THE OHIO CENTER FOR

DEAFBLIND EDUCATION

A School Psychologist's Guide to Deafblindness:

Identifying & Supporting Students with Combined Hearing-Vision Loss

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Dr. Wolford and her husband, Eric Wolford, established the No Stone Unturned Foundation. Their foundation is a 501(C)(3) nonprofit organization dedicated to the support and research of children with health issues and/or disabilities and their families. The Wolfords were inspired by their son Stone who was diagnosed at two years of age with Cardio-Facio-Cutaneous Syndrome (CFC Syndrome) a rare genetic syndrome. Currently she is a co-founder and serves on the executive board of the No Stone Unturned Therapeutic Learning Center and Katie's Way Center in Manhattan, Kansas.

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About OCDBE

The Ohio Center for Deafblind Education (OCDBE) is a federally funded technical assistance and dissemination project designed to provide technical assistance, training and professional development, and consultation at no cost to improve results for children, birth through 21 years, with combined vision and hearing loss. OCDBE is also responsible for conducting an annual census of children with combined vision-hearing loss in Ohio. For more than 30 years, OCDBE has worked with local districts and their schools, state agency personnel responsible for IDEA Part B and Part C implementation, state and national parent and professional association representatives, and a variety of other partners committed to improving results for all children. For more information, contact OCDBE at 614.785.1163, or visit the OCDBE website at www.ohiodeafblind.com.

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Overview

Sensory input is vital to understanding and interacting with the environment, and the two senses we most depend on are *vision* and *hearing*. Disruption of either of these senses creates significant disadvantages for learning, communicating, working, and even playing. Fortunately, research not only informs us about what we could otherwise only imagine—the challenges that arise for those who have deficits in *both* vision and hearing—it has also led to improved methods and resources to help professionals, parents, and others meet the challenge of individualizing education for students whose learning is affected by deafblindness.

This guide supports the work of school psychologists by presenting research-based knowledge that informs effective assessment and educational planning for students with deafblindness. It briefly tells what deafblindness is, how many students it affects, how deafblindness impacts students' learning, and how you, as a school psychologist, can help students with combined hearing-vision loss participate fully in their education.

What Is Deafblindness?

The word "deafblindness" may suggest total inability to see or hear, but that is not usually correct. However, deafblindness, as defined in IDEA, refers to combined vision and hearing loss causing "such severe communication and other developmental and educational needs that the student cannot be accommodated in special education programs solely for students with deafness or students with blindness or in special education programs solely for students with multiple disabilities." State definitions are similar, as you can see from Ohio's definition:

> **Deafblindness** means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

Deafblindness and multiple disabilities are different types of disabilities. Ohio's special education code defining multiple

disabilities tells what kinds of concomitant disabilities are considered to constitute multiple disabilities and then it explicitly states that the category of multiple disabilities "does not include deafblindness."

Many students with dual sensory loss are not properly served in special education because their hearing and vision needs are masked by the severity of their loss or by concomitant disabilities. Students may be misidentified and served under the special education category of multiple disabilities or the category of vision impairments or of hearing impairments when their primary disabling condition is actually deafblindness. Such students are unlikely to receive appropriate interventions and services. The interaction of vision and hearing problems creates effects beyond those of multiple disabilities or with vision problems or hearing problems alone. Developing an assessment profile and program of intervention for combined hearing-vision loss presents challenges that can be met only through an understanding of what deafblindness is, its impact on students' learning, and its implications for education.

As a school psychologist responsible for helping identify students with deafblindness, you should be familiar with federal and state definitions of vision impairments and of hearing impairments. These two definitions contribute to the definition of deafblindness. IDEA's and Ohio's legislative definitions of visual impairment are the same:

> **Visual impairment including blindness** means an impairment in vision that, even with correction, adversely affects a student's educational performance. Visual impairment for any child means:
>
> (a) A visual impairment, not primarily perceptual in nature, resulting in a measured visual acuity of 20/70 or poorer in the better eye with correction; or
>
> (b) A physical eye condition that affects visual functioning to the extent that special education placement, materials and/or services are required in an educational setting.

"Hearing impairment" and "deafness" are defined separately under both IDEA and Ohio legislation. Under Ohio law:

> **Hearing impairment** is "an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness in this rule."
>
> ***Deafness*** is defined under Ohio law as "a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification that adversely affects a child's educational performance." Under both federal and state law, deafness is conceived as a condition that prevents an individual from receiving sound in most of its forms. In contrast, a student with a hearing impairment can generally respond to auditory stimuli, including speech.

Considerations for eligibility for services for hearing impairments or deafness include a history of hearing loss that was more severe in the student's developmental years than currently or a history of medical problems that have caused fluctuating hearing loss.

