should be placed on auditory skills development?
- What auditory areas need help: discrimination, memory, sequencing, overall comprehension, ability to ignore background noise?
- Does the student need different media for different activities? For example: braille may be needed in writing, auditory material in reading, print material may be needed in math.

4. Expanded Core Curriculum Skills

In addition to the academic needs in the general curriculum, expanded core (or unique needs) curricula should be considered. These needs are necessary because of the problems encountered due to the visual disability.

Visual Efficiency

- Does the student need a clinical low vision evaluation and prescribed optical device(s)?
- Does the student need instruction in the use of the prescribed optical device?
- Does the student need training for better utilization of functional vision?

Communication Skills

- What are the student's needs related to communication skills?
- What approach to reading instruction is appropriate?
- What word identification strategies are needed?
- Are there other learning problems that need to be considered?
- What are the best strategies for developing listening and writing skills?

Social, Recreation and Independent Living Skills

- What skills in social, recreation and daily living are impacted by the visual impairment?
- What special skills does the student need to participate with peers in social and recreational activities?

Assistive Technology

- Has the student had an assistive technology evaluation, if needed?
- What special assistive devices is the student currently using, or which devices may be needed such as scanners, voice output, writing guides, bold line paper, reading stands, refreshable braille, books on tape, etc.?
- What instruction is needed to enable the student to use these devices?
- What future needs can be projected in assistive technology?

Career Education

- Has the student received an individualized transition plan (ITP)?
- Does the student have special needs in career education?
- Have the student's interests been considered?
- What independent living skills are needed to prepare the student for post secondary education and employment?
- What support services are needed?

Orientation and Mobility

- Has the student had an orientation and mobility assessment?
- What are the student's assistive technology needs in orientation and mobility?
- Is special instruction by an orientation and mobility (O&M) instructor needed?
- Is the student able to become an independent traveler?

Several related factors, such as the degree of visual impairment and the age of onset of the visual impairment, should be kept in mind in attempting to form educational implications. Other factors to be considered in the educational planning are the intellectual level, age and experiential background, and adjustment to the general education curriculum. The type of eye condition is only one among a number of important factors that should be carefully considered in planning educational programs for students with visual impairments. For additional information the teacher should refer to books that have been written in this area such as Visual Impairment in the Schools (Harley, Lawrence, Sanford & Burnett, 2000).

FUNCTIONAL VISION AND MEDIA ASSESSMENT REPORT

The functional vision report must include identifying information about the student, a data review of school history and educational records, a summary of the student's eye condition based on information from the eye report, a summary of the student's clinical low vision evaluation (if appropriate), a summary of interviews and general observations of the student, a summary of the student's visual functioning, educational implications, an eligibility statement, and recommendations for services.

In addition, the functional vision report should provide a summary of the student's educational performance assessment in reading, mathematics, writing, and other areas of the core curriculum. It should specify the student's current communication mode(s)

based on the Functional Vision and Learning Media Assessment. A summary of the Expanded Core Curriculum Skills Assessment should include descriptions of current functioning and needed instruction in: compensatory skills, orientation and mobility, social interaction skills, independent living skills, recreation and leisure, career education, assistive technology, and visual efficiency.

Suggested components of a Functional Vision Report are listed below. However, school systems are encouraged to customize their reports based on the behaviors and characteristics of the children evaluated, as well as the contents of this chapter.

Outline of Report Format
<ul style="list-style-type: none"> ▪ Student identifying information ▪ Educational history ▪ Summary of medical eye report ▪ Summary of clinical low vision evaluation (if appropriate) ▪ Interviews and general observations ▪ Summary of visual functioning ▪ Educational implications ▪ Statement of eligibility ▪ Recommendations (including communication mode)
<ul style="list-style-type: none"> ▪ Present Level of Performance in CORE Curriculum ▪ Present Level of Performance in Expanded CORE Curriculum ▪ Recommendations

Low Vision Assessment

Clinical low vision evaluations are given for two reasons (see section on visual efficiency). First, they determine whether a student will be able to benefit from prescribed optical devices. These devices may enable students to read a standard print text and to see details at a distance, e.g., read a dry erase board or see signs. Second, a clinical low vision evaluation may provide information to teachers and parents about how children with visual and with additional disabilities use their vision. As a result of a Functional Vision and Media Assessment, a child may be referred for a clinical low vision evaluation if recommendations are made for any enlargement, reduced distance, or variation in lighting or contrast in instructional materials.

A referral should also be made if there is a question about how a child uses his or her functional vision or if there is a recommendation for instruction to increase visual efficiency. Following a clinical low vision evaluation and the implementation of recommendations, a second functional vision assessment will determine whether a student with low vision has improved or has the potential to improve his/her functional vision with instruction, e.g., in the use of prescribed optical devices.

ELIGIBILITY GUIDELINES



Section 5

IEP TEAM ELIGIBILITY DETERMINATION

When the Functional Vision Assessment, Learning Media Assessment, Expanded Core Curriculum Skills Assessment, Educational Performance Assessment, and other relevant assessments have been completed, the school district must arrange a meeting with the IEP team meeting. The IEP team will review the assessment results and determine whether or not the student meets the Tennessee definition/standards for visual impairment and whether the student needs special education services. If special education services are warranted, the IEP team will develop an IEP.

When developing an IEP for a student who is visually impaired, particular attention should be given to the following areas: specific modifications, accommodations and materials needed to access the general education curriculum; Expanded Core Curriculum (compensatory skills including communication modes, orientation and mobility, social interaction skills, independent living skills, recreation and leisure, career education, assistive technology, and visual efficiency); use of low vision devices; and access to a licensed teacher of students with visual impairments.

ORIENTATION AND MOBILITY NEEDS

Orientation and Mobility Services are defined as “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 community” [§300.24(b)(6)(I)]. This includes teaching students the following, as appropriate:

- to understand “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);
- 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;
- to understand and use remaining visual and distance low vision aids; and other concepts, technique, and tools.” [§300.24(b)(6)(ii)]

A visual impairment can have a significant impact on a child’s ability to keep track of his/her location in the environment (**orientation**) and on the ability to travel safely and efficiently in school and community environments (**mobility**). Specialized training, or

orientation and mobility instruction (O&M), is a related service that addresses the travel challenges frequently associated with a visual impairment.

Every time an IEP team meets to determine a visual impairment and need for special education, orientation and mobility instruction must be considered. Each initial evaluation and reevaluation requires an orientation and mobility screening and/or evaluation unless the IEP team agrees that they can determine need from existing data.

