Indiana Department of Health

Center for Deaf and Hard of Hearing Education

Guidelines for the Assessment and Educational Evaluation of Children who are Deaf and Hard of Hearing in Indiana

Based on 511 IAC Article 7, 2024

Effective Date: August 2008
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This document is dedicated to all children who are deaf and hard of hearing in Indiana and their families. Since 1843, children who are deaf and hard of hearing have been educated in this state and have become productive citizens. The purpose of this guide is to ensure that all children who are deaf and hard of hearing leave the educational system with the knowledge and tools they need to optimize their potential. This guide was developed to help educators use assessment information and evaluations to help parents and case conference committees determine how to meet students' educational needs.

This guide is made possible by the teamwork and collaboration of American Sign Language specialists, audiologists, educational interpreters, listening and spoken language professionals, occupational therapists, parents, physical therapists, school psychologists, speech-language pathologists, social workers, and teachers of the deaf and hard of hearing. We would also like to thank peer and professional reviewers who share the vision of improving educational outcomes for children who are deaf and hard of hearing.

The 2024 Revisions to Guidelines for the Assessment and Educational Evaluation of Deaf and Hard of Hearing Children in Indiana was modified by staff at the Center for Deaf and Hard of Hearing Education based on Article 7 changes of 2024. The staff includes diverse professionals including those who are Deaf, hearing, and hard of hearing; those raised in environments using spoken English; and others, who grew up as proficient users of American Sign Language (ASL) in the Deaf community. This guide represents the consensus of this diverse population. Comments or questions regarding these guidelines may be addressed to The Center for Deaf and Hard of Hearing Education, 2 North Meridian, Indianapolis, Indiana 46204, 317-232-7349, cdhheassessment@health.in.gov.

Notice

The guidance in *Guidelines for the Assessment and Educational Evaluation of Deaf and Hard of hearing Children in Indiana, based on 511 IAC Article 7, 2024,* is not binding on local educational agencies or other entities. Except for the statutes, regulations, and court decisions that are referenced herein, the document is exemplary, and compliance with it is not mandatory.

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Preface

This guide is in accordance with the Indiana State Board of Education Special Education Rules, Article 7 (Title 511 Article 7 Rule 32 through 50), which can be found at the following web address: https://ichamp.doe.in.gov/article7.pdf. This guide also follows the National Association of State Directors of Special Education, Inc. (NASDSE) Optimizing Outcomes for Students who are Deaf or Hard of Hearing: Educational Service Guidelines, available at https://deafedguidelines.org. The purpose of this guide is to support professionals working with children who are deaf and hard of hearing in schools. This document will assist professionals to understand laws that apply to children who are deaf and hard of hearing, evaluation needs, and eligibility considerations.

The Center for Deaf and Hard of Hearing Education

The Center for Deaf and Hard of Hearing Education (The Center) is governed by the Indiana Department of Health (IDOH) and was established by legislation in 2012. The Center serves as a statewide public agency according to Article 7, as outlined in 511 IAC 7-32-77 with interagency agreements in accordance with 511 IAC 7-33-3. The Center's Mission is to promote positive outcomes for all children who are deaf and hard of hearing through information, services, and education. Additional information regarding the Center history, legislation, programs, and services can be found at www.in.gov/health/cdhhe.

Center Assessment Services

The Center's Assessment Team provides testing for students who are deaf and hard of hearing in their communication mode; sign language, spoken communication, or a combination. Requests for technical assistance to the Center are made for a variety of reasons, including questions regarding eligibility for special education, concerns regarding lack of progress, access information, specific educational struggles, or a need for the Center's participation in the case conference and/or Individualized Education Program (IEP) development. Requests are received directly from parents, schools, physicians, and other agencies. The Request for Technical Assistance Form is available on the Center website.

The Center collaborates with local educational personnel, clinical professionals, therapists, and children's families to provide a comprehensive evaluation of the child. Specialized professionals at the Center conduct a file review of medical records, any previous educational records, data from schools or other evaluations, and family interviews to determine the need for additional testing, observations, technical assistance, and/or resources. Members of the child's educational team are encouraged to be a part of the assessment at the Center and are welcome to provide

information that might assist the assessment team in gathering more comprehensive data during the relatively brief, one-day evaluation.

The Center offers a multidisciplinary team of professionals who are knowledgeable in the unique needs of children who are deaf and hard of hearing and who conduct an intensive diagnostic study of the child. The team collects information through testing, observation analysis, questionnaires, and interviews with families and professionals. Following the evaluation, members of the evaluation team review a summary of findings with the family and finalize a comprehensive report. Evaluation team members are also available to discuss diagnostic findings and educational recommendations based on identified strengths and areas of need with the educational team in a staffing and/or case conference.

Special Education Law

This portion of the guidelines document provides information regarding the laws that apply to children who are deaf and hard of hearing in Indiana. School professionals working with this population should be familiar with these laws throughout the student's educational journey.

Americans with Disabilities Act

Individuals who are deaf or hard of hearing (DHH) are considered a marginalized community and fall under the guidance of the Americans with Disabilities Act (ADA). The ADA requires that Title II entities (state and local governments) and Title III entities (businesses and nonprofit organizations that serve the public) communicate effectively with people who have communication disabilities. Professionals working with children who are deaf or hard of hearing are encouraged to report any observed ADA violations. ADA states:

- The purpose of the effective communication rules is to ensure that the person with a vision, hearing, or speech disability can communicate with, receive information from, and convey information to, the covered entity.
- Covered entities must provide auxiliary aids and services (e.g., hearing assistive technology (HAT), computer aided real-time (CART) captioning, interpreting services, educational audiology services, etc.) when requested by an individual or the individual's family to communicate effectively with people who have communication disabilities.
- The key to communicating effectively is to consider the nature, length, complexity, and context of the communication and the person's normal method(s) of communication
- The rules apply to communicating with the person who is receiving the covered entity's goods or services as well as with that person's parent, spouse, or companion in appropriate circumstances

Title II and Title III entities are required to provide requested auxiliary aids and services. No evaluation ahead of the provision of auxiliary aids and services is necessary. It is the responsibility of the individual and/or family to consult with qualified/licensed professionals as necessary to determine the appropriateness of auxiliary aids and services.

Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA) provides guidance for appropriate evaluations when determining initial eligibility or conducting a re-evaluation (https://sites.ed.gov/idea/). According to section 300.304:

(b) *Conduct of evaluation. In conducting the evaluation, the public agency must—*

(1) *Use a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information about the child, including information provided by the parent, that may assist in determining—*

(i) Whether the child is a child with a disability under §300.8; and

(ii) The content of the child's IEP, including information related to enabling the child to be involved in and progress in the general education curriculum (or for a preschool child, to participate in appropriate activities);

(2) *Not use any single measure or assessment as the sole criterion for determining whether a child is a child with a disability and for determining an appropriate educational program for the child; and*

(3) *Use technically sound instruments that may assess the relative contribution of cognitive and behavioral factors, in addition to physical or developmental factors.*

(c) *Other evaluation procedures. Each public agency must ensure that—*

(1) Assessments and other evaluation materials used to assess a child under this part—

(i) Are selected and administered so as not to be discriminatory on a racial or cultural basis;

(ii) Are provided and administered in the child's native language or other mode of communication and in the form most likely to yield accurate information on what the child knows and can do academically, developmentally, and functionally, unless it is clearly not feasible to so provide or administer;

(iii) Are used for the purposes for which the assessments or measures are valid and reliable;

(iv) Are administered by trained and knowledgeable personnel; and

(v) Are administered in accordance with any instructions provided by the producer of the assessments.

