

The Colorado School for the Deaf and the Blind Outreach Department



*Learning
Thriving
Leading*

Psychological Assessment Practice with Students who are Deaf or Hard of Hearing (D/HH): Frequently Asked Questions (FAQs)

Developed by: Laura Douglas, Ph.D.; Angie Lawson, Ph.D.; Carol Mauermann, Psy.S.; Aaron Rosenthal, M.A., CAGS; Robin Santa-Teresa, Psy.D.

COGNITIVE ASSESSMENTS:

Which assessment tools are best to utilize in assessing the cognitive functioning of a student who has an educationally significant hearing loss?

The choice of tool depends on multiple factors. Due to hearing loss, Verbal scales measure something different in hearing and deaf or hard of hearing children. Any hearing loss will affect the amount and quality of information processed through the auditory channel. In some cases, Verbal scales may be given as a measure of learned information. The following assessments tools are often used with deaf and hard of hearing children and adolescents:

- Universal Nonverbal Intelligence Test (UNIT)
- Wechsler Intelligence Scale for Children – Fourth Edition (WISC-IV), Nonverbal based subtests
- Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV), Nonverbal based subtests
- Leiter International Performance Scale, Revised (Leiter-R)
- Differential Ability Scales, Second Edition (DAS-II), Nonverbal Scale
- Kaufman Assessment Battery for Children, Second Edition (KABC-II), Nonverbal Scale
- Woodcock Johnson – III Tests of Cognitive Skills (WJ-III COG), Select subtests
- Mullen Scales of Early Learning (MSEL)
- Bayley Scales of Infant Development, Third Edition (BSID-III)

Which assessment tools are not ideal for assessing the cognitive functioning of a child who is deaf or hard of hearing?

- Wechsler Preschool and Primary Scale of Intelligence, Third Edition (WPPSI-III)

- This assessment battery is highly dependent on language, and the subtests can be hard to administer due to difficulty in keeping the attention of the child.
- Comprehensive Test of Nonverbal Intelligence, Third Edition (CTONI-3) and/or Test of Nonverbal Intelligence, Fourth Edition (TONI-4)
 - The scores from these assessments tend to be inflated. However, this assessment should not be completely ruled out, as it can provide useful data when a student's performances on other cognitive tests are inconsistent.
- Stanford-Binet Intelligence Scales, Fifth Edition (SB5)
 - This test is highly language loaded even on the nonverbal scales.
- Raven's Progressive Matrices and the Hiskey-Nebraska Test of Learning Aptitude (H-NTLA)
 - Both of these assessments are out of date.

Are there differences in the way an assessment plan should be developed for a student who communicates verbally versus a student who uses sign language?

Yes. Depending on a student's verbal abilities, administration of verbally based subtests can be appropriate for diagnostic purposes. Often, the specific scores should not be reported, but the information obtained can be beneficial. It is important to note the results should not be perceived as a measure of verbal cognitive skills because of the impact hearing loss has on language acquisition. A measure of a student's verbal skills may be helpful when the student is competing in a classroom of hearing peers to provide information to the teacher about any delays the student may have in verbal abilities.

What assessment strategies provide the most valid and reliable assessment of cognitive abilities with students who use sign language as their primary mode of communication?

For evaluators who have limited knowledge and experience working with children and youth who have hearing losses, there are several ways to access detailed information about appropriate assessment practices to increase the validity and reliability of the assessment. As is always best practice, consulting with professionals who do have experience and knowledge in the field of deaf education is highly recommended. School psychologists who work at the Colorado School for the Deaf and the Blind are available to provide consultation and can be contacted through the CSDB website (www.csdb.org). Other references and sources of information can be found at the end of this document.

Considerations for children aged birth to 5:

While it may be helpful to obtain an estimated cognitive level on a child under the age of 5, the validity of cognitive batteries administered for this age group is questionable. There is limited predictability of standard scores for children under the age of 7, and scores obtained should be considered with great caution. However, information gathered from such assessments can be used to guide intervention development.