All children who are blind or who have low vision need a variety of travel experiences in order to develop safety skills, travel confidence, and an appreciation for independence. These experiences also are the building blocks for literacy, social competence and self-esteem. Expectations are based on the age of the student. Age expectations affect the content of the evaluation, assessment procedures, and subsequent recommendations.

Local education agencies (LEAs) must ensure that orientation and mobility services are provided by trained and knowledgeable personnel who meet appropriate state qualification standards. A licensed teacher of students with visual impairment can complete an initial screening of a student's orientation and mobility needs. However, a comprehensive evaluation in multiple environments by an orientation and mobility specialist will assure that individual mobility needs are considered.

The components of a comprehensive evaluation will be different for each child, because children vary in their needs and potential as independent travelers. The IEP team will be able to make an accurate determination of need if appropriate information is provided. Best practice for conducting an evaluation and obtaining critical information will consider the following statements and questions.

- Is the student traveling safely and as independently as possible in the school environment?
- Are there particular school environments/activities where the child's vision condition affects mobility (stairs, crowded halls, playground, gym, lunchroom, bus-loading area, off-campus field trips)?
- How does the child's community mobility skills and experiences compare with age-peer expectations?
- Can the child demonstrate age-appropriate orientation and navigation skills in community environments?

Students with low vision often need sequential instruction and experiences to learn the best ways to use their functional vision for travel.

- Does the child have mobility needs related to functional use of low vision?
- How does low vision affect the child's ability to maintain orientation?
- Does fluctuating vision affect travel abilities?

- Do lighting variables affect the ability to travel safely or independently? Has the child been evaluated in low light conditions? In glare? At night? While transitioning between lighting conditions?
- Does the child need to learn skills to compensate for the effects of low vision ?
- If the child uses a wheelchair, how does low vision affect wheelchair navigation and the ability to use accessibility options (elevators, power doors, ramps)?

Orientation and mobility skills develop over time. The need for orientation and mobility instruction may need to be included repeatedly over time in a student's IEPs. Safe, independent travel skills (especially traffic safety skills) cannot be learned in a few lessons. Community travel skills are acquired and practiced through repeated exposure and application over a period of years. Orientation and mobility training is driven by both current and future needs.

NEED FOR BRAILLE

The reauthorization of IDEA (1997) specifically states that students who are visually impaired must be provided with instruction in braille unless the IEP team determines otherwise. The TVI should specifically assess the need for braille and make a statement in the Functional Vision and Media Assessment report regarding the appropriateness of braille instruction for each student who is visually impaired. Factors to consider when making the decision to provide instruction in braille include, but are not limited to:

- visual functioning for near tasks,
- low vision assessment, prescription of and training in use of appropriate device(s),
- eye condition and prognosis (stable or deteriorating),
- cognitive ability,
- reading speed,
- eye fatigue and eye pain, and
- parent and student preferences.

Systematic and regular instruction from knowledgeable and appropriately trained personnel is essential for a student to become proficient in braille. IEP teams must ensure that the instructional time allocated for braille instruction is adequate to provide the level of instruction determined appropriate for each student.

SERVICES IN SPECIAL EDUCATION



Section 6

SERVICE DELIVERY CONSIDERATIONS

States are required to have policies and procedures for ensuring that, to the maximum extent appropriate, students with disabilities are educated with students who are not disabled, and that special classes, separate schooling, or other removal of students with disabilities from the regular educational environment occurs only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. In addition, the IDEA Amendments of 1997 require that each child's IEP contain an explanation of the extent, if any, to which the student will not be educated and participate with nondisabled students in the regular class and in academic, extracurricular, and other nonacademic activities.

Recognizing that the regular education classroom may not be the most appropriate educational setting for all students who are blind or visually impaired, federal law requires public agencies to provide a continuum of alternative placements or a range of placement options, to meet the needs of students with disabilities. Each IEP team should consider the full range of settings that could be appropriate depending on the individual needs of the student, including needs that arise from any other identified disabilities that the student may have. The following are options of the continuum of services for students who are blind or have low vision:

- a regular education class with needed support services provided in that classroom by an itinerant teacher of students with visual impairments;
- a regular education class with needed support services in and outside the classroom by the itinerant TVI;
- a vision resource class with a TVI available to the students for instruction in the regular education class and in the vision resource class;
- a self-contained class in a regular school that provides services that address needs arising from the student's blindness or visual impairments as well as other identified disabilities, if applicable; and
- a special school with a residential component that provides services that address the full range of the blind or visually impaired student's disability-specific needs, including those arising from other disabilities, if applicable.

STATEWIDE ASSESSMENT (TCAP)

Students with visual impairments must participate in state, regional, and district large-scale assessments in accordance with the 1997 Reauthorization of the Individuals with Disabilities Education Act (IDEA'97).

The IEP Team determines whether a student with a visual impairment will take the Tennessee Comprehensive Assessment Program (TCAP) Assessment or the Tennessee Comprehensive Assessment Program-Alternate (TCAP-Alt).

Students taking the TCAP State Mandated Tests (statewide TCAP and TCAP-Alt: ASA) may take the test with:

1. No accommodations,
2. Allowable accommodations, and/or
3. Special accommodations.

ALLOWABLE ACCOMMODATIONS

When *Allowable State Accommodations* are to be used with the TCAP assessment, documentation of these accommodations is to be attached to the IEP, as all decisions about accommodations are made through the IEP Team and thus become part of the student's Individual Education Plan (IEP). If an accommodation is not used throughout a student's daily educational instruction, it is not advisable to use the allowable accommodations during assessment. The student's IEP Team makes decisions regarding the use of Allowable Accommodations when considerations are made for the use of Special Accommodations.

SPECIAL ACCOMMODATIONS

IEP Teams must complete the *State/District-Mandated Assessments* section of the IEP and attach the appropriate Accommodations Addendum for each TCAP Assessment that will be administered to the student during the school year. The IEP Team will need to verify the student meets specific requirements before "Special Accommodations" may be used. All special accommodations used must be documented on the IEP as a classroom accommodation that has been used consistently during the school year. Directions for completing the Special Conditions Accommodations documentation are provided in *Individualized Education Program (IEP) – Instructions for State IEP*, which can be found on the 'Special Forms' page of the special education website at: <http://www.tennessee.gov/education/speced/seassessment/>. Special Education personnel are responsible for administering "Special Accommodations". The IEP Team determines which of the special conditions is appropriate for the student with a visual impairment for the specific tests. Students may use multiple accommodations. TCAP

tests include achievement, writing, high school subject content mastery, and gateway assessments.

