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Ethical and Accurate Psychological Assessments of Deaf and Hard of Hearing Children

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Intro:

- UCR 2 yrs, CSUN graduate BA in Deaf studies and psychology; Ph.D. at Gallaudet University; Credentialed School Psychologist, Behavior Intervention Case Manager, and Clear Credential in Administration; worked at CSDF, St. Johns Hospital in Santa Monica; now at CSDR for last 17 years. Supervise 2 departments: Assessment and CDERC.
- We only have a short time today and I have a big topic: assessment of Deaf and Hard of Hearing children. I will tell you now – I will not get through it all. Which is why I have the QR handout for you. The QR code will give you access to a google file with multiple documents related to this topic; including my notes and this PP.

Language deprivation occurs due to a chronic lack of full access to a natural language during the critical period of language acquisition (when there is an elevated neurological sensitivity for language development), approximately the first 5 years of a child's life.

Why am I starting with this definition?

- Because for Deaf students, psychologists must understand that access to language and language development is an important part of the clinical presentation of children and adolescents. This make determining diagnoses more challenging.

Research shows that:

- Language deprivation during the critical periods appears to have permanent consequences for long-term neurological development (11)
- Neurological development can be altered to the extent that a Deaf child may be unable to develop language skills sufficient to support fluent communication or serve as a basis for further learning (12)
- Exposure to a fully accessible language has an independent influence on brain development separate from the auditory experience of hearing loss. Indeed, recent neuro-imaging studies indicate the presence of adult neurostructural difference in deaf people based on timing and quality of language access in early childhood (13-15).
- We know that hearing aids and cochlear implants do not guarantee positive language outcomes (16). Longitudinal studies show significant variability in cochlear implant related outcomes when ASL is not used (17).
- Despite ample research to show that ASL is a formal language with its own grammar and linguistic rules, less than 8% of Deaf children receive regular access to sign language in the home (23, 8).
- Although using ASL is encouraged for hearing babies to develop language skills before they can begin to speak, ASL is not routinely offered as a primary or complementary intervention

for Deaf children; rather, if offered at all, it is often proposed as a last-resort option to Deaf children who have not developed speech abilities as expected (24)

- This pattern occurs because many advocates, professionals, and educators believe that ASL acquisition will interfere with a Deaf child's development of speech skills (25,26) despite research showing that signing implanted children actually demonstrate better speech skills, language development and intelligence scores than non-signing children (20, 27, 28)
- Based on current research, technological intervention alone (i.e., HAs, CIs) are insufficient as a stand-alone approach for language acquisition in Deaf children.
- Paired with delayed or absent exposure to ASL during the critical period of language acquisition, a Deaf child can be at risk for experiencing long-term language deprivation – which leads to a spectrum of neurological, educational and developmental consequences across the lifespan

Language dysfluency and client presentation

- Languages (auditory or visual) have rules and structures that make them languages; language dysfluency is a disruption of these rules and structures
- In Deaf children with dysfluency this may look like limited vocabulary, lack of time referents, inaccurate spatial organization, and a lack of syntax; vocabulary may be more “concrete” and limited to actions and descriptions (the child / adolescent) has experienced directly. (38)
- Time markers (i.e., day, week, month, year) may be missing
- As a three-dimensional visual language, ASL relies heavily on spatial organization and locations as part of its grammar. A child with dysfluency may confuse this grammatical construct. For example, student describes their house in one location then does not refer to it again and subsequently reused that same spatial location for a different house in the same conversation (a violation of ASL grammar) causes confusion for the psychologist who does not understand Deaf people and the long term impact of language deprivation.

Fund of knowledge deficits

- Fund of knowledge deficits are best described as gaps in knowledge due to an accumulate lack of environmental information or incidental learning (57). We understand that normal acquisition of passive information is made through media, radio, newspapers, TV, and word of mouth – avenues typically not accessible to Deaf and Hard of Hearing individuals.
- This consistent lack of exposure to everyday opportunities results in an overall loss of understanding of how many aspects of society functioning, such as school interactions (when they are not in a larger program with Deaf peers), government functions, personal behaviors, etc. This can have a long term impact on a Deaf child's physical, mental and social health

So, why do I explain all of this?

- We know that Deaf individuals do generally appear to be at a heightened risk for various psychological conditions, but this is not necessarily a direct result of the hearing loss. (The reasons for this is another lecture altogether – Audism, exploitation, etiology of hearing loss, etc.)