(2) Assessments and other evaluation materials include those tailored to assess specific areas of educational need and not merely those that are designed to provide a single general intelligence quotient.

(3) Assessments are selected and administered so as best to ensure that if an assessment is administered to a child with impaired sensory, manual, or speaking skills, the assessment results accurately reflect the child's aptitude or achievement level or

whatever other factors the test purports to measure, rather than reflecting the child's impaired sensory, manual, or speaking skills (unless those skills are the factors that the test purports to measure).

(4) The child is assessed in all areas related to the suspected disability, including, if appropriate, health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities;

(6) In evaluating each child with a disability under §§300.304 through 300.306, the evaluation is sufficiently comprehensive to identify all of the child's special education and related services needs, whether or not commonly linked to the disability category in which the child has been classified.

(7) Assessment tools and strategies that provide relevant information that directly assists persons in determining the educational needs of the child are provided.

Section 504 of the Rehabilitation Act of 1973

According to the Office for Civil Rights under the United States Department of Health and Human Services, "Section 504 of the Rehabilitation Act of 1973 is a national law that protects qualified individuals from discrimination based on their disability. The nondiscrimination requirements of the law apply to employers and organizations that receive financial assistance from any federal department or agency, including the U.S. Department of Health and Human Services (DHHS). These organizations and employers include hospitals, nursing homes, mental health centers, and human service programs. Section 504 forbids organizations and employers from excluding or denying individuals with disabilities an equal opportunity to receive program benefits and services. It defines the rights of individuals with disabilities to participate in, and have access to, program benefits and services."

The U.S. Department of Education has provided educational guidelines for section 504. Section 504 requires public schools to provide parents and students with disabilities procedural safeguards that are very similar to the protections afforded under the Individuals with Disabilities Education Act (IDEA). Children who are deaf and hard of hearing qualify for accommodations under section 504.

The process of deciding if a child who is deaf or hard of hearing receives special education services under Article 7 or section 504 is illustrated in the flowchart included in the appendix.

A 504 Plan can be developed in the interim while the school team is undergoing the special education evaluation process to determine eligibility.

Although rare, a 504 Plan and an Individualized Education Program (IEP) can exist at the same time. Typically, once an IEP is developed, accommodations contained in a 504 Plan are considered and then added into the IEP. Schools are encouraged *not* to wait to determine

eligibility for special education before providing appropriate accommodations to allow children to adequately access their education and school environment.

Indiana Article 7

Deaf/Hard of Hearing Eligibility

To receive special education services, a child needs to be found eligible through an evaluation process. According to 511 IAC 7-41-4 the eligibility criteria for Deaf or Hard of Hearing (DHH) is as follows:

(a) *"Deaf or hard of hearing", which may be referred to as a hearing impairment, means the following:*

(1) A disability that, with or without amplification, adversely affects the student's:

(A) ability to use hearing for developing language and learning;

(B) educational performance; and

(C) Developmental progress.

(2) The hearing loss may be:

(A) permanent or fluctuating;

(B) mild to profound; or

(C) unilateral or bilateral.

(3) Students who are deaf or hard of hearing may use:

(A) spoken language;

(B) sign language; or

(C) a combination of spoken language and signed systems.

(b) *Eligibility for special education as a student who is deaf or hard of hearing shall be determined by the student's CCC. This determination shall be based on the multidisciplinary team's educational evaluation report described in 511 IAC 7-40-5(e), which includes the following:*

(1) An assessment of the following:

(A) Current academic achievement as defined at 511 IAC 7-32-2.

(B) Functional skills or adaptive behavior across various environments from multiple sources.

(C) Communication conducted in the:

(i) language or system utilized for the student's instruction; or

(ii) student's preferred mode of communication; that assesses the student's receptive and expressive language skills.

(2) A social and developmental history that may include, but is not limited to, the following:

(A) Communication skills.

(B) Social interaction skills.

(C) Motor skills.

(D) Responses to sensory experiences.

(E) Relevant family and environmental information.

(3) A written report from an educational or clinical audiologist, otologist, or otolaryngologist with information regarding the:

(A) etiology of the hearing loss; and

(B) student's potential requirement for amplification, if appropriate.

(4) Any other assessments and information, collected prior to referral or during the educational evaluation, necessary to:

(A) determine eligibility for special education and related services; and

(B) inform the student's CCC of the student's special education and related services needs.

Deaf-Blind Eligibility

According to 511 IAC 7-41-5 the eligibility criteria for Deaf-blind is as follows:

(a) *"Deaf-blind", which may be referred to as dual sensory impaired, means a disability that:*

(1) is a concomitant hearing and vision loss or reduction in functional hearing and vision capacity;

(2) causes significant communication and adaptive behavior deficits;

(3) adversely affects the student's educational performance; and

(4) cannot be accommodated for by use of a program or service designed solely for students who are:

(A) deaf or hard of hearing; or

(B) blind or have low vision.

(b) *Students who are deaf-blind represent a heterogeneous group that includes the following:*

(1) Students who are both deaf and blind with:

(A) measured acuities and intellectual and adaptive functioning; or

(B) estimated acuities and intellectual and adaptive functioning supported by a description of pathology.

(2) Students with hearing and visual reductions of a mild to severe degree:

(A) with additional learning or language disabilities that adversely affect educational performance; or

(B) who have been diagnosed with a chronic or degenerative pathology or a disease that may potentially result in deaf-blindness.

(3) Students with generalized central nervous system dysfunction who:

(A) exhibit:

(i) auditory and visual impairments; or

(ii) deficits in auditory-visual functioning; and

(B) may demonstrate inconclusive or inconsistent responses:

(i) during hearing and vision assessments; or
(ii) to auditory and visual stimuli in the environment.

(c) A student who is solely deaf-blind is not considered to be a student who has multiple disabilities as defined in section 9 of this rule.

(d) Eligibility for special education as a student who is deaf-blind shall be determined by the student's CCC. This determination shall be based on the multidisciplinary team's educational evaluation report described in 511 IAC 7-40-5(e), which includes the following:

(1) An assessment of the following:
(A) Current academic achievement as defined at 511 IAC 7-32-2.
(B) Functional skills or adaptive behavior across various environments from multiple sources.
(C) Communication conducted in the:
(i) language or system utilized for the student's instruction; or
(ii) student's preferred mode of communication; that assesses the student's receptive and expressive language skills.
(D) Functional vision.
(E) Functional literacy as described in 511 IAC 7-42-6(c)(5).

(2) A systematic observation of the student across various environments.

(3) A social and developmental history that may include, but is not limited to, the following:
(A) Communication skills.
(B) Social interaction skills.
(C) Motor skills.
(D) Responses to sensory experiences.
(E) Relevant family and environmental information.

(5) A written report from an optometrist or an ophthalmologist that includes the following:
(A) Etiology and prognosis of the visual dysfunction.
(B) Secondary or accompanying visual conditions, such as nystagmus or photophobia, if appropriate.
(C) Near/distance and corrected/uncorrected acuity measures for left, right, and both eyes, as appropriate.
(D) Measures of visual fields for both eyes, if appropriate.
(E) Recommendations for use of aids, glasses, or lighting requirements, if appropriate.

(6) A written report from an educational or clinical audiologist, otologist, or otolaryngologist with information regarding the:
(A) etiology and prognosis of the hearing loss; and
(B) student's potential requirement for amplification, if appropriate.

(7) Any other assessments and information, collected prior to referral or during the educational evaluation, necessary to:

(A) determine eligibility for special education and related services; and

(B) inform the student's CCC of the student's special education and related services needs.