Considerations for students in K – 12:

- If the student's primary language is sign language, then the assessment administrator should ideally match the child's mode of communication (e.g., Signed Exact English, Pidgin Signed English, or American Sign Language). If a sign language interpreter is used, the interpreter will need to be trained in basic psychological assessment practices to understand the interpreter's role in the assessment session. The interpreter will need to know the parameters related to their translation of information and the importance of following standardization protocol in giving directions and interpreting the responses of the students. Utilization of an interpreter may have a negative impact on standardization and rapport building. Many younger students do not know how to appropriately use an interpreter in an assessment setting.
- Utilize the amplification device the student typically uses in the classroom or other settings when administering assessments (e.g., hearing aid, FM system or cochlear implant).
- Become familiar with the student personally prior to undertaking the evaluation. Often students do not know the reason they are being taken out of the class and why their routine is being altered. If the student is familiar with the evaluator, the student is more likely to adapt well to the assessment environment.
- Have familiarity with "testing-of-limits" procedures and additional "teaching-of-task" requirements, so these techniques can be utilized if the student does not initially understand what is required. While these practices break standardization and may make the obtained scores unreliable and/or invalid, students who are deaf or hard of hearing sometimes need additional explanation, teaching, and practice to understand the task requirements. If the student is then able to correctly respond to test items, the diagnostic information about the student's abilities, ideas for accommodations, recommendations, and/or modifications may be very helpful information for the evaluator. The same is true for a student who does not respond well despite additional opportunities for learning the task requirements.

When is it appropriate to conduct a cognitive assessment with a child who is deaf or hard of hearing?

When the IEP team believes there is likely to be beneficial information obtained that can be utilized in developing a more appropriate educational program, information obtained through an assessment of cognitive abilities may provide valuable information.

What adaptations or accommodations are recommended for a standardized assessment with a student who has a significant hearing loss?

- Limit visual distractions. Because children who are deaf or hard of hearing are so reliant on visual information for making sense of their world, they are more likely to be distracted by things happening within their visual periphery.
- Make sure to have optimal seating conditions to allow good eye contact.

- Make sure your mouth is not covered when you talk and speak directly to the child. Do not exaggerate movements of your mouth or facial expressions.
- If the evaluator has a beard or moustache, it should be trimmed and not obstruct the student's ability to speech read.
- If the evaluator knows sign language, make sure the sign is known by the student. For example, show the child a block from the Block Design subtest and ask him or her to identify the object. Use the child's preferred sign or teach him/her the sign for block.
- If the evaluator uses techniques that are not included in the standardization of the test battery, be sure to report what was done along with the possible implications. Because standardized assessments are typically not normed on individuals who are deaf or hard of hearing, the obtained results are a comparison to a hearing norm group.

If a student uses a cochlear implant or hearing aids and communicates verbally, what assessment strategies should be used?

- Consult with the audiologist, speech/language pathologist and/or teacher of the deaf to make sure the hearing aids or cochlear implant is functioning properly.
- Find out how long the child has been using amplification and his/her ability to appropriately maintain the amplification device.
- Gather information about the student's use of his or her cochlear implant or hearing aid. Some students may turn off hearing aids or take off their cochlear implant in certain situations.
- Make sure the room used for the assessment is quiet or without a lot of auditory distractions (i.e., white noise, loud heating units, constant hallway noise etc.).
- It may be beneficial to learn more about the child's language abilities from the teacher and/or speech language pathologist prior to undertaking the evaluation. This information may lend itself to choosing one test over another and/or heighten the evaluator's awareness of specific things related to the child's auditory and language skills.

Should a full scale IQ for a student who is profoundly deaf be reported when interpreting the results of an assessment?

The answer will almost always be "no." For a child who is profoundly deaf, the impact of hearing loss on language acquisition is very significant. Therefore, if a full scale battery is administered, including verbally based subtests, reporting the verbal and full scale scores is inappropriate as it implies the scores are a measure of the student's cognitive abilities, rather than exposure to language.

An exception to reporting a "full scale" score is on the UNIT as all subtests are administered in a nonverbal format.

Can a child who is deaf or hard of hearing have an additional disability?

Absolutely. In fact the frequency of having a diagnosed disability in addition to hearing loss has increased in recent years. This is due in large part to improved medical technologies have allowed premature babies and babies with significant medical challenges to survive. Deaf children can certainly have other physical disabilities, learning disabilities, cognitive disabilities, and emotional disabilities. Sometimes it can be a challenge for educational teams to determine a primary educational disability when a child who is deaf or hard of hearing presents with other educational disabilities.

How does one determine if a student who is deaf or hard of hearing also has a learning disability?