- Rather the risk for secondary or tertiary diagnoses seems more magnified due to language deprivation (which is a rarity in the hearing population).
- To accurately assess Deaf and Hard of Hearing children you **must** understand this construct (language deprivation)! And you **must** take into consideration the ramifications of educational audism that still exists.

How do we make a diagnosis?

- Goal: Rule out the impact of Language Deprivation and then the diagnosis will be more clear
- Our approach specifically takes into consideration access to language and makes recommendations for intervention along the way
- A good psychologist will give you an accurate diagnosis. **But** they will tell you – this is the **starting point**. It takes an entire team to provide the intervention that focuses on the symptoms.

National Association of School Psychologists: Requirements for competence

Basics: Rules of thumb!

- There are no current tests normed on the deaf (used to be but the etiology of hearing level changes so much through the years that the norming samples never remains representative of the population so it is not possible to maintain a norming group; also more and more tests are now including Deaf and Hard of hearing kids in their norming sample in numbers proportionate to the population); this question **still** comes up constantly in court
- When interpreting not normed test results, essential to be aware of the child's entire environment (home and school) and how it may impact their performance on that particular test (see our model).
- If the Deaf child has had infrequent access to communication, all interpretation of test results and observations must take this into consideration!
- For example, on social emotional tests like the Behavioral Assessment Scales for Children (BASC), interpreting results requires special consideration. Be careful not to interpret results from a "hearing culture" perspective. For example, an individual with symptoms of anxiety and depression may not be depressed or anxious *because* they are deaf. Unfortunately, many assessors who are not knowledgeable for the deaf tend to attribute negative psychological functioning to the hearing loss or the individual's struggles with accepting their deafness.
- It's essential to have knowledge regarding the child's culture and daily struggles.
- The issues relevant to many deaf children are similar issues that appear among ESL learners.

Keep in mind!

- Assessment of cognitive abilities is essential for differential diagnosis in educational setting (Braden, 2001);
- Recent trends in special education have sought to sever the link between eligibility category and services provided so that educational placement and services are provided based on the child's response to instruction and services rather than diagnostic criteria (the goal is often to reduce the need for specialized testing and replace it with more frequent interim curriculum based assessments, but with deaf students these tools are difficult to design and validate, at present many often miss the mark for our kids)
- What we are seeing is that access to / eligibility for services depends more and more on hearing level; HH kids often fall through the crack whereas profoundly Deaf kids (with or without CIs etc) are quickly moved into programs
- These children in the "gray" space then continue to fall through the crack and do not always get the services they need
- What happens is later – assessment is required to figure out what is impeding learning – the hearing level or an additional disability
- In reality, is there a benefit to diagnosing deaf children with additional disabilities? Will this lead to a change in services? We think, yes and yes, it should.
- Diagnostic criteria are often sufficient for most DSM V disorders; but learning disabilities are more tenuous and difficult to define

Introduction to Model

- **DHH kids are a unique population because of the complex impact of language acquisition and deprivation.**
- There is much debate about when language deprivation begins. We might argue that the moment a child is born they have a right to language exposure and when that is not available to them, they are deprived (even if not due to malice).
- Understand that when a deaf (or hard of hearing child) is not looking at a specific person they are not acquiring information. The minute a DHH person looks away, their access to information is gone. One study separated children from Deaf families who were exposed to ASL from birth and those from hearing families who did not start learning signs until age 3. Those children from Deaf families had to be brought back to task (get their attention) 30 times in the given time allocation whereas deaf children from hearing families needed double that. Deaf children from deaf families were able to track a conversation / story more efficiently as well and only had to be reminded 2 times compared to deaf from hearing families who needed 33 times more reminders. Researchers suggested that 1) Deaf children from hearing

families were already suffering from language deprivation because they did not have the foundational skills needed to attend to and track a conversation.

- The **ONLY** way to do ethically appropriate evaluations of DHH children is to really understand the complexities of language acquisition and deprivation and to take that into consideration as we *interpret* data.

Why is understanding language KEY?

- Availability of clear and accessible communication within the home
- Bat-Chava (1993) did a meta-analysis of 42 studies; found that predictors of self-esteem were parents' attitudes towards deafness
- Is the child identified with others within the deaf community

Our Model – Deaf Centered

- **Why?**
- We will always advocate for access. **We believe strongly that being deaf is not about hearing, but about communication. To communicate requires full access to language** (P. Ogden & D. Smith – the Silent Garden).
- We do believe that even though not all deaf and hard of hearing children have a Deaf identity, **their connection to the Deaf community tells us a lot about their experience as a person with a hearing level in a hearing world. The fact is, the more a person with a hearing level tries to “overcome” or “cure” their hearing loss – the more they have internalized a perspective that their lack of hearing is pathological. But we know from experience that coping with a life-changing event (such as giving birth to a deaf child) can enlarge and refine one’s values. As the deaf child becomes the Deaf adult who explores their own identity we hope that the members of their hearing world can expand their lens through which they view and judge the world.**