A diagnosis from each of the two categories below is needed to be considered *deafblind*:

Vision Loss

- Low vision (visual acuity of 20/70 – 20/200)
- Legally blind (visual acuity of 20/200 or worse, or a field restriction of 20 degrees)
- Light perception only
- Totally blind
- Cortical Visual Impairment (CVI)
- Diagnosed progressive loss
- Functional vision loss

Hearing Loss

- Mild (26-40 dB loss)
- Moderate (41-55 dB loss)
- Moderately severe (56-70 dB loss)
- Severe (71-90 dB loss)
- Profound (90+ dB loss)
- Diagnosed progressive loss
- Central Auditory Processing Disorder (CAPD)
- Auditory Neuropathy
- Functional Hearing Loss

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Criteria to help determine students' eligibility for special education and related services as a student with deafblindness in Ohio are shown to the left.

Fortunately, most students with deafblindness have some usable vision and/or hearing. The vast variance in range of sensory impairments, including deafblindness, allows for many students to have enough vision to maneuver familiar environments, recognize people and objects, see sign language at a close distance, and see enlarged print or pictures. Likewise many students have enough hearing to recognize sounds, understand some speech, and develop communicable speech. The world experience for students who are *profoundly* hearing impaired and *totally* blind, however, is almost wholly dependent on tactile, kinesthetic, and olfactory senses. Such students are essentially alone if not experiencing touch. Their concepts about the world around them depend almost completely on what or with whom they have had physical contact. Isolation is a major threat to their cognitive and social development.

What Causes Deafblindness?

The cause of a student's deafblindness is an important consideration in evaluation and intervention as the cause determines the nature of loss and often the severity and age of onset as well. Individuals who experience deafblindness are sometimes categorized according to four basic groups: Those who experience both vision and hearing impairments from birth or early childhood; those who have vision impairment or blindness from birth or early childhood and then lose hearing later; those who have hearing impairments or deafness at birth or early childhood and then lose vision later; or those who develop vision and hearing loss later in life. Which group a student belongs to depends largely on the conditions that caused the loss.

The largest group of causes of deafblindness includes chromosomal syndromes and congenital disorders. CHARGE syndrome is the leading cause of deafblindness at birth. Usher, a syndrome in which hearing impairment is usually present at birth, results in visual impairment later, usually by the teenage years. Other congenital causes of deafblindness include Down syndrome, and Trisomy 13. Exposure to drugs or alcohol; viruses, such as herpes and rubella; or asphyxia can result in deafblindness from birth. Stroke, asphyxia, meningitis, head injury, or trauma can result in deafblindness at any age.

Most Common Conditions That Cause Deafblindness

(1) Hereditary/Chromosomal Syndromes and Disorders

(2) Pre-Natal/Congenital Complications

(3) Non-Genetic Acquired Deafblindness

(4) Complications of Prematurity

(5) Undiagnosed

Source: *Causes of Deafblindness*, National Center on Deaf-Blindness. (2020). Retrieved from https://www.nationaldb.org/info-center/overview/causes/

In general, having hearing or sight or both during infancy and early childhood offers a foundation of experience that can help the student learn at a rate that more closely approximates norms for his or her age group. Conversely, the earlier the loss of both senses, the greater the impact on the student's development.

This diversity of causes and developmental impacts is one reason that assessment of students with deafblindness demands specialized problem-solving on your part as a school psychologist, and on the part of other educators and caregivers. The low incidence of deafblindness and the high frequency of concomitant disabilities associated with the condition add to that demand for expertise.

How Many Children and Youth with Deafblindness Are There?

Deafblindness is a low-incidence disability, but deafblindness is often compounded by concomitant disabilities. *The 2019 Child Count of Children and Youth Who Are Deaf-Blind*, published by the National Center on Deaf-Blindness (NCDB), reports that there are 10,627 infants, children, and young adults in the United States identified as having combined hearing-vision loss, a higher number than the 9,384 reported in the 2014 Child Count. Nearly 90% of the children and youth on the National Deaf-Blind Child Count have one or more disabilities in addition to deafblindess. The Center's study also found that 42% of students with combined hearing-vision loss had four or more additional disabilities (see table below).

Conditions that Occur in Addition to Deafblindness

Condition	Infants, Children, and Young Adults (Birth – 22) with Deafblindness
Speech/Language Impairments	7864 (74%)
Cognitive Impairments	7120 (67%)
Orthopedic Physical Impairments	6376 (60%)
Complex Health Care Needs	5526 (52%)
Other Impairments	2125 (20%)
Behavioral Disorders	1063 (10%)
Total Number of Infants, Children, Youth with Deafblindness	**10,627**
Based on National Center on Deaf-Blindness (2019) report, *The 2019 National Child Count of Children and Youth Who Are Deaf-Blind*	

The implications of having a combined hearing-vision loss are many. Since deafblindness clearly impacts students' access to basic information, it is more than just a disability of hearing and vision; it is a disability of information-gathering. Lack of sensory information affects virtually every aspect of life,

including movement, communication, behavior, and even motivation to learn. Students who experience deafblindness need special education and related services. Today, those are more likely to be provided in a public school setting than at any time in the past.

Learner Characteristics Associated with Deafblindness

The 2019 Child Count of Children and Youth Who are Deaf-Blind, published by the National Center on Deaf-Blindness (NCDB), reports that there are 10,627 infants, children, and young adults in the United States identified as having combined hearing-vision loss, a higher number than the 9,384 reported in the 2014 Child Count. Nearly 90% of the children and youth on the National Deaf-Blind Child Count have one or more disabilities in addition to deafblindness. The Center's study also found that 42% of students with combined hearing vision loss had four or more additional disabilities (see table below).