Indiana Deaf Education and Assessments of Language (IDEAL)

IDEAL was approved and signed by Governor Eric Holcomb on May 5, 2019. This law follows best practice and similar laws in other states. One purpose of the law is to encourage annual monitoring of the language skills of children who are deaf or hard of hearing to reduce language deprivation and improve student outcomes. The law was also designed to inform parents about language, milestones, special education law, and resources. IC 20-35-12 includes children with a diagnosed hearing loss:

- Through age 10; and
- Who have an IEP, ISP, 504, or no services

This guidelines document provides more information about IDEAL and monitoring language progress of students who are deaf and hard of hearing in the sections below.

Communication and Language

Importance of Language Assessment and Ongoing Progress Monitoring

Ongoing progress monitoring is important to identify lack of access early.

Communication is essential for individuals to express their wants, needs, thoughts, feelings, and ideas to others. Using language is how individuals express themselves within the larger community. Language is a key part of culture and a fundamental part of social interaction. Learning language proficiently is essential to gain the skills needed for reading and writing, which is ultimately needed for employment and matriculating into society.

Students need to develop two types of language conversational informal language fluency (CILF) or basic interpersonal communication skills (BICS) and formal academic language fluency (FALF) or cognitive academic language proficiency (CALP). CILF involves daily social skill navigation. It is language that occurs where both communication partners are present in the moment and have access to all the background information. FALF is what a child needs to be successful in school. The ability to understand and explain why something occurs, to process information and vocabulary at a higher level, and to work within abstract constructs. It requires the child to work within a context-reduced situation where not all the communication partners have the same background information and there are no extra linguistic cues to support meaning. Without fully developed FALF, students may struggle to keep up with the writing demands of the classroom, even if they demonstrate proficiency with CILF. Many times, the student's language skills are impacted by access to information. Only 10-20% of language is

directly taught, and the rest is overheard or overlearned. If a student does not have full access to language, then they will not continue to grow and thus their reading levels will not continue to improve.

Red flags that could indicate the child may lack access to language include:

- Struggles with language and understanding complex language concepts
- Poor reading skills and lack of academic progress
- Challenges with executive function
- Behavioral challenges
- Low self-esteem and/or lack of identity
- Impaired relationships

Language Deprivation

During evaluations, a child's lifelong access to communication needs to be considered. Children who are deaf and hard of hearing are at risk for language deprivation. Language deprivation occurs when there is a lack of access to a full and natural language when children are learning language. The critical period of learning language is from birth to 5 years of age.

Professionals working with children who are deaf and hard of hearing must understand language deprivation and its lifelong impact on a child who is deaf or hard of hearing without early language access. Language deprivation prevents children from developing connected and complex language skills necessary for social, academic, and literacy skills. More information about access for children who are deaf and hard of hearing can be located within the Center's Access Series document (https://www.in.gov/health/cdhhe/files/EXCEL2-language-access-series-clickable-links.pdf). Language deprivation:

- Is not a result of not being able to hear or an inevitable consequence of deafness
- Can be prevented by understanding and ensuring access to a full rich language early
- Results in long-term struggles if identification and timely intervention do not occur

Children who experience language deprivation may develop language deprivation syndrome (LDS). LDS causes recognizable social, emotional, intellectual, and other consequences. Individuals with LDS often present with structurally incomplete neurodevelopment and demonstrate permanent characteristics (e.g., learning disabilities, cognitive delays), even with supportive intervention. Symptoms of LDS include:

- Emotional regulation difficulties
- Trouble gaining and maintaining relationships
- Poor world knowledge
- Acting out feelings

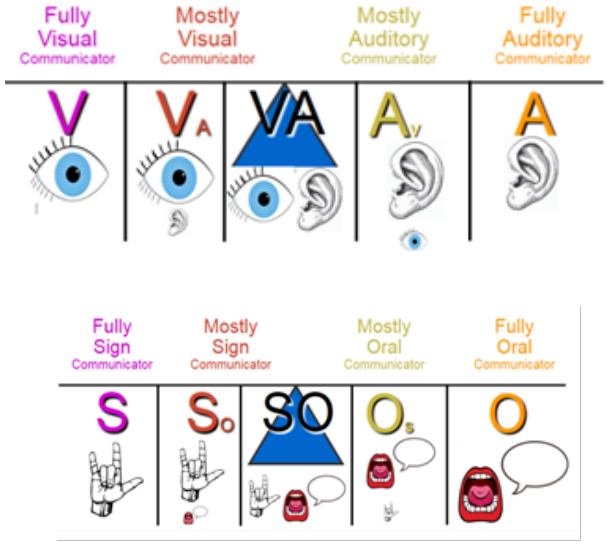
Language deprivation syndrome has a lifelong impact on individuals who are deaf and hard of hearing.

- Poor predictions skills
- Problems with spatial awareness, use of classifiers, referents, sign space and nonmanual markers (for those using American Sign Language)
- Appears to use language fluently, but closer inspection reveals dysfluent production and poor comprehension
- Struggles with the concept of time
- Struggles with cause and effect
- Lacks theory of mind
- Difficulty understanding abstract concepts
- Struggles with learning

Primary Language and Preferred Mode of Communication

Before discussing evaluation procedures and considerations, professionals working with deaf and hard of hearing children should understand Article 7 terminology of primary language and preferred mode of communication. Valid evaluation results are obtained when tests are provided and administered in the student's primary language and preferred mode of communication. The student's preferred mode of communication, which may be signed or spoken (with or without the support of signs or cues), must be respected. In doing so, the student's primary language or preferred mode of communication should be used throughout the educational evaluation.

Children who are deaf and hard of hearing are diverse. They have different hearing thresholds and access to language, ages of identification, linguistic backgrounds, and cultural identities. They will use a spectrum of communication ranging from fully visual to fully auditory receptively and fully signing to fully verbal expressively. Their selected mode of communication may vary depending on their environment and communication partner.



S:	Uses signs/ASL only
So:	Uses signs/ASL; some oral communication
SO:	Equally able to use sign and oral communication
Os:	Uses oral communication; signs for clarification
O:	Uses oral communication only

V:	Depends on visual information ASL/signs
Va:	Depends on ASL/signs; obtains some benefit from auditory information
VA:	Equally depends on and able to use ASL/signs and auditory information via spoken language
Av:	Depends on spoken language, sometimes needs sign to clarify spoken language
A:	Depends on auditory information via spoken language

For those children who are deaf and hard of hearing who use a combination of spoken language and American Sign Language, signing may be used to support spoken English development or as a primary mode of communication. Understanding a child's level of sign use may be beneficial to evaluation and educational planning.

- Foundational use - Use of sign vocabulary to jumpstart early language development before listening technologies are fitted and the child gains access to spoken language. Sign language is discontinued soon after technology is fit with the goal of focusing solely on spoken language.
- Transitional use - Use of sign vocabulary as a jumpstart to early language. Sign use continues as a child transitions to proficiency in spoken English. Sign is slowly diminished as the child demonstrates increased proficiency in spoken English.
- Differentiated (strategic) use - Use of sign continues beyond the early language development years as a support to spoken English, based on the communication circumstances.
- Dominant use - Primary use of a full visual language for learning and communication. Spoken language skills are addressed and demonstrated in controlled contexts, if used.
- Bimodal-bilingual use - Includes establishment of language foundations and learning in two modalities (auditory and visual). ASL and spoken English are developed and used as independent languages based on the individual characteristics and goals of each student. English may be written only or both oral and written.

Best practice includes direct testing in the child's preferred mode of communication. A child that uses ASL should have their sign skills assessed by trained native users of ASL.