Language Deprived VS Language Enriched

- Again, certainly there is debate about when language deprivation begins or to what extent, severe deprivation may occur depending on the fluency of the language models in the environment. The fact is it is NOT a black and white issue in most cases (some).
- For the purposes of assessment, we view a child who demonstrates age appropriate language skills in English AND ASL as language enriched. If you have questions about what are age appropriate skills for ASL, SB210 just released research-based Language Milestones for Deaf and Hard of Hearing children. <http://www.cde.ca.gov/sp/ss/dh/sb210langmilestones.asp>
- We view a child who does not demonstrate age appropriate language skills in English AND ASL due to *lack of or limited access* to both English and ASL.

- We also consider a child language deprived if the only fluent language models they have are at school. We would never consider it acceptable for a hearing child to have access to language for only 8 hours a day and then not push parents to own part of the responsibility for the other 16 hours; why should this be acceptable for deaf children?
- Again, dysfluency this may look like limited vocabulary, lack of time markers (i.e., day, week, month, year), inaccurate spatial organization, and a lack of syntax; vocabulary may be more “concrete” and limited to actions and descriptions (the child / adolescent) has experienced directly. (38)

Background information

- *Etiology* is so important for us to understand. It changes from generation to generation. Anti-vaxxers are bringing back Rubella, which was a huge cause for Deafness in the 60s. Etiology / grief / late deafened /family dynamics / communication style: Etiology sometimes can have comorbidity (e.g., Usher’s Syndrome, CHARGE, meningitis, rubella, etc.). Need to ensure support for comorbid condition. Parent /family acceptance of deafness (or lack thereof) can sometimes be a barrier to receiving services. Some kids may feel uncomfortable using hearing aids or signing in public if they don’t feel supported by their family.
- *Medical history*: What medical interventions have been provided? What has worked? What hasn’t? Need to be careful to ensure that there is a balance between how much medical intervention is provided vs. opportunities for the child to grow up like a normal child. Understand that the medical community has been taught that implants and medical devices are the way to go, but they do not provide the follow up services to track the effectiveness of the medical devices/implants. What we’ve seen is that even though insurances are happy to cover the cost of implants, we are finding that many of our clients do not have access to follow up services which makes the device useless.
- Use of *hearing aids* / CI / Bahas etc

Grief / Family Dynamics

- We recognize that parents grieve; this is expected. Even in families where a language rich environment is provided, grief can occur. Our job is to recognize it and give validation to it so that family members can move on. Prolonged grief becomes a barrier to future success. This is all part of understanding family dynamics.
- Family dynamics -we want to be clear that the family history is crucial -their approach to childrearing has weight, but the adjustment to the new experience of raising a deaf child is substantial.

Language access at home

- How do they communicate with their child? Some families come up with an elaborate gestural system of communication ranging to nothing at all.
- Research shows that children who have access to language at home have high self-esteem and better problem solving skills (cognition)
- Access to language also gives opportunities for incidental learning

Language access in educational setting

- Least Restrictive Environment/ Language Rich Environment
- Placement issues / educational options: What is their classroom placement? SDC? SHC? D/HH program? Regular classroom with interpreter? CART? Notetaker? Is the placement appropriate? Is the child getting what they need? Is the child capable of self-advocating when needed? If not, what can be added to the classroom to meet their needs? Are there better options for placement/programming in their district? Is a residential school placement available?
- Need for assistive devices at school and home (FMs, hearing aids, implants, VPs, live captioning, interpreters)
- Interventions available in environment?
- Mental health needs coexisting with educational needs?

Need more resources via Deaf community?

- Regardless of philosophy, more resources, more connectedness to a community is important

Language Intervention

- a given regardless of outcome of psych assessment

Assessing the child's current functioning in the current environment

- To get an authentic picture of the child and their functioning, the following needs to be included in the Psychological report:
- **Background Information / Current Status:** interview parents, observing child in classroom, data collection (background questionnaires, teacher questionnaires, self report questionnaires where appropriate); developmental history, medical history; current meds