Clearly, school psychologists, along with other educational specialists, teachers, and administrators, play an important role in the educational progress of students with deafblindness. This responsibility requires understanding the impact of combined vision and hearing loss and the implications for the student's education.

The varying nature and degree of loss and the vast differences between individual students make it impossible to generate characteristics that apply to all students in this population. According to the National Deaf-Blind Child Count data, collected annually since 1985, students with deafblindness represent one of the lowest incidence disabilities and yet are the most heterogeneous group of learners receiving early intervention and special education services.

Learner Characteristics and Implications for Intervention

Developmental Area	Characteristics	Implications for Intervention
Movement	• Reluctant to move, especially in an unfamiliar environment • Slower, less coordinated, and more easily fatigued than age peers • Delayed development of motor skills, such as walking, running, using crayons, pencils, etc. • Stereotypic movements, such as rocking	• Adaptive physical education • Orientation and mobility instruction • Occupational therapy • Frequent breaks and "down time" • Applied behavior analysis to "normalize" movements • Accessible environment (e.g., uncluttered, accessible labels and signs)
Communication	• Lack basic concepts for communication (e.g., concept of object permanence) • Limited vocabulary • Delayed speech and language • Idiosyncratic grammar	• Signing • Braille • Assistive technology (e.g., communication boards and FM systems) • Speech/language therapy • Extended time to respond
Academic and Social Behavior	• Lack of awareness of consequences of behavior • Underachievement • Isolation	• Applied behavior analysis to shape academic and social behaviors • Classroom behavior analysis to encourage interactions between peers and student with deafblindness • Universal Design for Learning (UDL)
Motivation	• Less curiosity and motivation to learn • Less motivation to form relationships with peers and teachers	• Enriched sensory input in multisensory modes (e.g., tactile strategies) • Applied behavior analysis to shape successful performance of academic tasks • UDL

One-on-one instruction **is implicit in addressing the impact of deafblindness.** One-on-one instruction to supplement or replace group instruction is crucial, as students with deafblindness have so little opportunity to learn incidentally—for example by hearing and seeing other students' responses to questions and assignments. **Assistive technology** also plays an essential role in the education of students with deafblindness. Assistive technology, including low vision devices, speech synthesizers, assistive listening devices, and alternative communication devices, offers accessibility to the same curriculum as students without disabilities. The instructional support of **interpreters who sign, transcribers,** and **paraprofessional aides** is needed by many students with deafblindness. At the same time, simple **changes in the environment**, such as changes in lighting, positioning, and background noise, are important considerations for both intervention and assessment.

Issues in Assessment of Students with Deafblindness

Students with deafblindness referred for evaluation may not be thought to have vision and hearing deficits. Other concerns about the student may have led to the referral. Your role includes being sensitive to the possibility of sensory impairments even when they have not been given as a reason for referral. For example, it is sometimes surprisingly difficult to know whether a young student whose language is impaired can hear. Students who appear to be noncompliant may, in reality, not perceive the stimuli associated with the test or may perceive them in such a dim or distorted form that they do not know how to respond. It is important to be aware of indicators of possible vision or hearing loss and to make the team aware of such indicators so that needed referral for evaluation of hearing and/or vision can be made.

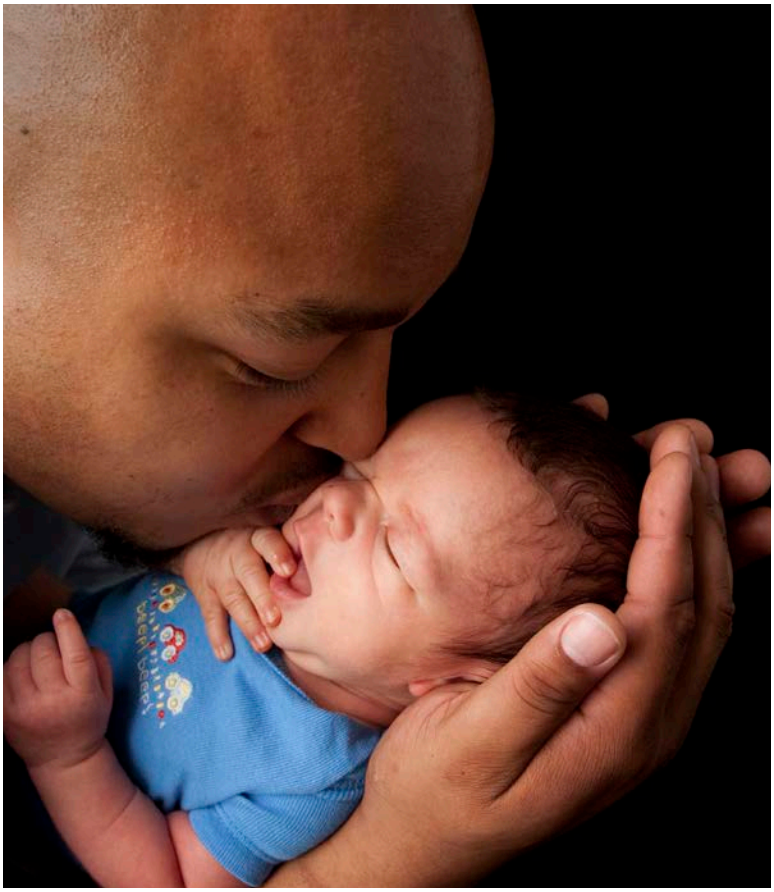
The Ohio Center for Deafblind Education (OCDBE) offers a list of behaviors that may indicate a need for medical examination (https://ohiodeafblind.com/hearing-vistion-algor.html). Some of those indicators are:

- Does not look toward or attend to voices, sounds
- Difficulty localizing sounds
- Articulation problems that are not improving

OCDBE also offers a list of behaviors suggesting a need for an ophthalmological referral (https://ohio-deafblind.com/hearing-vistion-algor.html). Some of those indicators are:

- Does not look at faces, give eye contact
- Holds books or objects close to eyes
- Stops and steps/crawls over changes in floor texture or color

The OCDBE Decision Tree, developed by Susan Wiley, M.D., which includes these lists, provides an excellent guide for assessment planning (See Appendix A).



A collaborative, multidisciplinary approach to the assessment of students with deafblindness is essential. Common themes in meeting the challenge of assessing students with deafblindness are collaboration, a multidisciplinary team approach, parental input, and specialized expertise. In addition to you, as the school psychologist, the assessment team typically consists of the student's parents or caregiver; the student's teacher(s); the student (if he or she is of appropriate developmental age); a teacher of students with vision impairments; a teacher of students with hearing impairments; and other specialists, such as a speech-language pathologist, audiologist, and/or orientation and mobility specialist. Team members work together identifying informational needs; collecting information about the student, observing and testing the student; and discussing results of observations, tests, and records in order to identify the student's strengths and weaknesses and their implications for interventions and services.

The U.S. Department of Education's assessment planning checklist offers useful ideas for the assessment team (http://www.ohsu.edu/xd/research/centers-institutes/institute-on-development-and-disability/design-to-learn/completed-projects/upload/Assessment-Planning-Checklist.pdf).

The school psychologist's expertise in administering and interpreting tests plays a vital role in the assessment process. Also important is your expertise in cognition, academic aptitude, social/emotional functioning, and child development. Generally, school psychologists assess students to determine their current cognitive aptitude and academic achievement, and, in some cases, to determine their social and emotional functioning, communication skills, and sensorimotor skills. Measures of social and adaptive abilities in students with deafblindness focus on self-care, play, orientation and mobility, routines, and chores. In evaluating older students, vocational aptitude scales are used in assessment for transition planning for postsecondary training or vocation. The selection, administration, and interpretation of standardized tests in these areas are likely to constitute a major element of your role as a member of the multidisciplinary team.

Standardized tests lack adequate norms for students with vision and hearing disabilities. Used wisely and in consideration of each test's limitations, however, carefully selected standardized tests may provide valuable information about the student's development. For many students with deafblindness, standardized tests legitimately constitute one facet of a multidisciplinary assessment that combines information from a number of sources. In order to choose the most valid tests for a student, you need to know much more than the student's age, grade level, and reasons for referral. Usually, the best sources for helpful information to guide your selection and administration of tests are the student's parent(s) and teacher(s).

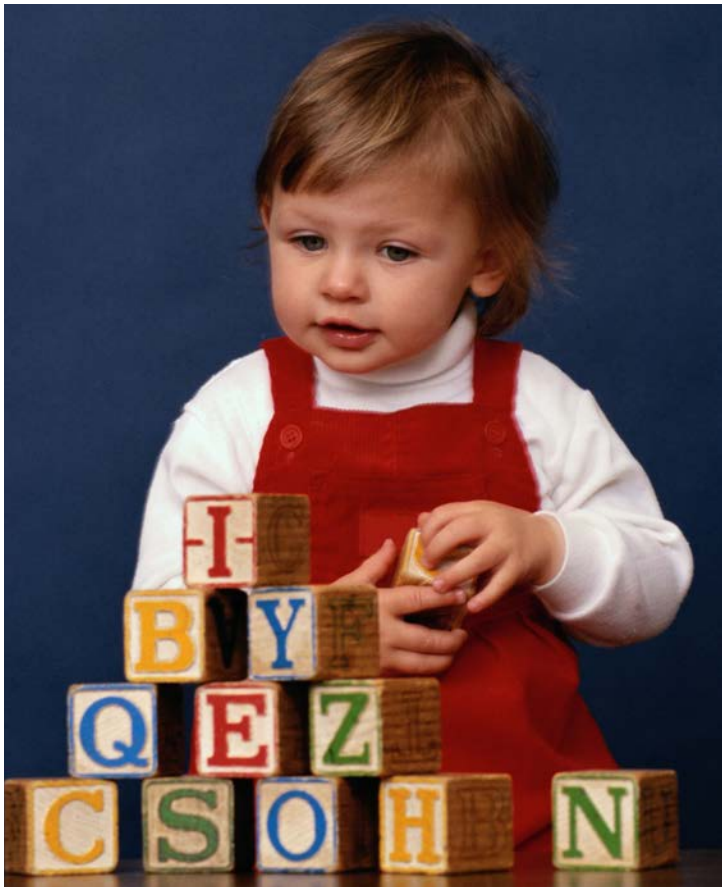
Identifying means by which students with deafblindness can communicate is essential. Unearthing communication skills is a paramount concern in gathering the information needed to design an individualized education program (IEP). Among many issues for the assessment team to consider is how to identify technology needs for communication. It is important to use what is available to the student in conducting assessment in order to provide every possible opportunity for the student's optimal response to test questions and tasks.