There are challenges when assessing language comprehension abilities while using an interpreter (e.g., errors in translation from examiner to student and vice versa). Test translations often result in significant changes in the underlying psychological constructs assessed by the translated version, altering test validity and possibly resulting in errors leading to serious consequences when decisions are made based on inaccurate translations. It is rare that available norm-referenced assessments can be translated to American Sign Language effectively because of the English grammar-based nature of the stimulus items. Additionally, vocabulary and figurative language development is different and often cannot be translated, regardless of the spoken or signed language. When possible, children who are deaf or hard of hearing should be assessed by professionals fluent in their languages and modalities.

A comprehensive assessment will be crucial in providing information to guide informed decision making around mode of communication. The evaluation should provide guidance in determining:

- If the child's hearing levels (with or without hearing technology) will allow sufficient access to learn language through audition in a manner and timeframe that will allow for

communicative competence, direct and incidental social and academic information, social communication skills, and cognitive academic language skills.
- If the child does not have full access to direct and incidental language in every environment, what will enhance a child's communicative competence and potential to develop basic interpersonal communication skills and cognitive academic language proficiency (e.g., American Sign Language, changes in technology, visual supports, etc.).

Educational Evaluation Guidelines

For all students with suspected disabilities, Indiana requires a comprehensive educational evaluation for which a multidisciplinary team must use a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information about the student. Many students who are deaf or hard of hearing do not perform as well as their peers. Therefore, comprehensive evaluation and consultation by professionals who are trained in assessing this low-incidence population are needed to ensure that students who are deaf and hard of hearing continue to make progress and close any existing gaps. Expectations are for students who are deaf and hard of hearing to align with same-age hearing peers for all facets of language and achievement progress.

Educational teams are encouraged to individualize evaluations and gather comprehensive information so that academic and methodology decisions are not based solely on a child's audiogram or communication skills. Families and professionals need to consider the child's cultural background, cognition, thinking skills, preferred mode of communication, learning style, and academic abilities when making critical decisions to ensure the child can reach their full potential. Comprehensive evaluation and ongoing progress monitoring are critical to support goal development for student growth.

Prior to evaluating the student, multidisciplinary teams should:

- Conduct a file review that includes, but is not limited to:
    - Educational factors
    - Additional eligibilities, exceptionalities and/or specialized school services (e.g., Response to Intervention (RtI), Multi-Tiered System of Support (MTSS), English Learning (EL), etc.)
    - Attendance consistency and stability
    - Early education (early intervention, preschool, etc.)
    - Performance on curriculum-based assessments and measures
    - Performance on state standardized assessments
    - Functional listening and vision as related to how the child navigates and accesses their educational environment
    - Accessibility to instruction and technologies
- Systematic classroom observation across multiple settings paying attention to:
    - Attention to instruction and participation in the educational environment

    - Social interactions with peers and adults
    - Self-advocacy and social pragmatic skills
    - Sensory function (hearing and vision status) and structures
    - Additional needs, challenges, and/or conditions
    - Activity and participation in home and classroom activities including consideration of language use and access
    - Impact within various educational environments
- Access to various environments in the community and advocacy skills at home
- Gather a social and developmental history that includes:
    - Age of onset, confirmation, and etiology of current hearing levels
    - If applicable, age of access to hearing devices, history of device use, and current hearing technology used
    - Developmental and language milestones
    - Health related information that may have or will impact hearing status (e.g. genetics, disabilities, concerns)
    - Cultural and linguistic information
        - Language history including information about both auditory and visual language if applicable
- Audiologic history – If this information has not been determined, the assessment will need to gather crucial information:
    - Hearing levels
    - Use and effectiveness of personal hearing devices and hearing assistive technology
    - Auditory skill development: information regarding discreet auditory skills across the continuum of awareness/detection, discrimination, identification, and comprehension
    - Speech discrimination in quiet and noise, including impact of distance and visual cues
    - Functional listening and speech perception skills (e.g., environmental sounds, music, words, conversation, telephone, suprasegmentals, etc.)

The importance of parental involvement during the educational evaluation process is critical and included in IDEA regulations previously discussed. Therefore, school teams should seek parent input regarding:

- Birth history and Universal Newborn Hearing Screening results
- Medical and audiologic histories
- Social and developmental history
- Mode of communication, home language, and cultural factors
- Educational history, (e.g., schools attended, grades – both assignments and classroom and state standardized assessments, and transcripts)
- Description of the child's/student's strengths, weaknesses, and interests

- Description of the child's/student's temperament and behavior
- Concerns and vision for the child's future
- Ratings of the child's adaptive functioning within the home and community
- Other pertinent information that may be gained from interview or completion of checklists and rating scales

Areas of Assessment

Audiology

The goal of audiologic evaluation is to determine and understand the educational impact of a student's auditory access. Results guide the development of effective accommodations, supporting optimal access to the curriculum.

The assessment should provide comprehensive information on the type and degree of elevated hearing levels, the child's auditory perception skills, the use and effectiveness of amplification and assistive technology, and their functional performance in a standard educational setting.

Speech perception testing should be performed under optimal listening conditions as well as simulated classroom conditions. This may include traditional sound booth testing, classroom observation, functional listening tasks, and feedback from the student's teachers.

Evaluations should include assessments with both auditory-only and combined auditory-visual (e.g., access to the speaker's face and speechreading cues) conditions to better understand how a student may approach and process auditory information. While this guide provides key assessment components, it is not exhaustive. For comprehensive evaluation and planning, refer to guidelines from the American Speech-Language-Hearing Association (ASHA), the Educational Audiology Association (EAA), the American Academy of Audiology (AAA), and the National Association of State Directors of Special Education (NASDSE).

Communication

A communication evaluation provides insight into a child's communication needs to guide educational planning, accommodations, and modifications. A communication evaluation is a required portion of a deaf and hard of hearing eligibility considerations. A language evaluation will also determine if a child may need the additional eligibility of Language Impairment (LI) and/or Speech Impairment (SI). The 2023 American Speech-Language and Hearing Association (ASHA) guidelines (https://www.asha.org/practice-portal/professional-issues/language-communication-deaf-hard-of-hearing-children/) call for the inclusion of the following areas within a communication evaluation when applicable for the individual child:

- Expressive and receptive language – spoken and/or signed
    - Prelinguistic skills and early linguistic skills
    - Phonology and phonological awareness

    - Semantics (vocabulary)
    - Morphology and syntax (grammar)
    - Pragmatics and social communication
    - Discourse levels (includes narrative and discourse evaluations)
    - Visual systems (e.g., sign supported speech)
    - Role of signs for language and communication (e.g., foundational, transitional, strategic, dominant, bilingual-bimodal)
    - Proficiency and demands in contextual conversational language and formal context reduced language used within the academic setting
- Language related cognitive abilities
    - Executive function
    - Theory of mind
    - Attention, auditory vs. visual memory, reasoning, problem-solving, and metacognition
    - Processing of language information (e.g., presence of mazes, word finding, need additional processing time, etc.)
- Social, emotional, and behavioral
    - Play skills and friendships
    - Ability to interpret and engage in social situations
    - Independence with communication
    - Self-determination, self-regulation, and self-advocacy needs
    - Communication repair
- Additional needs that may call for augmentative and alternative communication
- Language proficiency
    - Prelinguistic/emergent skills
    - Social and academic proficiency
    - Use of comprehension strategies
    - Need for an alternative instructional approach(es) to support the development of early language and literacy skills (e.g., sign language, sign language phonology, fingerspelling, visual phonics)
- Reading/writing and other academic skills where use of language and vocabulary is a factor (e.g., math vocabulary) to include when appropriate
    - Letter and word recognition
    - Word knowledge and decoding
    - Written language (literacy)
    - Impact of auditory input and language access on phonological abilities and writing conventions versus content
    - Discourse
    - Spelling
    - Grammatical structures
    - Understanding and conveying meaning