- **Educational history:** How old were they when they first began school? What types of programs did they attend? What accommodations and services did they get in these settings? Were these services/accommodations consistent and sufficient? Were there any gaps in their education? Did they have excessive absences?
- **Language Development/Skills:** both English and ASL. What languages do they speak or have access to? What is the quality of their language use? Is it fluent? Is it more SEE like? ASL like? Cued Speech? Break down their language skills – expressive skills? Receptive skills? Are they commensurate? If ASL, discuss their markers (hs, movement, location, palm orientation, and facial expressions). Are they able to communicate at an abstract level or do they communicate at the concrete level? Use of pragmatics?
- **Audiological / Speech Information:** (when relevant) What type of hearing level do they have? Etiology? Progressive? For hard of hearing kids, what is their **functional** hearing? What is their hearing like in noisy environments? Quiet environments? (Remember, even with hearing aids and cochlear implants, optimal hearing happens only within a 3-6 feet bubble). Speech- if the child receives speech services, what type of speech services? Do the speech goals on their IEP focus on articulation? Language? Basically what kind of support are they getting?
- **Mental Health History: (when relevant)** If the child has a diagnosis, who provided the assessment? What is their experience/training with DHH kids? Does the psychologist understand the DHH population's unique needs? How was the evaluation conducted? Interview with the parents? Teachers? Child? Were interpreters used? Quality of examiner's sign skills if interpreter wasn't used? Qualifications of the interpreters involved? Is there a possibility of misdiagnosis?
- **Previous Assessments:** See above

Validity: statement on validity / procedures used in testing

- **Current Assessment:** procedures (what tests are administered) and interpretation; Interpreting the data as a whole (e.g., not just child is behind in language functioning therefore = disorder)

Intervention / Transition = Recommendations:

- Based on data from multiple sources
- Identify strengths and weakness
- Identify additional disabilities (or referrals for R/Os)
- Individualized!
- A good psychologist will give you an accurate diagnosis. **But** they will tell you – this is the **starting point**. It takes an entire team to provide the intervention that focuses on the **symptoms**.

Factors for Test Interpretation

Things to keep in mind when interpreting test results and writing the report:

- Is hearing level mentioned in the report?
- **Construct-irrelevant variance:** reflects the degree to which a test measures something that is not supposed to be measured.
- **Construct underrepresentation:** occurs when tests do not adequately sample the construct intended.
- Most clinicians attempt to reduce or eliminate construct-irrelevant variance when assessing deaf people's cognitive abilities; most often by eliminating language loaded directions and content items (and too often assuming that ASL is a nonverbal task and not recognizing that there is lots of research that proves it is a language and processed by the brain like a language to native users). Unfortunately, in doing so, many commit the other error of construct underrepresentation.
- Clinicians should seek to eliminate construct-irrelevant variance and retain construct representation when selecting accommodations.

Quick Check

- You might be thinking: does language deprivation really impact interpretation?
- My answer is YES.
- D/HH students may display characteristics (delayed academic and language skills) that impact their learning, but is not considered a learning disability.
- D/HH students MAY display ADHD-like characteristics possibly due to their lack of access to classroom instruction and frustration.
- Hearing loss alone is not necessarily accompanied by the following difficulties:
 - Visual-perceptual and/or motor difficulties
 - Attention deficits
 - Severe inability to learn English vocabulary and grammar
 - Consistent retention and memory problems
 - Lack of eye contact and/or delayed social communication

Areas of learning most likely impacted by hearing loss – think about this when doing a records review!

- Noise and distance are just as much a barrier to a student with a hearing loss as a narrow doorway is to a student in a wheelchair
- Inability to completely perceive speech sounds in typical school conditions has a HUGE impact
- Vocabulary gaps due to decreased ability to overhear incidental language
- Understanding syntax rules (can't hear /s/ so don't understand plurals, possessives)

- Early reading (phonology / phonemic awareness issues related to not distinctly hearing speech sounds)
- Understanding intent / emotions of others
- Viewing information from different perspectives
- Immature listening skills (discrimination of sounds to comprehension of conversation or verbal instruction)
- Language processing issues due to fragmented hearing, vocabulary gaps, syntax, listening rate, etc
- Social language use (socially awkward around hearing peers due to delays in pragmatic language development)
- Periodical inattention due to listening fatigue and gaps in understanding
- Passive or immature skills in responding when they do not understand what was said
- Understanding group discussions or participating in small group work due to distance / noise

Case Examples:

“Alex”

17yo

Dx at age 3; fitted with HAs; placed in mainstream classes without supports

ASL was introduced at age 15

UNIT was administered at age 15; no intelligible speech; no language skills to speak of