Background information from parents and teachers can be collected in various ways, formally or informally. Parent inventories and checklists, such as "HomeTalk – A Family Assessment of Children who are Deafblind," The National Center for Deaf-Blindness (NCDB) practice guideline offers appropriate and useful strategies for multi-disciplinary teams to plan for the assessment of students with deafblindness. https://documents.nationaldb.org/AppropriateAssessmentStrategies_a.pdf

Some standardized tests have been recommended for (cautious) use with students with vision and/or hearing impairments. Keep in mind that most, if not all, of even the recommended tests for students with vision and/or hearing impairments have inadequate norms for the population of students with vision or hearing loss, much less with a combined loss. In some cases, the norms are out-dated; in some the norms are unrepresentative; and in other cases, the norms are both out-dated and unrepresentative. Expertise in the meaning of test statistics and in the relative usefulness of various types of scores, as well as familiarity with commonly used standardized tests, is absolutely necessary for the proper interpretation of a student's test performance in consideration of such norming problems. See Appendix B for a list of a few norm-referenced tests that have been recommended as appropriate for expert and carefully considered use with some students with vision and/or hearing loss.

Effective use of standardized tests with students with deafblindness often requires administering the tests in a nonstandard manner as well as recognizing the implications for test results that such administration entails. An IQ score or cognitive aptitude score based on standard administration of a norm-referenced test

without adequate norms for students with deaf-blindness provides an erroneous profile of the student's ability to learn. On the other hand, changes in test administration that are tailored to the individual student cannot yield valid standard scores; *however*, they can yield valuable, trustworthy information about the student's intelligence and aptitude. Changes in testing procedures for students with disabilities are commonly discussed in terms of accommodations, modifications, and dynamic assessment.



- **Accommodations** are changes to test materials, test administration, or test setting in order to prevent the student's disability from interfering with the student's demonstration of the knowledge or skills being tested. Accommodations afford the student *access* to the test questions and do not change the demands on knowledge and skills that the test was designed to measure. Asking mathematics test questions orally rather than having the student with vision impairment read them is one example of an accommodation.

- **Modifications** change the knowledge and skill demands of the test. Using only the nonverbal scale of a test that generally requires a verbal and a nonverbal scale is an example of a test modification that could be used with intelligence or cognitive aptitude tests. Omitting timed questions from a test that includes both timed and untimed questions is another example of a modification as is including the timed questions, but extending time for response to them. In modifying tests, the test administrator does not ask the student to demonstrate all of the knowledge and skills typically measured by the test.

- **Dynamic assessment** adapts test administration to the individual student's responses instead of administering the test according to the directions on which the test was standardized. Dynamic assessment includes teaching a student how to respond to the test. It is highly interactive, with the test-giver adapting questioning techniques to the students' level and manner of responding. For example, to reduce the student's anxiety level or to increase motivation, the test-giver might intersperse easy questions with the test's difficult ones. The rationale behind using dynamic assessment with standardized tests is that it allows more insight into the student's learning potential than the test's standard administration allows.

Teachers and others who are specialists in the areas of concern assess academic, behavioral, linguistic, and functional domains through observation, testing, and medical records. The assessment team conducts observations across settings, elicits information from those who interact with the student on a regular basis, and gathers relevant medical or developmental findings. Information collected from team members can aid in your psychometric evaluation and vice versa. For example, a teacher might discover from observation that the student you will evaluate needs to be positioned off center from the task in order to use functional vision. Without this team member's observation, you would probably position the student in front of the test as you would most students, thus depriving this particular student of the use of functional vision. Collaboration of this sort—between team members like you, experienced in norm-referenced testing, and team members who are experienced with the student or with students with similar disabilities and who have observed the student in the home or classroom to assess functional skills and performance on academic tasks—offers the most valid assessment. Teachers and other educational specialists on the multidisciplinary team often select from developmental and criterion-referenced tests such as those listed in Appendix B.