    - Organization
    - Fluency
    - Automaticity
- Speech
    - Oral-motor structure and function
    - Articulation of vowels and diphthongs as well as consonants and phonological processes
    - Competence for speech production, overall intelligibility in conversation
    - Impact of access to acoustic information
    - Voice and prosody
    - Resonance
    - Fluency
    - Sign production
- Fine and gross motor structure and function as related to sign production
    - Accuracy, fluency, and intelligibility of sign and fingerspelling production

Multiple professionals, including a speech-language pathologist, American Sign/Visual Language specialist, teacher of deaf and hard of hearing, educational audiologist, and educational interpreter should collaborate throughout the language evaluation for optimum results. Furthermore, an occupational therapist (OT) can offer insight related to handshapes and sign formation. A physical therapist (PT) can ensure a child has positional access to the communication evaluation and is balanced to maximize a student's cognitive reserves available for assessment. Both the OT and/or PT can recommend accommodations or modifications for any sensory processing needs. Additionally, a school psychologist can provide insight into any cognitive or learning differences, attention needs, behavioral challenges, or other cognitive factors that should be considered within the language evaluation and results interpretation. Strong consideration should be given to American Sign Language (ASL) being assessed by trained deaf professionals fluent in ASL. A team approach throughout the communication evaluation ensures information that could not otherwise be obtained is available.

Due to diverse student backgrounds, communication evaluations should incorporate bilingual evaluation guidelines from sources such as IDEA and ASHA. These guidelines are applicable to varied languages and dialects present throughout Indiana. Language differences, including those related to different American accents, are acknowledged and accepted when assessing speech/production and language skills.

Psychoeducational

Psychological or psychoeducational evaluation results will produce information about a child's cognitive skills, learning differences, adaptive and developmental skills, and/or behavioral emotional skills. Norm-referenced evaluations may provide information regarding the student's skills and abilities in comparison to hearing peers. It is important to consider qualitative and

quantitative results in conjunction with additional available information (e.g., criterion-referenced educational evaluations, portfolio educational evaluations, dynamic assessments, observations, longitudinal data, medical diagnoses, parent and teacher rating scales, etc.) when interpreting results and developing the individualized education plan/program (IEP).

Most commonly, the school psychologist will take a lead role related to this evaluation, particularly with intellectual and behavioral and emotional functioning. Trained professions can conduct some or all portions of the psychological evaluation. Educational diagnosticians or other individuals with higher degrees (e.g., occupational therapists, speech-language pathologists, physical therapists, individuals with doctorates, etc.) may conduct portions of the evaluation. Professionals must have specific training in the area assessed and be permitted to administer the evaluation as stated within the provided manual. A psychoeducational evaluation may include:

- Intellectual abilities
- Behavioral and emotional functioning
- Academic achievement
    - Preacademic skills is a developmental evaluation of readiness skills (e.g., visual discrimination skills, identification of letters and numbers, identification of body parts, matching, predicting, sorting, and basic concepts).
    - Achievement is an evaluation of academic skills and should provide information regarding the student's present level of independent functioning. This may include norm-referenced evaluations of the student's skills as well as a review of academic progress in their current program and documentation of previous assessment data as pertinent to the current referral.
- Executive functioning
- Adaptive functioning
    - Adaptive behavior rating scales may be used for individuals who are deaf or hard of hearing for initial eligibility referrals as well as for those who are very young or who have multiple disabilities. Areas evaluated may include self-help skills, daily living skills, independent functioning, and communication and social skills.
- Assessment of processing (visual and/or auditory)

For children who are deaf and hard of hearing, psychoeducational information may provide background on factors contributing to a child's struggles within the classroom, including the impact of access, lack of progress, and/or behaviors impacting access to education. If a child's intellectual functioning is evaluated, the current best practices recommend assessing both verbal and nonverbal abilities because language reasoning is considered a good indicator of academic functioning. Verbal reasoning abilities should be considered in conjunction with the student's performance on the language skills measures.

An educational evaluation of visual perceptual skills is extremely significant for students who rely heavily on the visual channel for communication. Areas evaluated may include visual discrimination, visual memory, visual-motor integration, visual figure-ground, visual closure, and spatial relations. This testing also provides excellent insight into whether a child that is deaf or hard of hearing has challenges related to lack of access to language and/or a language disorder.

Additional Evaluation Areas

Complete evaluations are essential for developing intervention plans, specially designed instruction, goals/benchmarks, accommodations, and modifications. Additional areas to consider evaluating include:

- Occupational and physical therapy
    - Occupational and physical therapists have the expertise to investigate a child's sensory processing, visual processing, and motor skills. Any differences or challenges with these skills can educationally impact a child's performance on testing and within the classroom that may not be related to their hearing status. The evaluation of sensory and motor skills may be especially significant for students who are deaf and hard of hearing.
- Vestibular function
    - Children who are deaf and hard of hearing often have vestibular challenges, particularly if the child has cochlear implants. Additionally, some neurological etiologies may result in concurrent vestibular challenges affecting an individual's motor skills, body awareness, and visual-motor functioning. An audiologist or physical therapist trained in assessing vestibular function may provide invaluable insight into needed classroom accommodations. A child who is not balanced is using increased cognitive resources to accommodate for their vestibular dysfunction, which means they have less cognitive reserves available to learn language and academic skills.
- Vision
    - Understanding a child's vision is essential to determine effective supports to assist with educational planning for children who are deaf and hard of hearing.
- Emotional and behavioral function and/or executive function
    - This additional testing may be beneficial for students with behavioral concerns at home and within community or educational environments, such as attention to tasks, ability to accept change and shift focus, compliance, etc.
- Cognitive skills and learning abilities
    - If concerns exist about a child's learning potential and abilities, cognitive testing may be useful to examine. It can be beneficial for the school psychologist testing cognition to collaborate with the speech-language pathologist to compare performance on cognitive testing with language testing. Comparison may determine if access to language and language deprivation may be impacting overall performance. Absence of hearing does not cause cognitive delays;

however, lack of exposure to language early in life can affect cognitive functioning.

Report recommendations should be based on the results of the evaluation as they relate to the educational impact of hearing on communication, including:

- Access to direct and incidental language
- Language levels, including academic and connected language
- Literacy, social-emotional behaviors
- Academic competency

Additional Considerations

It is estimated 40 to 80 percent of children who are deaf and hard of hearing have an additional need or diagnosis.

It is estimated 40 to 80 percent of children who are deaf and hard of hearing have an additional need or diagnosis. Children who are deaf and hard of hearing may also be considered for other eligibilities such as Autism Spectrum Disorder (ASD), Intellectual Disability (ID), Other Health Impairment (OHI), and Specific Learning Disability (SLD). The primary eligibility should be what most impacts that child's learning and performance in school.

Evaluating teams will need to consider if a child has additional needs when considering what areas to include in an assessment, what tools are the most valid and provide optimum information, and how to conduct the evaluation in a culturally, linguistically, and developmentally appropriate way. Additional assessment challenges are as follows:

- Discriminating language disorder, language difference, language deprivation, and/or lack of access to language.
- Finding tools that can provide valid and reportable results when a child uses American Sign Language (ASL) as their mode of communication as well as finding qualified fluent users of ASL to administer and interpret the testing.
- Finding qualified professionals who understand the unique needs of children who are deaf and hard of hearing and can assess American Sign Language, auditory skills, and spoken language skills, particularly recognizing lack of access, children who have additional needs, describing the whole child, and determining what supports, interventions, and accommodations will be needed to optimize the child's outcomes.
- Having professionals as part of the team who are skilled with technology and can perform any troubleshooting needed during assessment.