ALTERNATE ASSESSMENT (TCAP-ALT)

Students with disabilities who meet participation requirements for the TCAP-Alt comprise a very small percentage (1% or below) of the total school population. The IEP Team determines when a student with a visual impairment should participate in the alternate assessment to the state mandated TCAP tests.

After the IEP Team has agreed the student meets participation standards for the alternate assessment, a determination is made as to whether the student will participate in the TCAP Alternate Standards Assessment (TCAP-Alt ASA) or the TCAP Alternate Portfolio Assessment (TCAP-Alt PA). When the TCAP-Alt ASA is the most appropriate alternate TCAP assessment, the IEP Team must provide the assessment appropriate for the student's assigned grade level. Both "Allowable Accommodations" and "Special Accommodations" may be used when administering the TCAP-Alt ASA.

The IEP Team should carefully follow all instructions when making TCAP-Alt testing determinations. Instructions for the decision-making process of the IEP Team, administration of accommodations on TCAP assessments, and the TCAP-Alt ASA and Portfolio Assessments may be found on the special education website at: <http://www.tennessee.gov/education/speced/seassessment.htm>.



CONSIDERATIONS OF OTHER DISABILITIES

Section 7

Many students who are identified with a visual impairment will have concomitant disabilities that impede their progress in acquiring skills through the general education curriculum. Some of these disabilities may in fact be due to the same genetic or developmental factor, which contributed to the student's identified visual impairment. Frequently, these additional disabilities are overlooked once the student has been identified as eligible with a visual impairment. This section provides guidance for determining when other disabilities may be causing an adverse affect on the student's progress within the general education curriculum, and best practices in the evaluation of "suspected" concomitant disabilities.

The determination of visual impairment for a student does not exclude the possibility of the existence of other disabilities. In fact, of the 15 disabilities utilized in Tennessee which do not specifically refer to vision, all can exist along with vision impairment or, in the case of multiple disabilities, subsume vision impairment as a component. These would include:

- Autism
- Deafness
- Developmental Delay
- Emotional Disturbance
- Functionally Delayed
- Hearing Impairment
- Intellectually Gifted
- Mental Retardation
- Multiple Disabilities
- Orthopedic/Physical Impairment
- Other Health Impairment
- Specific Learning Disabilities
- Speech or Language Impairment
- Traumatic Brain Injury

In each case, the requirements for determining eligibility for the other educational disabilities apply as written, with some assessment adaptations necessary, along with experience in how various functions can be affected by vision limitations.

Assessments that are used to determine the existence of a disability for which a student may require special services, compare that student to the population of same-age peers as a whole, rather than to an isolated population of students with similar disabilities. Therefore, it is not appropriate to search for assessment procedures developed only for individuals with disabilities. Instead, the course of action should be to compare students

with visual impairments as much as possible to non-disabled students within the same age range, leaving out the procedures which cannot be administered, and reporting any adaptations which may deviate from standardization.

A number of the above listed conditions will require intelligence testing in order to determine eligibility. Generally speaking, when the student is capable of answering questions, the verbal portions of an individually administered intelligence test (such as verbal scales of the Wechsler intelligence tests, or verbal subtests of the Stanford-Binet) will provide the best estimate of that student's intellectual functioning. Historically, students with visual impairments and no additional disabilities have been quite successful in providing answers on such procedures, although they may not clearly understand some of those answers if their everyday experiences have been limited. In fact, they are likely to score higher than average on subtests tapping verbal memory, because of more than usual practice utilizing this function. Estimating intelligence entirely from verbal functioning will slightly reduce the likelihood of a valid determination, but correlation of verbal intelligence with academic achievement has always been high. Performance subtests can also be administered when the student has vision, but results should not be combined to determine full scale or composite score as best estimate of intellectual functioning, unless the discrepancy between the verbal intelligence and performance intelligence quotients is minimal. Instead, handling of performance items can be observed as additional information regarding how that student functions visually.

There has been doubt expressed by some psychologists as to whether a student can be termed learning disabled if also visually impaired, as learning disability guidelines require the ruling out of learning problems primarily resulting from "visual, hearing, or motor disabilities". Those who are unfamiliar with patterns of test results caused by poor visual acuity or other visual impairments may be more comfortable attributing all deficits to a documented acuity problem than trying to determine which educational deficits stem from other causes. This determination is clear-cut in verbal subtests; as no significant deficit in scores can be attributed to vision alone. Differentiating on performance subtests is more complicated and often requires experience, but it can be important, especially when dysfunction is in visual perception rather than acuity, as remediation may require the expertise of a learning disability specialist rather than a vision specialist. As this is not intended to be a manual regarding psychoeducational testing, detail regarding patterns of test results will not be offered. However, it can be definitively stated that a student may have a disability in visual acuity (i.e., in what the student can see) and also a disability in visual perception (i.e., in how the brain processes visual percepts), and that the student may require services to counteract both disabilities separately in order to maximize educational opportunities.

APPENDICES



Section 8

APPENDIX A

SCREENING AND PRE-ASSESSMENT

General Education Vision Screening Guidelines

Children's Vision Screening Referral Summary

GENERAL EDUCATION VISION SCREENING GUIDELINES

According to Prevent Blindness America (1998), vision problems affect one out of twenty preschoolers and one in four school-age children. They report that over 80 percent of preschool and school-age children never receive a vision screening. Most persons are visual learners, acquiring approximately 85 percent of all knowledge through vision. Therefore, it is imperative that a possible visual problem be identified as early as possible

Vision screening is the responsibility of the general education program. Each school system in the state of Tennessee is required to conduct system-wide grade level screening. Vision screening is required two times during grades K-3, and twice during grades 4-8. It is recommended that grades K and 2 be screened in the lower grades, and grades 4 and 8 are screened in the upper grades be screened for vision problems. Students in all classrooms in the specified grade level must be screened. This screening does not require parental permission; however, parents should be notified of screening results. Other students who should be screened are those who are new to the school system and those suspected of having a vision problem by their teachers. School systems may utilize school personnel, volunteers or agencies to conduct their system-wide screening. Minimum procedures for vision screening include distance and near vision acuity. Muscle balance, visual field, depth perception and color perception may also be included. The *Vision Screening Results Form* may be used to record the results of vision screening. If a student fails any of the areas below, a second screening should be done as confirmation of the problem. This second screening is a continuation of the initial screening and should be administered on a different day, if possible. The practice of confirming the results of the initial screening should reduce errors and/or over-referrals. Failure in one or more of the following areas should be confirmed by a second screening:

- An acuity of 20/40 or less in either eye for distance or vision for children grades K through 3
- An acuity of 20/30 or less in either eye for distance or near vision for children grades 4 through 12
- A difference of two lines or more between eyes

It is not necessary for students who have already been identified with visual impairments to undergo vision screening and/or a referral to an eye specialist.