- It is important to know that in the Response to Intervention (RTI) “world,” the eligibility of hearing loss as a disability should follow the Colorado Department of Education’s Exceptional Children’s Education Act (ECEA) in identifying a student with a hearing loss as an educational disability. No interventions need to be tried before a child is identified with an educational disability in the area of deafness.
- The field of learning disability identification in deafness is an evolving art. There are still many controversies, and differing legal views depending on which state the student resides in.
- This is another assessment area a person with extensive knowledge in deafness should be asked to assist in conducting the assessment to make this differential diagnosis.
- After a child with a hearing loss is identified as having a hearing loss and the appropriate educational accommodations have been in place (e.g., FM systems in the classroom, hearing aids, instructional accommodations, etc.), an RTI approach can be useful to determine if a learning disability is present, when suspected.

How do we differentiate between typical student who are deaf or hard of hearing and those exhibiting additional learning disabilities?

- Examiners who evaluate students who are deaf or hard of hearing must have knowledge of academic progress that is typically seen in learners who are deaf or hard of hearing. There are specific patterns of growth given the delayed language acquisition that is typically present in this population.
- Students who are deaf or hard of hearing do typically present with characteristics that impact their learning, but are not considered a learning disability.
- Hearing loss alone is not necessarily accompanied by the following difficulties:
 - Visual-perceptual problems
 - Attention deficits
 - Perceptual-motor difficulties
 - Severe inability to learn vocabulary and English structures
 - Consistent retention and memory problems

- Distractive behaviors
- Emotional factors

How do you determine if a student who is deaf or hard of hearing might also be eligible for services for students who are gifted?

Because criteria for gifted programs vary from state to state and district to district, a specific answer to this question is not possible.

Due to the impact of hearing loss on language however, lower language scores and skills in and of themselves should not prevent a student for consideration for gifted and talented programs.

How do you determine that a student who is deaf or hard of hearing might also have an attention deficit hyperactivity disorder (ADHD) or an attention deficit disorder (ADD)?

While a child with a hearing loss can have ADD/ADHD, there are many other variables that must be considered including the child's history and exposure to accessible language.

- It is important to note that many students with hearing loss without ADD/ADHD may show ADD/ADHD-like characteristics due to trying to understand their environment, communication difficulties, etc. Children who do not have a strong language base may look more impulsive. They may not have that "inner voice" that tells them to stop, wait, make decisions that hearing children develop, in part, from adult models who communicate this to them verbally. Examples may include:
 - A child who frequently looks away from the teacher or interpreter to gain information visually about his/her environment
 - The student with limited language who frequently gets out of his/her seat to get something or point to something of interest as a means of communicative intent.
- This is another area in which individuals with extensive expertise in deafness should be consulted.

How do you determine if a student who is deaf or hard of hearing also has an autism spectrum disorder?

This type of assessment should be completed by or with an evaluator who is an expert in deafness/hearing loss. Briefly, one would gather a comprehensive history, with questions specific to deafness or hearing loss as well as behaviors associated with an autism spectrum disorder. In addition, one would also utilize tools specific to autism (e.g., Autism Screening Checklist), ensuring these tools are completed by a person(s) very familiar with the student's behaviors and interactional style.

How do you assess a student who acquired language late in life or has no primary language?

Administer tests that are as language and culture free as possible, which includes the UNIT and Leiter- R.

Be sure to gather a comprehensive history of exposure to language so that you can report how the child's history may have impacted his or her behaviors and performance on the assessment.

Should I use an interpreter when assessing a deaf child who uses sign language?

Ideally, no. If there is not an alternative, you should first determine if the child knows how to adequately use an interpreter. If an interpreter is used, s/he should be instructed on the importance of test standardization, expectations on how to interpret the test items to the child, and the importance of accurate reverse interpreting to the evaluator.

- Does the child use an interpreter?
- **Do not** use mom, teacher, sibling for the interpreter

What is “best practice” when an adult services agency requires an IQ score for determining eligibility for services when a student has a significant hearing and vision loss?

Deaf/Blind is considered a multiple disability in the educational realm. It is the only “multiple disability” in Colorado (and many other states?) that does not require a student to also have a documented cognitive disability. Because of the extreme challenges in undertaking a cognitive evaluation with an individual who is deaf/blind and the lack of norms, administration of a cognitive battery should not be required. An explanation to the adult services agency, along with any supporting documentation related to the person's current level of functioning in academic, language, and adaptive behavior skills may prove sufficient to the agency.