Specific Learning Disabilities and Exclusionary Factors

Students who are deaf and hard of hearing may have additional special education eligibilities. For example, students who have a deaf and hard of hearing (DHH) eligibility may also have a developmental delay (DD), specific learning disability (SLD), or intellectual disability (ID). Having

DHH eligibility should not preclude the consideration of additional eligibility areas. It is important for case conference committees to determine primary, secondary, and tertiary eligibilities in order of how those eligibilities impact the child's educational progress and performance.

Indiana permits the use of a student's response to research-based intervention, as well as any student's pattern of strengths and weaknesses in performance or achievement (or both), as part of the comprehensive evaluation and evidence for a specific learning disability (SLD). According to Article 7, a "specific learning disability" means a disorder in one (1) or more of the basic psychological processes involved in understanding or in using language, spoken or written, that adversely affect the student's educational performance. Article 7 requires that the following be ruled out as the primary cause(s), not the sole cause, of the student's learning difficulties and academic underachievement:

(A) Visual, hearing, or motor disability
(B) Intellectual disability
(C) Emotional disturbance
(D) Cultural factors
(E) Environmental or economic disadvantage
(F) Limited English proficiency

Assessment Considerations

Professionals and professional qualifications

Following the National Association of State Directors of Special Education's Educational Service Guidelines: Optimizing Outcomes for Students who are Deaf and Hard of Hearing, Evaluations should be conducted by professionals who have knowledge about current research outcomes, best practices, technology, language and child development, and resources for families and professionals. Professionals must be qualified, culturally responsive, and follow guidelines set by their professional organization (e.g. ASHA; CEC). Additionally,

- Qualified professionals should have specialized knowledge and training in working with children who are deaf and hard of hearing.
- Professionals must provide comprehensive and collaborative services.
- Evaluations and reports should be individualized and based on the most up to date, evidenced-based information.

Evaluators working with children who are deaf and hard of hearing need to intimately understand the impact of access to direct and incidental language on test results and be able to interpret the results with additional factors considered.

Professionals administering evaluation tools must be able to communicate in the student's native language or preferred mode of communication (IDEA 300.304 (c) (1), IDEA 303.25).

Deaf and hard of hearing individuals are considered a marginalized community.

Bilingual or multilingual children need to be evaluated by individuals who have training and/or certification in cultural and linguistic diversity and are aware of the IDEA guidelines for evaluating this population. Clinicians must strive to be culturally responsive to marginalized communities. Professionals should utilize resources in their area and around the state to meet the requirement of allowing direct communication with the examiner during an evaluation to optimize the accuracy of data gathered. If there are no options for direct communication between the evaluator and child, evaluators must be trained in using an interpreter for evaluations according to IDEA. To ensure that scores are most valid and reliable, interpreters must be trained in assessment tools and processes. For additional information regarding assessing English learners, visit https://www.in.gov/doe/files/IDOE-EL-Guidebook-2024-2025.pdf.

A multidisciplinary evaluation may include the following licensed personnel, as appropriate:

- American Sign Language or Visual Language specialist
- Behavior specialist
- Counselor
- Deaf mentor
- Educational audiologist or audiologist
- Educational diagnostician
- Educational interpreter
- General education teacher
- Listening and spoken language specialist
- Media and technology specialist
- Multiple disability specialist
- Occupational therapist
- Parents
- Physical therapist
- School district representative
- School psychologist
- School social worker
- Special education teacher
- Speech-language pathologist
- Student
- Teacher of students who are deaf or hard of hearing

Assessment Tools

IDEA requires professionals to use a variety of assessment tools, seek parent input, and use culturally and linguistically appropriate resources. Decisions should not be based on one type of evaluation tool. As stated in each testing manual regardless of the tool, evaluators should review

the test manual in its entirety and be familiar with test psychometric properties, measured skills, and limitations prior to administering any tool. Tools with poor psychometric properties should not be selected and if those tools are used, they should be paired with accurate evaluation measures. A sensitivity and specificity of lower than 80% is considered insufficient. Language sampling is considered the gold standard for communication evaluations. Tools that are commonly used with hearing children may not fit the individual needs of children that are deaf and hard of hearing.

Because children who are deaf and hard of hearing often lack access to incidental and direct academic language, consideration of individual subtest performance is required. Lack of complete access results in learning gaps that are not easily detected by norm-referenced testing. These learning gaps need to be identified to allow for remediation and development of literacy. Children who are deaf and hard of hearing with low average scores on norm-referenced testing should be considered at risk and receive supports to improve their skills.

There are multiple formal evaluation approaches that provide valuable information on a child's strengths, weaknesses, and areas of need. Multidisciplinary teams should strive to collaborate to select tools that will follow evidence-based practice, gather the needed information, and provide information that will drive educational planning. Examiners must consider a child's exposure to the tasks within a tool. If the child has not been exposed to expected skills (e.g., pointing to body parts, vocabulary, toys, etc.) such as children from other countries, internationally adopted children, or migrants, a process-oriented dynamic assessment must occur to observe how a child learns. Tools for evaluation can include:

- Norm-referenced testing
- Criterion-referenced testing
- Observations
- Parent rating scales, checklists, or interviews
- Rating scales
- Rubrics
- Checklists
- Dynamic assessment
- Play-based assessments

Progress Monitoring

Once a child has been assessed and found eligible for deaf and hard hearing special education services by a case conference committee, continued progress monitoring of student growth and skill development is necessary. Ongoing progress monitoring can catch lack of access and/or barriers to language development sooner and determine when a child is not making substantial progress to close the language gap between themselves and same-age peers. Professionals working with children who are deaf and hard of hearing can collaborate to ensure a child's language progress is being continuously monitored. This allows for flexibility in programming to

meet the child's access and language development needs, enabling the child to meet their optimum potential. Language deprivation can be prevented by providing children with full access to direct and incidental language in a variety of formats based on a child's needs. Any lack of progress or regression of skills should be concerning and addressed immediately with additional supports, accommodations, and/or programming changes.

The purpose of Indiana Code 20-35-12 Indiana Deaf Education and Assessments of Language (IDEAL), follows best-practice and national legislative trends to annually progress monitor language skills of children who are deaf or hard of hearing (please see special education law section of this resource for more information). The Center monitors language progress for young children in the CDHHE Network through the Early Childhood Assessment (ECA) initiative at 15, 23, and 29 months of age. If the child has participated in the ECA during early intervention, Center staff will contact school districts to gain further language progress monitoring information when a child reaches 44 months of age. The ECA gathers general developmental information using the *Developmental Assessment of Young Children, Second Edition (DAYC-2)* and vocabulary information using the *MacArthur-Bates Child Development Inventories (MBCDI).* For more advanced language users, the *Language Use Inventory (LUI)* is given at 30- and 44-months. School districts can request copies of these reports from the child's CDHHE network providers as part of a Part C to Part B transition evaluation.

IDEAL states that when language monitoring measures are given, they are required to be submitted to the IDEAL portal at https://eportal.isdh.in.gov/CDHHEAssessmentPortal/.

A detailed list of IDEAL tools and assessments can be found at https://www.in.gov/health/cdhhe/files/IDEAL-List-of-Tools-and-Assessments.pdf.