Assessment results should be presented in statements about the student's present level of performance. A major outcome of the assessment is a clear and concise summary of the student's learning strengths and learning weaknesses or needs. If the student is eligible for special education, this summary is expressed in terms of the student's present level of performance. Statements of present level of performance reflect the findings that are most important to the student's education, as they form the basis for educational goals and objectives for the student. They commonly articulate the student's current performance in regard to communication, academics, social/emotional development, behavior, and functional life skills. They also inform discussion about such issues as the student's need to communicate with peers and teachers in their mode of communication; need for an extended school year; need to learn braille if they are blind; the need for assistive technology; and behavioral needs. If the student is 14 or older, they address needs related to transition to adult life. Here are three sample statements of present level of performance similar to ones that might appear on the IEP of a student with deafblindness:

- Based on a dynamic assessment of norm-referenced tests of receptive language, supplementing pictures with objects, Annette's receptive vocabulary is similar to that of students in fourth grade; her knowledge of other elements of receptive language, such as rules for forming plural and past tense, as measured by a sentence-imitation test, is similar to that of second-grade students at the end of the school year.

- Based on the Braille version of the Woodcock-Johnson Tests of Achievement III and curriculum-based assessment, Taylor's abilities to add, subtract, and multiply are at grade level; ability to solve word problems is comparable to that of students two grades below.

- Based on informal observation of interaction with peers in the classroom, Jeff is receptive to, or at least complies with, all invitations to participate in play or work groups; he does not initiate interactions with his peers.

Conclusion

We hope this guide for school psychologists helps you fulfill your role in the education of students with deafblindness and leads you to learn more by making use of the list of resources and bibliography below. As with assessment, effective intervention, based on the student's present level of performance, is provided collaboratively. Parents and teachers of learners with deafblindness play a critical role in implementing intervention strategies over the student's years of schooling; and the intervention team includes other members of the assessment team, including the school psychologist, in assuring the continued effectiveness of the student's education and related services. Given the wide discrepancies in the needs of students with dual sensory loss, it is outside the scope of this document to describe intervention strategies, techniques, and services in specific terms. A list of resources to support intervention is offered on the following page.

Resources to Support Effective Interventions for Students with Deafblindness

Center for Literacy and Disability Studies (https://www.med.unc.edu/ahs/clds/resources) provides resources for interventions, including information on shared reading, chart writing, partner assisted scanning, switch mounts, downloadable templates for PowerPoint ABC books, and other interventions specific to academic intervention tailored to individual needs (https://www.med.unc.edu/ahs/clds/wp-content/uploads/sites/859/2018/09/TopClassroomTools.pdf). Of assistance in exploring options for educational planning, two case studies provide insight into the process of addressing the needs of students with deafblindness (https://www.med.unc.edu/ahs/clds/resources/deaf-blind-model-classroom-resources/db-case-studies).

National Center on Deaf-Blindness (NCDB) offers many useful resources, including training modules that provide an overview for the development and provision of intervention with students who are deafblind (*https://nationaldb.org*). Among a large number of documents with information on intervention, NCDB also provides a bibliography of resources for early intervention for children with deafblindness (https://nationaldb.org/library/page/2284).

Ohio Center for Deafblind Education (OCDBE) https://ohiodeafblind.com/ offers information and resources to support and assist students with deafblindness, their parents and families, and professionals and paraprofessionals who work with the students. ***A Checklist for Early Intervention Providers*** (https://www.nationaldb.org/search/?terms=resources+for+early+intervention+bibliography&ctx=site) is provided as Appendix A of this guide. Among other resources for evaluation is the decision tree to assist in considering referral for hearing and vision examination https://ohiodeafblind.org/index.php/hearing-vision-assessments.

Project Salute (https://www.nationaldb.org/info-center/project-salute/)
offers a report, ***Tactile Learning Strategies for Children who are Deaf-Blind***, describing hand-over-hand guidance, hand-under-hand, and tactile signing, among other methods supporting communication and learning.

U.S. Office of Special Education Program's Ideas that Work offers a guide for professionals responsible for assessing and developing interventions for young students who are deafblind, the ***Assessing Communication and Learning in Young Children Who are Deafblind or Who Have Multiple Disabilities***
(*https://www.designtolearn.com/uploaded/pdf/DeafBlindAssessmentGuide.pdf*)
The contents should be helpful for families who want to become actively involved in educational planning. The *Ideas that Work* site refers to several reports in universal design for learning that could be helpful to general education teachers working with students with deafblindness, such as the report, ***Curriculum Access for Students with Low-Incidence Disabilities: The Promise of Universal Design for Learning*** (http://sde.ok.gov/sde/sites/ok.gov.sde/files/LowIncidence.pdf).

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Appendix A: *OCDBE Decision Tree*

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Decision Tree: Risk Factors and Behaviors Suggesting Possible Vision and/or Hearing Concerns in Young and School-aged Children

Concerns About a Child's Vision

Child With Risk Factor(s) for Vision Impairment:

Low birth weight (<3 pounds)
Cerebral palsy
Head trauma
Hearing loss*
Hydrocephalus/Shunt
Meningitis/Encephalitis
Congenital infections (such as CMV)
Retinopathy of Prematurity
Seizures
Syndrome associated with vision concerns

Child Has Concerning Vision Behaviors:

Discuss with family, team (including a vision specialist);

implement appropriate referrals for a comprehensive eye exam by an ophthalmologist knowledgeable in pediatric vision concerns;

request a functional vision assessment that includes a screening or functional evaluation for Cortical Visual Impairment (CVI)

Child Has Notable Eye Concerns:

Obtain and review the ophthalmological and functional hearing assessment reports and recommendations.