REFERRAL FOR EYE EXAMINATION

A vision-screening program must include a referral for an eye examination. Follow-up procedures should include appropriate medical examination and intervention. Screening

personnel should notify those responsible for follow-up when students fail the screening. Results of the final screening should be recorded in the student's cumulative record.

Distance and near vision screening results are usually reported as visual acuity and represent central field vision. The optimal distance for testing distant visual acuity is twenty (20) feet. Visual acuity is recorded as a fraction in which the numerator represents the test distance and the denominator represents the row of letters that can be read on the chart. For example, acuity of 20/100 indicates that a child reads at 20 feet what the normally seeing child should be able to read from a distance of 100 feet.

METHODS OF SCREENING FOR POSSIBLE VISION PROBLEMS

Screening of Distance Vision

Screening of distance vision may be done in three major ways: 1) screening at optical distance using a stereoscopic instrument, 2) screening at physical distances using a variety of charts or cards which are manipulated by the screening personnel, and 3) photoscreening.

1. Screening using a stereoscopic instrument

Two instruments are typically used for screening at optical distances; the *Keystone Telebinocular* and the *Titmus Vision Tester*. Each instrument includes appropriate cards for assessing near and distance acuity, fusion, muscle balance, depth perception and color perception when appropriate.

Instructions for conducting screening using the *Keystone Telebinocular* and the *Titmus* are provided with the machines. These instructions should be followed very carefully to ensure valid results. The screening personnel should keep in mind that the two stereoscopic instruments mentioned above tend to over-refer. The screener should select a quiet and private place to conduct the screening. The instrument should be placed on a table close to an electrical outlet. It may be necessary to have an electric adapter and a spare bulb. Forms for recording results should be next to the instrument. Chairs should be provided for the child and the screening personnel.

2. Screening at Physical Distances

Screening at physical distances involves the use of a variety of charts, cards, and other materials, which are manipulated by the screening personnel. In this method, screening personnel actually measure the physical distance between the student being screened and the various charts or other instruments being used.

The room selected for vision screening using the second method should be quiet and provide good lighting. If distance screening is to be conducted in the same room

as the other areas to be screened, the room must be large enough to accommodate the screening distance indicated on the chart.

The *Snellen Chart* is considered to be the most reliable instrument for vision screening. Unlike the stereoscopic instruments, use of the Snellen Chart is less likely to result in over-referral due to failure on the screening. If a stereoscopic instrument is used in the initial screening and a child fails that screening, it would be beneficial to use the Snellen or a similar instrument for the second screening.

The tests for distance vision will not detect the child with hyperopia or farsightedness. The Plus Lens Test is a more reliable test to detect hyperopia. The child's vision is checked using the Snellen Chart or one of the binocular instruments while wearing plus lenses mounted in a small, inexpensive frame. The plus lenses are of 2.25 diopters for all ages. If the child can see the 20-foot line at twenty feet from the chart with both eyes while wearing these lenses, a referral should be made. Many of the stereoscopic instruments provide their own criteria for screening with the plus lens test (Harley, Lawrence, Sanford, & Burnett, 2000).

Screening Very Young Children or Children with Multiple Disabilities

Other charts may screen children who are unable to respond to the Snellen Chart because of developmental level or multiple disabilities. The Snellen E Chart, the Apple, House, Umbrella test or the *Symbols for 10 Feet* Chart (Lighthouse International) may be used. Other materials that may be appropriate are the Lea materials and the Home Eye Chart (Vision Associations), for screening preschool children.

A checklist titled *Guide to Testing Distance Visual Acuity* (Prevent Blindness) is available in an easy-to-use format. It includes a diagram of room set-up, specific instructions for preparing the child, and interpretation of test results.

3. Photoscreening

Photoscreening is currently being used by various agencies such as the Lions Eye Center to detect potential vision problems in pre-literate children, ages six months to four years. The photoscreener takes two black and white pictures of the eye which are later evaluated by eye care professionals.

Screening at Near Distance

Near vision screening is typically conducted by one of two methods: screening using stereoscopic instruments or screening using near vision test cards.

1. Screening using stereoscopic instruments

The same stereoscopic instruments used for distance screening may also be used to screen for near acuity. While these instruments do tend to over-refer, they do offer

some advantages over a hand held chart in that they provide for a constant illumination and object distance (Harley, Lawrence, Sanford & Burnett, 2000, p. 126).

2. Screening using Near Vision Test Cards

Near vision is commonly tested using one of several reading cards, which are available from a variety of sources. The reading card is ordinarily held at a distance of fourteen inches from the eye. The reading distance for low vision children and illumination should be recorded. Jaeger and point-print denote size, which can be used in designing educational material. Jaeger thirteen to eighteen point type is largely used in books for first grade and low vision children (Harley, Lawrence, Sanford & Burnett, 2000, p. 126). Some examples of reading cards that may be used include the ETDRS Near Chart (Prevent Blindness America, 1996), Rosebaum Pocket Vision Screener and the Lighthouse Near Vision Acuity Test. Many of these cards may be obtained through Prevent Blindness America or Lighthouse International.

Children's Vision Screening Referral Guidelines

Refer the child who shows possible appearance, behavior or complaint signs of a vision problem.

- Eye(s) turning inward or outward
- Red-trimmed, encrusted or swollen lids
- Styes or infections
- Possible eye injury
- Thrusting head forward
- Squinting or frowning
- Closing or covering one eye
- Blurred or double vision
- Sees blur when looking up after work
- Watering eye(s)
- Upper lid touching or partly covering pupil
- Presence of white pupil when looking directly at the child's eyes, or in photo
- Rigid body when looking at distant objects
- Tilting head to one side
- Excessive blinking
- Headaches, nausea or dizziness
- Burning, scratchy or itching eyes
- Unusual sensitivity to light

Guidelines for the distance acuity screening (Snellen Chart)

Age of Student	Starting Line	Refer the child who does not pass the line with one or both eyes when re-screened.
5 years and younger	20/50	20/40
6 years and older	20/40	20/30

Source: Adapted and modified from Prevent Blindness

APPENDIX B

ASSESSMENT AND DOCUMENTATION FORMS

Assessment Documentation

Letter to Ophthalmologist or Optometrist

Eye Report for Children with Visual Problems

VISUAL IMPAIRMENT
Assessment Documentation

Name of Student: _____ Grade: _____ Date of Birth: _____ Age: _____
School System: _____ School: _____