Available Resources

To support parents and professionals, The Center has created a variety of resources available for professionals, as well as information specifically for parents:

- IDEAL
  - https://www.in.gov/health/cdhhe/files/IDEALparentdocument-0221-min.pdf
  - https://www.in.gov/health/cdhhe/files/ASL-and-English-Milestones-The-Next-Steps.pdf
  - https://www.in.gov/health/cdhhe/files/IDEAL-ASL-and-English-Milestones-Checklist.pdf
- Other available resources available from the Center website:
  - https://www.in.gov/health/cdhhe/files/EXCEL2-language-access-series-clickable-links.pdf
  - https://www.in.gov/health/cdhhe/programsservices/audiology/#tab-690379-4-Tips__Tricks

- https://www.in.gov/health/cdhhe/files/Center-ASL-Skills-Checklist.pdf
- https://www.in.gov/health/cdhhe/files/Consideration-of-Special-Factors-fillable.docx
- https://www.in.gov/health/cdhhe/programsservices/deaf-education/#tab-690833-2-Guidance_Documents

Indiana state and nonprofit organizations providing services to children who are deaf and hard of hearing:

- State agencies
  - Early Hearing Detection and Intervention https://www.in.gov/health/mch/families/ehdi-early-hearing-detection-and-intervention
  - First Steps https://www.in.gov/fssa/firststeps/
  - Indiana Department of Education https://www.in.gov/doe/
- Schools
  - Indiana School for the Deaf https://www.deafhoosiers.com/
  - St. Joseph Hearing + Speech https://sjid.org
- Organizations
  - Hands & Voices https://www.inhandsandvoices.org/
  - Hear Indiana https://www.hearindiana.org/
  - Indiana Association of the Deaf https://www.iadhoosiers.org/
  - Indiana Deaf Children Foundation https://www.indianadeafchildrenfoundation.org/

Glossary

This glossary is included to provide clear definitions and descriptions of the terms used in the educational evaluation of children who are deaf and hard of hearing. Person first language used throughout this revised document per NDC, IDOH, and APA (the term "Deaf and Hard of Hearing Children" has now been changed to children who are deaf and hard of hearing). The Center acknowledges community preference is identity first. In accordance with the American Academy of Pediatrics (AAP) (Bower et al., 2023) terminology such as "loss," "failed," "impairment," etc., is removed to reflect that children who are deaf or hard of hearing are equal, healthy, and whole. When culturally and linguistically appropriate, the term elevated hearing thresholds may be used in place of hearing loss. The AAP stresses that the use of nonpathological terminology does not signify a change in the need for expeditious identification and care for children who are deaf and hard of hearing to reach their optimal potential.

Acoustic room treatment - The use of sound-absorbing materials (such as carpets and acoustic tile) to reduce room noise and reduce the signal-to-noise ratio
Acoustics - Pertaining to sound and how it travels in an environment
Air conduction (AC) - Sound from the air delivered through the ear canal, the eardrum and middle ear to the inner ear
Ambient noise - All noise in a given environment with the exclusion of the primary sound that the listener is paying attention to. Also known as background noise.
American Sign Language (ASL) - A visual-spatial language used in the United States and Canada. Unlike spoken languages, ASL relies on hand movement, facial expressions, and body language for communication. It has its own unique grammar, phonology, and syntax.
Amplification - Use of traditional hearing aids and other hearing devices to increase the loudness and improve the quality/clarity of sound
Asymmetrical hearing loss - Different degree and/or configuration of hearing thresholds/hearing loss in each ear.
Audiogram - Graph on which a person's hearing thresholds (quietest level at which a person just perceives a sound) are plotted for different frequencies (i.e. pitches)
Auditory-based intervention - Provided by a professional who utilizes specific listening and spoken language strategies to maximize a student's auditory skills to develop their spoken language.
Auditory neuropathy spectrum disorder (ANSD) - ANSD occurs when the ear successfully detects sound but prevents the sound from reaching the brain typically. People with ANSD may have trouble understanding speech, telling sounds apart, or hearing sounds that fade in and out. Children with ANSD may have hearing thresholds that fluctuate or worsen over time.
Aural (re)habilitation - Therapy that includes a variety of interventions to stimulate auditory pathways with the goal of developing spoken language.

Aural rehabilitation - "Rehabilitation" focuses on restoring a skill that is lost. In children, a skill may not be there in the first place, so it has to be taught -- hence, the services would be "habilitative," not "rehabilitative."(see aural habilitation)
Bicultural - Membership in two cultures, such as deaf culture and hearing culture
Bilateral - Refers to two sides (e.g. bilateral hearing loss)
Bilingual - Being fluent in two languages
Bilingual Bicultural Education (BiBi) - Programs that use sign language as the native, or first, language of children who are deaf. English, spoken and/or written, is viewed as a secondary language to be acquired at the same time as the native language. In BiBi education, sign language is the primary method of instruction. The bicultural aspect of BiBi education emphasizes deaf culture and strives to create confidence in students who are deaf by exposing them to the deaf community.
Bimodal - The use of a hearing aid in one ear and a cochlear implant on the other ear
Bone conduction - Stimulation of the inner ear through vibration of the bones of the skull
C-print - An in-person or virtual captioning technology service to provide communication access by a trained service provider employing condensing and summarizing strategies to make spoken messages more concise. Meaning-for-meaning translations are displayed on a computer screen.
Central auditory processing disorder (CAPD) or auditory processing disorder (APD) - Children with CAPD or APD do not process sounds the same way as other children their age. This disorder occurs in hearing children and includes struggles with auditory processing when hearing levels are 15 decibels or higher. In Indiana, children with CAPD/APD may qualify for special education services under other health impairment (OHI), not deaf and hard of hearing (DHH).
Classroom audio distribution system (CADS) - Also referred to as Soundfield System, designed to evenly distribute audio throughout a classroom. CADS systems use a microphone and speakers to amplify a speaker's voice above background noise.
Cochlear implant - A surgically implanted electronic device, which receives an acoustic signal from an external speech processor (worn on the outside of the head) and converts it to an electrical signal to stimulate the hearing nerve. The signal is sent to the brain and is then recognized as sound. This is an option for people who receive little to no benefit from hearing aids and communicate using spoken language and/or want access to auditory stimuli.
Communication access realtime translation (CART) - Also known as real-time captioning, involves a trained operator using a stenography machine and software to transcribe spoken content word-for-word. The resulting text is displayed on a computer, television, or projection screen, either onsite or remotely. The transcript is available after the lesson/session. It's a valuable service for people who are deaf or hard of hearing.
Conductive hearing loss - Occurs when sound is impeded in the outer ear canal to the eardrum and the tiny bones (ossicles) of the middle ear. This type of hearing status can sometimes be medically or surgically treated.
Congenital - Present at birth

Cued speech - Also referred to as Cued American English, a visual mode of communication in which mouth movements of spoken language combine with "cues" to make the sounds (phonemes) of traditional spoken languages look different. Cueing allows users who are deaf, hard of hearing or who have language/communication challenges to access the basic, fundamental properties of spoken languages through the use of vision.

Deaf - A cultural and linguistic term referring to individuals whose communication mode is visually based, such as American Sign Language (ASL). Vision plays a significant role in their understanding of information. The National Deaf Center recognizes that identity can be fluid, and they use the term 'deaf' inclusively to encompass various experiences, including deaf, deaf, deafblind, deaf disabled, hard of hearing, late deafened, and hearing impaired.

Deaf-Blind - Varying degrees of both hearing and vision loss; students should be reported to the Indiana Deaf-Blind Registry https://www.indbservices.org/ for additional services as this combination of losses limits access to auditory and visual information and creates unique challenges for communication and education. https://www.nationaldb.org/info-center/deaf-blindness-overview/ and https://www.indbservices.org/

Deaf Community - The community of people whose primary mode of communication is American Sign Language and who share a common identity and culture.