How do you appropriately assess the cognitive abilities of a student who is deaf or hard of hearing and comes from a family that does not use English as their primary language?

Once again, utilization of cognitive batteries, such as the UNIT, that are as language and culture free as possible, is recommended.

The bottom line is this: because the child is already diagnosed with a hearing loss, s/he qualifies for special education services. The educational team may not be able to undertake appropriate evaluations in a number of areas depending on the child's skill levels. If this is the case, the IEP team should qualify the child as having a hearing disability. Because Colorado is a “Needs Based” state, educational services and goals and objectives should be developed around the student's educational needs, and not only around specific areas of special education eligibility.

SOCIAL-EMOTIONAL ASSESSMENTS:

Which assessment strategies are best when determining the social-emotional functioning of a student who is deaf or hard of hearing?

With these types of assessments, it is recommended to consult with or involve a professional who has extensive knowledge of assessment with individuals who are deaf or hard of hearing.

Teacher and parent checklists, such as the BASC-2 and Social Skills Rating Scale, are useful when gathering information about a student's social emotional functioning.

Caution needs to be utilized when interpreting any of these tests because of the impact the child's hearing loss has on the responses to a number of questions. Thus, the scores may be inflated. You can look over the checklist and flag any questions that may need further explanation to the parents and/or teachers. For example, the question may say "speak/spoken" but is looking for expressed language, which could be spoken or signed. Clarifying this for the parents and teachers helps to get more accurate information on the child's behavior. One example is "listens well." on the BASC-2. This should be interpreted to mean, "Does the child attend to accessible communication?" This is the same for "pays attention when being spoken to."

Also, when interpreting results, item analyses may need to be conducted for some questions. An example is "Hears sounds that are not there." from the BASC-2. If this is marked, it is important to follow-up on this question to clarify. Another one could be "Writes messages that are unclear or incorrect."

If the statements on the BASC are read to the child on the Self-Report, this breaks standardization. The results can still provide interesting diagnostic information related to the child's perception of his behaviors, but the specific scores should not be listed in a report. In addition, any break from standardization should be reported in the write-up.

Are standardized social emotional "tests" valid with students who are deaf or hard of hearing?

Projective tests should not be used by individuals who do not have an extensive background, training and experience in working with individuals who have hearing losses. If a mental illness is suspected, a referral should be made to those professionals who have an extensive background in working with children and youth who have hearing losses.

References:

- Cawthon, S.W. and Wurtz, K.A. (2009). Alternate assessment use with students who are deaf or hard of hearing: An exploratory mixed-methods analysis of portfolio, checklists, and out-of-level test formats. *Journal of Deaf Studies and Deaf Education*, 14(2), 155-177.
- Gallaudet Research Institute (November 2008). *Regional and National Summary Report of Data from the 2007-08 Annual Survey of Deaf and Hard of Hearing Children and Youth*. Washington, DC: GRI, Gallaudet University.
- Hindley, P. and Kroll, L. (1998). Theoretical and Epidemiological Aspects of Attention Deficit and Overactivity in Deaf Children. *Journal of Deaf Studies and Deaf Education*, 3(1), 64-72.
- Marschark, M. and Spencer, P. E. (2003). *Oxford Handbook of Deaf Studies, Language, and Education*. New York: Oxford University Press, Inc.
- Mauk, G.W. and Mauk, P.P. (1998). Considerations, Conceptualizations, and Challenges in the Study of Concomitant Learning Disabilities Among Children and Adolescents Who Are Deaf or Hard of Hearing. *Journal of Deaf Studies and Deaf Education*, 3(1), 15-34.
- Morgan, A. and Vernon, M. (1994). Guide to the Diagnosis of Learning Disabilities in Deaf and Hard-of-Hearing Children and Adults. *American Annals of the Deaf*, 139(3), 358-370.
- Pollack, B.J. (1997). *Educating Children Who Are Deaf or Hard of Hearing: Additional Learning Problems* (ERIC Digest #E548). Retrieved from <http://www.eric.ed.gov/PDFS/ED414666.pdf>.
- Vuuren, E.V. (1995). *The Deaf Pupil with Learning Disabilities* (ERIC Digest #392177). Retrieved from <http://www.eric.ed.gov/PDFS/ED392177.pdf>.