1. A licensed teacher of students with Visual Impairments conducted a written functional vision and media assessment which included:
 - Observation of visual behaviors at school, home, or other environments
 - Educational implications of eye condition based upon information received from eye report
 - School history and levels of educational performance
 - Formal/informal tests of visual functioning

2. Assessment and/or screening of expanded core curriculum skills included:
 - Orientation and mobility
 - Social interaction
 - Visual efficiency
 - Independent living
 - Recreation and leisure
 - Career education
 - Assistive technology
 - Compensatory skills
 - Evaluation of the child's reading and writing skills, needs, appropriate reading and writing media, and current and future needs for braille

3. An ophthalmologist or optometrist indicated at least one of the following (Check all that apply).
 - Central visual acuity in the better eye or both eyes with best possible correction of 20/50 or less
 - Reduced visual field of 60 degrees or less with both eyes.
 - Medical and educational documentation of progressive loss of vision, which may in the future, affect the student's ability to learn visually,
 - Other visual impairment(s), not perceptual in nature, resulting from a medically documented condition.

Explain or reference data findings: _____

4. An orientation and mobility screening and/or evaluation was conducted to determine if there are related mobility needs in home, school, or community environment.

5. Documentation and assessment of how the student's visual impairment adversely affects educational performance in the classroom or learning environment was gathered.

Explain or reference data used to support findings: _____

Letter to Ophthalmologist or Optometrist

Date: _____

Dear Ophthalmologist or Optometrist:

The State of Tennessee, Department of Education, is making every effort to identify and provide special education services to students across Tennessee who have visual impairments which affect their ability to perform efficiently in the general education classroom. According to the Tennessee Department of Education Administrative Policies and Procedures, a student must have a visual impairment and one of the following characteristics to be eligible to receive special services, which would allow a licensed teacher of students with visual impairments to work with him/her:

1. Visual acuity in the better eye or both eyes with best possible correction:
 - a) Legal blindness—20/200 or less at distance and/or near
 - b) Low vision—20/50 or less at distance and/or near
2. Visual field restriction with both eyes:
 - a) Legal blindness—remaining visual field of 20 degrees or less
 - b) Low vision—remaining visual field of 60 degrees or less;
3. Medical and educational documentation of progressive loss of vision, which may in the future, affect the student's ability to learn visually, or
4. Other visual impairment, not perceptual in nature, resulting from a medically documented condition.

A complete eye report is required in order to document any or all visual problems which might identify the child as having a visual impairment. Please return the Eye Report form to the address provided below. Thank you for your assistance with this request.

Sincerely,

Send Report to:

(Name)

(Position)

Telephone _____

EYE REPORT FOR CHILDREN WITH VISUAL PROBLEMS

NAME OF STUDENT: _____ SEX _____ ETHNICITY _____
 (TYPE OR PRINT) (FIRST) (MIDDLE) (LAST)

ADDRESS _____ D.O.B. ____/____/____
 (No. AND STREET) (CITY OR TOWN) (COUNTY) (STATE)

GRADE _____ SCHOOL _____ SCHOOL SYSTEM _____

I. HISTORY

- A. Probable age at onset of vision impairment. Right eye (O.D.) _____ Left eye (O.S.) _____
- B. Severe ocular infections, injuries, operations, if any, with age at time of occurrence. _____
- C. Has pupil's ocular condition occurred in any blood relative(s)? _____ If so, what relationship? _____

II. MEASUREMENTS (See back of form for preferred notation for recording visual acuity and table of approximate equivalents)

A. Visual Acuity	Distant Vision			Near Vision			Prescription		
	Without Correction	With Best Correction	With Low Vision Aid	Without Correction	With Best Correction	With Low Vision Aid	Sph.	Cyl	Asia
Right Eye (O.D.)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Left Eye (O.S.)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Both Eyes (O.U.)	_____	_____	_____	_____	_____	_____	_____	_____	_____

- B. If glasses are to be worn, were safety lenses prescribed in: Plastic Tempered glass With ordinary lenses
- C. If low vision aid is prescribed, specify type and recommendation for use: _____
- D. FIELD OF VISION: Is there a limitation? Yes No If so, record results of test on chart on back of form
 What is the widest diameter (in degrees) of remaining visual field? O.D. _____ O.S. _____
- E. Is there impaired color perception? Yes No If so, for what color(s)? _____

III. CAUSE OF BLINDNESS OR VISION IMPAIRMENT

- A. Present ocular condition(s) responsible for vision impairment. (If more than one, specify all but underline the one which probably first caused severe vision impairment.)
 O.D. _____
 O.S. _____
- B. Preceding ocular condition, if any, which preceded present condition, or the underlined condition, specified in A.
 O.D. _____
 O.S. _____
- C. Etiology (underlying cause) of ocular condition primarily responsible for vision impairment, (e.g., specific disease, injury, poisoning, heredity or other prenatal influence.)
 O.D. _____
 O.S. _____

If etiology is injury or poisoning, indicate circumstance and kind of object or poison involved: _____

IV. PROGNOSIS AND RECOMMENDATIONS

- A. Is the student's vision impairment considered to be: Stable Deteriorating Capable of Improvement Uncertain
- B. What treatment is recommended, if any? _____
- C. When is reexamination recommended? _____
- D. Glasses: Not needed To be worn constantly For close work only Other (specify) _____
- E. Lighting requirements: Average Better than average Less than average
- F. Use of eyes: Unlimited Limited, as follows: _____
- G. Physical activity: Unrestricted Restricted as follows: _____

SEND EYE REPORT COPY TO:

Date of Examination _____
 Name of Examiner _____
 _____ (Print or type)
 Signature of Examiner _____ Degree _____
 Address _____
 No. and Street City State Zipcode _____
 If Clinic Case: Case Number _____
 Clinic Name _____

Preferred Visual Acuity Notations

DISTANCE VISION: Use Snellen notation with test distance of 20 feet. (Examples: 20/100, 20/60). For acuities less than 20/200, record distance at which 200 foot letter can be recognized as numerator or fraction and 200 as denominator. (Examples: 10/200, 3/200). If the 200-foot letter is not recognized at 1 foot, record abbreviations for best distant vision as follows:

- HM HAND MOVEMENTS
- PLL PERCEIVES AND LOCALIZES LIGHT IN ONE OR MORE QUADRANTS
- LP PERCEIVES BUT DOES NOT LOCALIZE LIGHT
- No LP LO LIGHT PERCEPTION

NEAR VISION: Use standard A.M.A. notation and specify best distance at which pupil can read. (Example: 14 70 at 5 in.)