Decibel (dB) - The unit of measurement for the loudness of sound; the higher the dB, the louder the sound

Degree of hearing loss - Refers to the severity of elevated hearing levels. Seven categories are typically used:

- Normal range = -10 to 15 dB
- Slight loss/minimal range = 16 to 25 dB
- Mild range = 26 to 40 dB
- Moderate range = 41 to 55 dB
- Moderately severe range = 56 to 70 dB
- Severe range = 71 to 90 dB
- Profound range = 91 dB or more

Earmold - A custom-made earpiece that fits into the outer ear to transmit sound from a behind-the-ear hearing aid; earmolds may also be used to improve retention of other ear level devices.

Educational interpreter - Defined by Article 7, Rule 43, 511IAC 7-43-1 as individuals who provide sign language transliteration and interpreting services to deaf or hard of hearing students. These individuals must be certified to interpret in an educational setting. (**Oral interpreter -** A trained person who inaudibly mouths verbal communication to enhance understanding for individuals who read lips).

Elevated hearing thresholds - General term used to indicate that the quietest sounds an individual can hear are louder than what is considered to be the typical range of hearing.

Fingerspelling - Involves representing letters using hand gestures, often used in sign language. It bridges the gap between sign language and written language.

Fluctuating hearing levels - Hearing levels that are variable over time (hearing degree changes). This can be due to ear infection, earwax buildup, Meniere's disease, noise exposure, etc.

Frequency - The number of vibrations per second of a sound. Frequency, expressed in hertz (Hz), determines the pitch of sound

Hard of Hearing - A range of hearing levels in which access to sound may be improved by an auditory device

Hearing assistance technology (HAT) - Special devices used to improve listening in various environments often where the speaker uses a microphone to transmit sound directly to personal hearing technology. These devices also provide access to audio and visual technologies.

- **Assistive listening devices (ALDs) -** This is an older terminology to include all types of electronic systems including FM/DM systems, infrared systems, special input devices for telephone or television, amplified alarms and signals, etc.
- **DM system -** An assistive listening device that consists of a transmitter and receiver(s); the speaker's voice is transmitted using a digitally modulated (DM) signal to an electronic receiver worn by the listener or a speaker placed near the listener. The system reduces the negative effects of background noise, reverberation, and distance from the person wearing the transmitter. Previously referred to as an FM.
- **Remote microphone (RM)** - Hearing assistance technology consisting of a microphone worn by a speaker whose voice is transmitted wirelessly to a listener's personal hearing device (i.e. Bluetooth).

Hearing screening - Procedures designed to identify children in need of diagnostic hearing evaluations. According to IC 20-34-3, Sec. 14. (a) The governing body of each school corporation shall annually conduct an audiometer test or a similar test to determine the hearing efficiency of the following students: (1) Students in grade 1, grade 4, grade 7, and grade 10. (2) A student who has transferred into the school corporation. (3) A student who is suspected of having hearing defects. (b) A governing body may appoint the technicians and assistants necessary to perform the testing required under this section. (c) Records of all tests shall be made and continuously maintained by the school corporation to provide information that may assist in diagnosing and treating any student's auditory abnormality. However, diagnosis and treatment shall be performed only on recommendation of an Indiana physician who has examined the student. (d) The governing body may adopt rules for the administration of this section. https://www.in.gov/doe/files/Hearing-Law.pdf .

Inner ear - Part of the auditory pathway that consists of the hearing organ (*cochlea*) and balance organs (*vestibule, semicircular canals*). The hearing organ functions by using the mechanical movement received by the middle ear to stimulate the auditory nerve. This process converts sound to an electrical signal that can be processed by the brain. (See Sensorineural hearing loss).

Intensity - The loudness of a sound measured in decibels (dB)

Intervener - A trained person who facilitates one-on-one access to an individual who is deaf-blind to help them gather environmental information, develop and use communication and learning skills, and establish relationships.

Language - According to the American Speech-Language and Hearing Association (ASHA), language is a system of patterns and symbols used to communicate. It is defined as the comprehension and/or use of a spoken (e.g., English, Spanish), written (e.g., reading and writing), and/or signed (e.g., American Sign Language) communication system. In some cases, individuals may use augmentative and alternative communication (AAC) to replace or supplement spoken language.

Language facilitator - A special education assistant who adjusts academic and social language to the level of the student for improved access and understanding in the educational environment.

Listening and spoken language - According to the Alexander Graham Bell Association for the Deaf & Hard of Hearing, listening and spoken language is an approach to language development that teaches infants and young children with hearing loss to listen and talk with the support of hearing technology such as hearing aids, assistive listening devices (for example, an FM system) or cochlear implants. Hearing technology provides auditory stimulation and sets the stage for the development of listening while spoken language therapy teaches the child how to "listen" with the device and to translate what he or she is hearing into spoken language. Parents and caregivers that choose LSL receive counseling and support in their role as the child's most important teacher of language, learning how to stimulate their child's speech and language production.

Middle ear - Part of the auditory pathway that consists primarily of bones, muscles, and tissue. The most notable structures include the eardrum (*tympanic membrane*), the three ossicles or bones (*malleus, incus, stapes*). The function of these structures is to convert sound into the mechanical movement needed to stimulate the organ of the inner ear (*cochlea*). (See conductive hearing loss).

Mixed hearing loss - A combination of both conductive (outer and middle ear) and sensorineural (hearing organ and nerve) pathways are affected resulting in elevated hearing thresholds/hearing loss (See elevated hearing levels).

Otitis media - An infection caused by a virus or bacteria where fluid is often present in the space behind the eardrum (middle ear).

Otolaryngologist or ear, nose and throat specialist (ENT) - Physician trained in medical and surgical management of the ear, nose and throat and relate to structures of the head and neck.

Otologist - A physician who specializes in medical conditions of the ear

Residual hearing - Remaining amount of measurable hearing in an ear after a change in their previous hearing levels

Reverberation: Prolongation (echo) of a sound after the sound source has ceased

Sensorineural hearing loss - Elevated hearing thresholds defined by sensitivity of the hearing organ and nerve. Usually, medical and surgical intervention does not affect this type of hearing. Hearing devices may aid in access to sound. (see elevated hearing levels)

Signal-to-noise ratio - Intensity of the speech signal as compared to the intensity of the background noise
Single-sided deafness (SSD) - Hearing sensitivity in one ear is within normal limits and hearing sensitivity in the other ear is in the mildly to profoundly elevated range
Soundfield system – See classroom audio distribution system (CADS) definition
Speechreading: The use of visual cues that accompany verbal communication to understand an intended message
Speech intelligibility - The ability for one's speech to be understood by others
Speech perception - The ability to perceive differences between speech sounds
Speech recognition - The ability to correctly identify words, phrases, or sentences
Symmetrical hearing - Similar degree and/or configuration of hearing in each ear
Transcriptionist - The person who provides real-time captioning
Transition - Period of time during which 1) a child moves from Part C (Early Intervention) to Part B (school-aged) services 2) coordinated activities and services to prepare a student for school exit that begins the school year in which the child turns 14.
TypeWell - A system for capturing spoken content and environmental sounds into text. TypeWell can provide real-time meaning-for-meaning or verbatim text either in-person or virtually.
Unilateral - Refers to one side (e.g. unilateral hearing loss)

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Appendix I – Special Education Flowchart

Students with diagnosed disabilities in need of accommodations within the educational environment are eligible for a 504. Review available data to determine if a referral for special education is appropriate. Data may include information from a parent, physician, audiologist, and/or school staff.