Concerns About a Child's Hearing

Child With Risk Factor(s) for Hearing Loss

Speech/Language delay
Parental concern about hearing
Family history of hearing loss
Prematurity/NICU > 5 days
Congenital infection (such as CMV)
Bacterial meningitis
Craniofacial abnormalities
Syndromes associated with hearing loss
Ototoxic medications (gentamycin, lasix, chemotherapy
Head trauma

Child Has Concerning Listening/Speaking Behaviors:

Discuss with family, team (including a hearing specialist);

implement appropriate referrals for a comprehensive hearing assessment by a pediatric audiologist;

request a functional hearing assessment that includes a screening or functional evaluation for Central Auditory Processing Disorder (CAPD)

Child Has Notable Physical Concerns:

Obtain and review the audiology and functional vision assessment reports and recommendations.

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Next Steps If There Are Concerns About A Child's Vision Or Hearing

Essential steps for children with confirmed vision impairment impacting educational needs

Provider/Parental Concerns of Vision
(based on observations, interview or ASQ results, presence of risk factors, failed vision screen)

↓

Obtain and review
a functional vision assessment (to understand the impact on educational needs and strategies to employ educationally)

↓

If signs, symptoms, or risk factors are present
that may indicate a hearing impairment or Central Auditory Processing Disorder, discuss with the family the rationale for an evaluation of hearing loss, including a functional hearing screening or functional hearing assessment

↓

Evaluate and monitor for hearing loss
Evaluate and monitor for hearing loss (hearing screening, audiology evaluation, functional hearing assessment)

↓

Proceed with steps to
determine educational impact
and to register the child on the census and access OCDBE services and supports services (next page)

Essential steps for children with confirmed hearing loss impacting educational needs

Provider/Parental Concerns of Hearing Loss
(based on observations, interview or ASQ results, presence of risk factors, failed hearing screen)

↓

Obtain and review
a functional hearing assessment (to understand the impact on educational needs and strategies to employ educationally)

↓

If signs, symptoms, or risk factors are present
that may indicate a visual impairment (including cortical/cerebral), discuss with the family the rationale for an evaluation of vision loss – both clinical and functional.

↓

Evaluate and monitor for vision loss
Evaluate and monitor for vision loss (ophthalmology evaluation, functional vision assessment)

↓

Proceed with steps to
determine educational impact
and to register the child on the census and access OCDBE services and supports services (next page)

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What To Do For Children With Known Vision Impairment And/Or Hearing Loss

Essential steps for children with confirmed vision impairment impacting educational needs

- Obtain **Ophthalmology report** and recommendations
- Obtain **Functional Vision Assessment** (to understand impact on educational needs and strategies to employ educationally)
- **Add** appropriate Vision **Services** (i.e. VI, O&M) and **accommodations** to IFSP/IEP
- **Communicate** to all team members the vision accommodations that are needed
- **Monitor for changes** in vision
- Ensure Part C and Part B programming includes needs related to vision on IFSP/IEP transition plan
- Evaluate and monitor for hearing loss (hearing screening results, audiology report)
- Refer to **Ohio Center for Deafblind Education** if identified with hearing loss of any degree (unilateral or bilateral)
- Consider ***deafblind*** as appropriate **educational category** on IEP
- **Monitor for changes** in hearing

Essential steps for children with confirmed hearing loss impacting educational needs

- Obtain **Audiology report** and recommendations
- Obtain **Functional Hearing Assessment** (to understand impact on educational needs and strategies to employ educationally)
- **Add** appropriate Hearing **Services** and **accommodations** to IFSP/IEP (i.e. Regional Infant Hearing Program, Educational Audiology, Teacher of the Deaf/HH, communication needs)
- **Communicate** to all team members the hearing accommodations that are needed
- **Monitor for changes** in hearing
- Ensure Part C and Part B programming includes needs related to hearing on IFSP/IEP transition plan
- Evaluate and monitor for vision loss (ophthalmology evaluation)
- Refer to **Ohio Center for Deafblind Education** if identified with vision loss in addition to hearing loss
- Consider ***deafblind*** as appropriate **educational category** on IEP
- **Monitor for changes** in vision