TABLE OF APPROXIMATE EQUIVALENT VISUAL ACUITY NOTATIONS

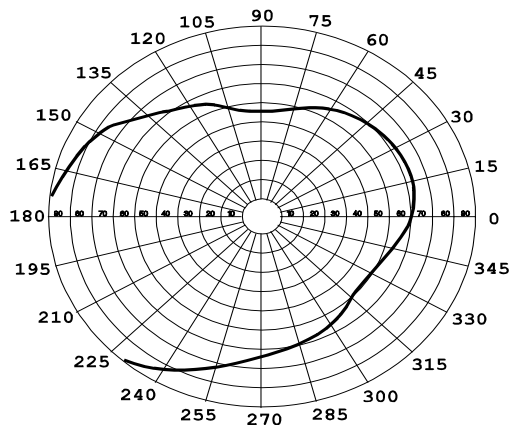
These notations serve only as an indication of the approximate relationship between recording of distant and near vision and point type sizes. The teacher will find in practice that the pupil's reading performance may vary considerably from the equivalents shown.

Distant Snellen	Near			% Central Visual Efficiency for Near	Point	Usual Type Size
	A.M.A.	Jaeger	Metric			
20/20 (ft.)	14./14. (in.)	1	0.37(M.)	100	3	Mail order catalogue
20/30	14'/21	2	0.50	95	5	Want ads
20/40	14/28	4	0.75	90	6	Telephone directory
20/50	14/35	6	0.87	50	8	Newspaper directory
20/60	14/42	8	1.00	40	9	Adult text books
20/80	14/56	10	1.50	20	12	Children's books 9-12 years
20/100	14/70	11	1.75	15	14	Children's books 8-9 years
20/120	14/84	12	2.00	10	18	
20/200	14/140	17	3.50	2	24	Large type text
12.5/200	14/224	19	6.00	1.5		
8/200	14/336	20	8.00	1.0		
5/200	14/560					
3/200	14/900					

FIELD OF VISION Record results on chart below

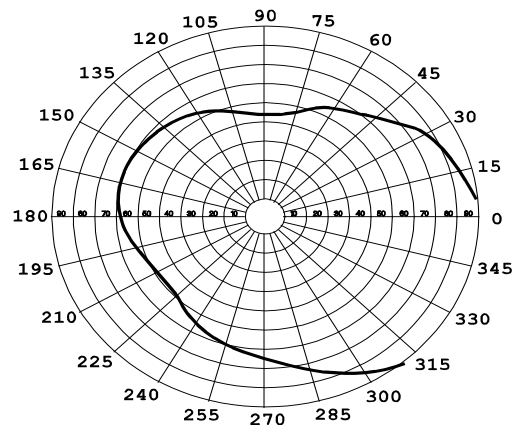
Type of test used _____ Illumination in ft. candles _____

LEFT EYE



Test Object: Color (s) _____ Size (s) _____
Distance (s) _____

RIGHT EYE



Test Object: Color (s) _____ Size (s) _____
Distance (s) _____

APPENDIX C

RESOURCES

TENNESSEE AGENCIES PROVIDING TRAINING FOR VISION SCREENING
(List is not comprehensive)

AMERICAN ACTION FUND FOR BLIND CHILDREN AND ADULTS/ AMERICAN BROTHERHOOD FOR THE BLIND

1800 Johnson Street
Baltimore, MD 21230
Tel: (410) 659-9315
Fax: (410) 685-5653
Web: www.NFB.org

Braille reading materials and Braille calendars.

AMERICAN COUNCIL OF THE BLIND

1155 15th Street, NW, Suite 1004
Washington, DC 20005
Tel: (202) 467-5081 or 1-800-424-8666
State of TN Dept. Tel: (615) 262-4938
Web: www.acb.org

Membership organization that strives to better the lives of visually impaired students and adults through advocacy, government affairs, annual scholarship program, etc.

AMERICAN FOUNDATION FOR THE BLIND (AFB)

11 Penn Plaza
Suite 300
New York, NY 10001
212-502-7600 or 1-800-232-5463
Web: afb.org.

Provides for materials, resources and information for individuals seeking assistance in serving persons with visual impairments.

AMERICAN PRINTING HOUSE FOR THE BLIND (APH)

P.O. Box 6085
Dept. 0086
Louisville, KY 80206
1-800-223-1839
Web: www.aph.org

Provides Braille, large print and educational materials for school-age students with visual impairments

AMERICA'S JOB LINE NETWORK

Tel: (410) 767-2626
Web: www.blind.net/bons0003.htm

Employment information for blind persons.

ASSOCIATION FOR EDUCATION AND REHABILITATION OF THE BLIND AND VISUALLY IMPAIRED (AER)

4600 Duke Street
Suite 430
Alexandria, VA 22304
703-823-9695

Web: www.aernet@laser.net

Professional organization of educators and rehabilitation specialists serving children and adults with visual impairments (conferences, workshops, publications and teacher certifications.)

BRAILLE INSTITUTE

741 North Vermont Ave.
Los Angeles, CA 90029
Tel: 1-800-272-4553
Fax: (323) 663-0240

Web: www.brailleinstitute.org

Braille periodicals and links, magazines, etc.

CAMP INDIAN CREEK – CHRISTIAN RECORD BRAILLE FOUNDATION

444 South 52nd Street
Lincoln, NE 68516
Tel: (402) 488-0981
Fax: (402) 488-7582

Camp for legally blind persons age nine and up, usually held for one week in the summer

CHALLENGE ASPEN

P.O. Box M
Aspen, CO 81612
Tel: (970) 923-0578
Fax: (970) 923-7338

Web: www.challengeaspen.com

Winter sports camp for disabled children and adults.

CITIZENS WITH LOW VISION INTERNATIONAL

2879 East Alden Place
Anaheim, CA 92806
Tel: (714) 630-8098 or 1-800-733-2258

Web: <http://www.tbaynet.com/cclvi>

DISABILITY DETERMINATION SERVICES (DDS)

P.O. Box 775
Nashville, TN 37219
Tel: (615) 313-5465 or 1-8000-342-1117
Web: www.state.tn.us/humanserv/programs.htm

Make disability determinations for the Social Security Administration for Tennesseans applying for Disability Insurance Benefits (DIB) and Supplemental Security Benefits (SSI) through the Social Security Program.

EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

Tel: 1-800-669-3362
Web: www.eeoc.gov/

Information and assistance with employee discrimination and ADA

THE FOUNDATION FIGHTING BLINDNESS

11435 Cran Hill Drive
Owensmill, MD 21177
Tel: 1-888-394-8937
Web: www.blindness.org/htm/about/

Fund research for retinal degenerative diseases.

FREEDOM SCIENTIFIC

11800 31ST Court North
St. Petersburg, FL 33716
Tel: 1-800-444-4433
Fax: (727) 803-8001
Web: www.FreedomScientific.com

Product information, note takers, Braille display and embossers

GOODKIN BORDER & ASSOCIATES

1862 Veterans Memorial Hwy.
Austell GA 30168
Tel: (770) 944-8226 / 1-800-759-6275
Fax: (770) 944-0254
Knoxville (865) 577-3008
Nashville (blindness) (615) 264-3420 (low vision) (615) 822-4069
Web: www.gbacorp.com

Products and consultation for people with low vision, blindness, and learning disorders

THE HADLEY SCHOOL FOR THE BLIND

700 Elm Street
Winnetka, IL 60098-0299
Tel: 1-800-323-4238
Fax: 1-847-446-8111
Web: www.hadley/school.org

Provides distance learning classes for visually challenged students 14 years old and above and the parents of younger children, infants and up, free of charge. Also provides adult continuing education classes.

HEALTH RESOURCE CENTER

American Counsel on Education
1 Dupont Circle NW Suite 800
Washington, DC 20036
Tel: 1-800-544-3284

Provides higher education information.

INDEPENDENT LIVING AIDS

200 Robbins Lane
Jerico, NY 11753
Tel: 1-800-537-2118
Fax: (516) 937-3906
Web: www.independentliving.com
E-mail: can-do@independentliving.com

Market source for a variety of independent living aids.

JOB ACCOMMODATIONS NETWORK

1-800-526-7234
Web: www.janweb.wru.edu

International toll-free consulting service that provides information about job accommodations and the employability of people with disabilities. JAN also provides information regarding the Americans with Disabilities Act (ADA).

LIGHTHOUSE INTERNATIONAL

111E 59th Street
New York, NY 10022
Tel: 1-8000-829-0500
Web: www.lighthouse.org
E-mail: Info@lighthouse.org

Produces publications and is a clearinghouse for visually handicapped persons.

LIONS EYE CENTER @ VANDERBILT UNIVERSITY (TN EYE CENTER)

11211 21ST Ave.
Nashville, TN 37212
Tel: (615) 936-1034
Fax: (615) 936-2118

Provides vision services to children. Financially needy children may be referred for TennCare and their community Lions club for sponsorship of services.

LOUIS DATABASE

Web: <http://www.aph.org/louis.htm>

MISSISSIPPI STATE UNIVERSITY REHABILITATION RESEARCH AND TRAINING CENTER ON BLINDNESS AND LOW VISION

P.O. Box 6189
Mississippi State, MS 39762
Tel: (662) 325-2694, (662) 325-2001 or 1-800-675-7782
Web: www.blind.msstate.edu/irr/contact.html
E-mail: RRTC@Ra.msstate.edu

Information and referral source online accessible base of resources.

NASHVILLE TALKING LIBRARY

505 Heritage Drive
Madison, TN 37115
Tel: (615) 862-5874

Closed circuit radio transmission, newspaper & book articles, free receiver.

NATIONAL AGENDA FOR EDUCATION OF CHILDREN AND YOUTHS WITH VISUAL IMPAIRMENTS, INCLUDING THOSE WITH MULTIPLE DISABILITIES

Web: www.tsbvi.edu

Advocacy group with purpose of promoting educational access for students with visual impairments including materials, teacher licensure, early identification and parent involvement and training.

NATIONAL ASSOCIATION OF PARENTS OF CHILDREN WITH VISUAL IMPAIRMENTS (NAPVI)

P.O. Box 317
Watertown, MA 002272-0317
800-562-6265
Fax 615-972-7444.

NAPVI is an organization for parents and agencies to provide support to parents and families of children with visual impairments.

NATIONAL ASSOCIATION FOR VISUAL HANDICAPPED (NAVH)]

22 West 21st Street
New York, NY 10010
Tel: (212) 889-3141
Fax: (212) 727-2931
Email: Staff@NAVH.org

NAVH works with millions of people worldwide dealing with difficulties of vision impairment.

NATIONAL BRAILLE PRESS

88 St. Stephens Street
Boston, MA 02115
Tel: (617) 266-6160
Fax: (617) 437-0456
Web: www.nbp.org

Braille books, free down loads, and links.

NATIONAL FEDERATION OF THE BLIND

1800 Johnson St.
Baltimore, MD 21230
Tel: (410) 659-9314
Web: NFB@NFB.org

Membership organization providing information and advocacy.

NATIONAL LIBRARY SERVICE

1291 Taylor Street, N.W.
Washington, DC 20542
Tel: (202) 707-5100
Web: www.lcweb.loc.gov/ms/reference/assist

Reference Circular "Assistive Services for Reading"

NICHCY

P.O. Box 1492
Washington, DC 20013
Tel: (202) 884-8441
Web: NICHEY@aed.org

National Information Center for Children and Youth with Disabilities. Personal responses to specific questions, publications, referrals and information searches.

NOAH

National Organization for Albinism and Hypopigmentation
P.O. Box 959
East Hampstead, NH 03826-0959
Tel: (603) 887-2310 or 1-800-473-2310
Fax: (603) 887-6049
Web: www.albinism.org

Volunteer organization for persons and families involved with the condition of albinism.

OUTREACH PROGRAM

Vanderbilt Pediatric Ophthalmology Department
Tennessee Lions Eye Center
1211 21st Avenue South, 110B-Medical Arts Building
Nashville, TN 37212
Tel: (615) 936-2726

Free photoscreening for children 1 through 5 years (12 months to 72 months) are provided for Daycare Centers, Head Start, Church, Mother's Day Out programs, Business, Home Day Care, etc. Screening requires parental consent. Screening can be scheduled upon request by phone. Open screenings can be scheduled upon request with very strict guidelines (Prevent Blindness Tennessee Vision Resource Guide, 1998).

PREVENT BLINDNESS TENNESSEE

95 White Bridge Road
Suite 513
Nashville, TN 37205

Prevent Blindness Tennessee trains volunteers to conduct vision screening through the state. Will also conduct vision screenings for systems without other personnel or agencies to do so.

PROJECT P.A.V.E.

P.O. Box 328
Peabody College, Vanderbilt University
Nashville, TN 37203
Tel: (615) 322-2249, (615) 343-8783, or (615) 322-2249

Provides low vision evaluations, optical aids, and conferences at no charge.