If Deafblind

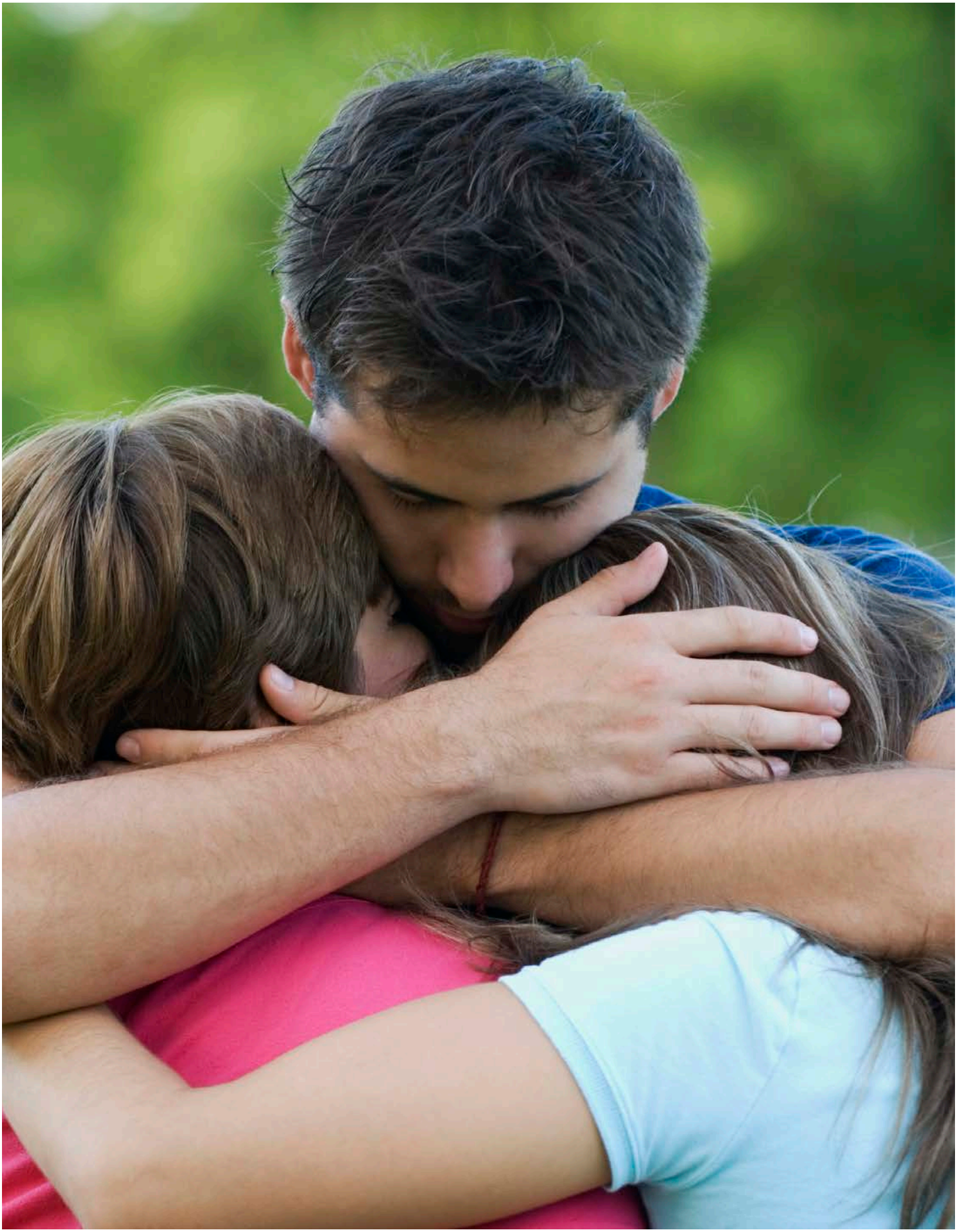
Appendix B: Tests for Possible Use in Assessment of Students with Deafblindness

Norm-Referenced Tests and Inventories

- Adaptive Behavior Assessment System-II
- Bayley Scales of Infant and Toddler Development, Third Edition (Bayley-III)
- Blind Learning Aptitude Test (BLAT) (norms very old, yields higher scores than similar test with current norms)
- Boehm Test of Basic Concepts—3rd edition (BTBC-3)
- Brigance Inventory of Early Development-III Standardized
- Infant-Toddler Social and Emotional Assessment (ITSEA) and Brief Infant-Toddler Social and Emotional Assessment (BITSEA)
- Reynell Development Language Scales (4th edition)
- Reynell-Zinkin Developmental Scales for Young Children with Visual Impairments
- Rhode Island Test of Language Structure (normed on both hearing impaired and non-hearing impaired students)
- Scales of Independent Behavior-Revised, Short Form for the Visually Impaired
- Vineland Adaptive Behavior Scales-II, Parent Rating Scale
- Wechsler Intelligence Scale for Children-Fourth Edition (WISC-IV) (often only verbal scale given to students with vision impairments)
- Wechsler Preschool and Primary Scale of Intelligence- Third Edition (WPPSI-III)
- Woodcock-Johnson Tests of Academic Achievement III Braille-adapted (use the W-J only with older students, as the tests offer few questions at early grade levels)

Developmental, Functional, and Curriculum-Based Tests and Inventories

- Brigance Inventory of Early Development, III
- Carolina Curriculum for Infants and Toddlers with Special Needs
- Carolina Curriculum for Preschoolers with Special Needs
- Early Speech Perception Test (ESP) for Profoundly Hearing-Impaired Children.
- Functional Auditory Performance Indicators (FAPI)
- Grammatical Analysis of Elicited Language, Pre-Sentence Level (GAEL-P)
- Lexical Neighborhood Test (LNT)
- Meaningful Auditory Integration Scale (MAIS)/Infant-Toddler (IT-MAIS).
- Multi-syllabic Lexical Neighborhood Test (MLNT)
- Oregon Project for Preschool Children who are Blind or Visually Impaired
- Systematic Analysis of Language Transcripts (SALT)



Notes

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