PROVIDING ACCESS TO THE VISUAL ENVIRONMENT (PROJECT PAVE)

Peabody College Box 40
230 Appleton Place
Vanderbilt University
Nashville, TN 37203-5701
<http://www.vanderbilt.edu/kennedy>
Phone: (615) 322-8240
TDD: (615) 343-3330
FAX: (615) 322-8236

Provides low vision assessments, devices and training to school-age children with visual impairments in Tennessee. Provides low vision assessments, devices and training for school-age children with visual impairments in Tennessee.

RECORDING FOR THE BLIND AND DYSLEXIC

20 Roszel Road
Princeton, NJ 08540
Tex: 1-800-221-4792
Web: www.rfbid.org

Textbooks, reference and professional materials for persons with print disabilities

RP INTERNATIONAL

P.O. Box 900
Woodland Hills, CA 91365
Tel: (818) 992-0500
Fax: (818) 992-3265

Research retinitis pigmentosa service

SERVICES FOR THE BLIND & VISUALLY IMPAIRED

Citizens Plaza Bldg.
400 Deadrick Street, 11th Floor
Nashville, TN 37248-6200
Tel: 1-800-628-7818

Provides rehabilitation services to the blind or visually impaired to promote employment, independent living, and adjustment to blindness. This program also provides some emergency medical treatment to prevent blindness to those who can not afford such treatment.

SKILCRAFT (National Industries for the Blind)

1901 N. Beauregard St. Suite 200
Alexandria, VA 22311-1727
Tel: (703) 998-0770
Fax: (703) 998-8368
Web: www.nib.org

Services and information for persons with blindness.

SPALDING MAGNIFIERS

13150 FM529 Suite 118
Houston, TX 77041
Tel: 1-888-551-0054
Fax: (713) 466-4615

Telesensory equipment

SUCCESS BY SIX

250 Venture Circle
P.O. Box 28040
Nashville, TN 37228
615-780-2538

Success by Six provides free photoscreening and chart screening for children 6 months through 5 years usually in community based settings.

TAPV

939 Statesville Road
Watertown, TN 37184
Tel: (615) 237-4556
Fax: (615) 237-4556

TECHNOLOGY

Web: www.enablemart

A website that offers adaptive technology for challenged persons.

TENNCARE

729 Church Street
Nashville, TN 37203

Any child up to age 21 who is covered by TennCare can receive a vision screening from his or her primary care provider as part of the 'well child' routine check-up. Known as EPSDT, these are "early and periodic screening, diagnostic and treatment" services. These check-ups are free and should be provided on a regular schedule. A child can have a screening anytime a problem is suspected even if it is not time for the regularly scheduled screening (Prevent Blindness Tennessee Vision Resource Guide, 1998).

TENNESSEE DEPARTMENT OF EDUCATION RESOURCE CENTER FOR THE VISUALLY IMPAIRED (TSBCVI)

115 Stewart's Ferry Pike
Nashville, TN 37214
615-231-7340
Fax: 615-231-7307
Web: www.tsb.k12tn.net

TSBCVI provides textbooks, tangible aids, equipment, braille and large print books.

TENNESSEE DEPARTMENT OF HEALTH (TDH)

Maternal and Child Health

425 5th Avenue North
Nashville, TN 37247-4750
615-741-8530

Local Health Departments may conduct vision screenings as part of the EPSDT exam. Contact local Health Departments to see if they provide this service (Prevent Blindness Tennessee Vision Resource Guide, 1998).

TENNESSEE EARLY INTERVENTION SYSTEM (TEIS)

P.O. Box 5095
Tennessee Technological University
Cookeville, TN 38505
888-212-3162

TEIS serves families of children birth to three years of age.

TENNESSEE INFANT PARENT SERVICES (TIPS)

2725 Island Home Blvd.
Knoxville, TN 37920
Business Hours: M-F, 8am-4:30pm
865-579-3099
Fax: 865-579-5033
Web: www.kornet.org/lchic/organizations/TIPS.html

TIPS services provide statewide home-based programs for the families of preschoolers.

TENNESSEE INSTRUCTIONAL RESOURCE CENTER FOR THE VISUALLY IMPAIRED (TRCVI)

115 Stewarts Ferry Pike
Nashville, TN 37214
615-231-7406

TRCVI provides instructional resources for students who are visually impaired.

TENNESSEE LIBRARY FOR THE BLIND & PHYSICALLY HANDICAPPED

403 7TH Ave. North
Nashville, TN 37243-0313
Tel: 1-800-342-3308
Web: www.state.tn.us/sos/statelib/LBPH/lbph

Provides recorded, Braille, and large print books for persons unable to read print because of physical disability. Maintains a library of descriptive videos.

TENNESSEE SCHOOL FOR THE BLIND

115 Stewart's Ferry Pike
Nashville, TN 37214
615-231-7340
Fax: 615-231-7307
Web: www.tsb.k12tn.net

TSB Provides comprehensive instruction for students with visual impairments.

TENNESSEE VOCATIONAL TRAINING CENTERS (TVTC)

460 9TH Avenue
Smyrna, TN 37167
Tel: (615) 741-4921
Web: www.state.tn.us/humanserv/trc-tvtc.htm

Network of 18 facilities throughout the state that provides vocational evaluation, work adjustment and job placement in local communities.

TENNESSEE REHABILITATION CENTER

Tel: (615) 459-6811 ext. 246

The state's only residential vocational rehabilitation training facility, which offers vocational evaluation, training, independent living skill training, job development and placement.

TEXAS SCHOOL FOR THE BLIND AND VISUALLY IMPAIRED (TSBVI)

Austin, Texas
<http://www.tsbvi.edu/>

U.S. DEPT. OF LABOR OFFICE & DISABILITIES

200 Constitution Avenue, Suite 1303
Washington, DC 20210
Tel: (202) 693-7880

Promotes employment of persons with disabilities

VISION ADVANTAGE, INC.
42-200 State St. Suite A-10
Palm Desert, CA 92211
Tel: (760) 862-9040
Fax: (760) 862-9994
Web: www.visionadvantage.net

Reading devices

APPENDIX D

REFERENCES

REFERENCES

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Tennessee Curriculum Standards for Content Areas:

<http://www.state.tn.us/education/ci/index.html>

Tennessee English/Language Arts Standards: K-3 Assessments:

<http://www.state.tn.us/education/ci/cistandards2001/la/cik3readassess.htm>

Tennessee State Department of Education/Division of Special Education:

<http://www.tennessee.gov/education/speced/>



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