Memory IR 60

Reasoning IQ 85

Symbolic IQ 63

Nonsymbolic IQ 82

Math skills 1.8

Reading <1.0

Passage Comprehension Pf.4

Later Dx with Ushers

Provided intensive intervention for ASL; non-diploma track; had no formal language; no spoken language skills; parents used a gestural system to communicate with him at home; About 4 months after he arrived, once some behavioral issues were addressed, we noticed he was bumping into things – made a referral for vision testing. After several exams, dx came back as Ushers. When he arrived only his peripheral vision was impaired; now he is already down to 20% vision; referred for intensive services through VI/O&M and other agencies

“John”

9yo, 4th grade

Dx at birth; ASL introduced since birth; placed in Deaf schools

VCI 100

PRI 121

Math 4.5

Reading 5.9

Passage Comp 3.9

Referred to R/O ADHD; follow up testing with CAS (Planning 119, Sim 124, Attention 104), Devereux, BRIEF and ADHDT did not support Dx of ADHD. Seems he needs more challenging instruction.

Recognize:

- Hearing loss is not a disorder, like LD or language disorders
- Hearing loss is not an attention disorder, like ADHD or ASD
- Hearing loss is not a cognitive disorder, but academic delays and some functional classroom issues are common
- **Hearing loss can LOOK like every one of these issues**

Resources

- M. Natasha Kordus nkordus@cldr-cde.ca.gov
- <http://www.THRIVE.cde.ca.gov>
- Pinterest: <https://www.pinterest.com/CDERCSouth/>
- YouTube: https://www.youtube.com/channel/UCEZBDaCRvtt_DyiyuFZ2Qxg/
- Contact colleges/universities that focus on deaf community; e.g., CSUN, UCSD, Gallaudet, NTID
 - <http://www3.gallaudet.edu/clerc-center/our-resources.html>
 - <http://gri.gallaudet.edu/Assessment/>
 - Best Assessments tools for use with deaf and hard of hearing clients: <http://gri.gallaudet.edu/~catraxle/reviews.html>
 - Considerations for evaluation of deaf children and youth: <http://gri.gallaudet.edu/~catraxle/INTELLEC.html#consider>
 - Assessing academic readiness and language skills: <http://gri.gallaudet.edu/~catraxle/INTELLEC.html#readiness>
 - Assessing deaf infants, toddlers and preschoolers <http://gri.gallaudet.edu/~catraxle/INTELLEC.html#infants>
 - Literacy and deaf Studies <http://gri.gallaudet.edu/Literacy/index.htmlDsfq>
 - See handouts for additional resources

References

- Institute GR (2011) Regional and national summary report of data from the 2009-10 annual survey of deaf and hard of hearing children and youth. pp 1-12
- Leybaert J, D'Hondt M (2003) Neurolinguistic development in deaf children: the effect of early language experience. *Int J Audiol* 42(Suppl 1):S34-S40
- Lederberg AR, Schick B, Spencer PE (2013) Language and literacy development of deaf and hard of hearing children: successes and challenges. *Dev Psychol* 49(1):15-30. Doi:10.1037/a0029558
- Mayberry RI, Chen JK, Witcher P, Klein D (2011) Age of acquisition effects on the functional organization of language in the adult brain. *Brain Lang* 119(1):16-29. Doi:10.1016/j.bandl.2011.05.007
- Penicaud S, Klein D, Zatorre RJ, Chen JK, Witcher P, Hyde K, Mayberry RI (2013) Structural brain changes linked to delayed first language acquisition in congenitally deaf individuals. *Neuroimage* 66:42-49. Doi:10.1016/j.neuroimage.2012.09.076
- Skotara N, Salden U, Kugow M, Hanel-Faulhaber B, Roder B (2012) The influence of language deprivation in early childhood on L2 processing: an ERP comparison of deaf native signers and deaf signers with a delayed language acquisition. *BMC Neurosci* 13:44, doi:10.1186/1471-2202-13-44
- Hyde M, Punch R, Komesaroff L (2010) Coming to a decision about cochlear implantation: parents making choices for their deaf children. *J Deaf Stud Deaf Educ* 15(2):162-178. doi:10.1093/deafed/enq044
- Kral A, Kronenberger WG, Pisoni DB, O'Donoghue GM (2016) Neurocognitive factors in sensory restoration of early deafness: a connectome model. *Lancet Neurol* 15(6):610-621. doi:10.1016/S1474-4422(16)00034-X
- Davidson LS, Geers AE, Blamey PJ, Tobey EA, Brenner CA (2011) Factors contributing to speech perception scores in long-term pediatric cochlear implant users. *Ear Hear* 32(1 Suppl):19S-26S. doi:10.1097/AUD.0b013c3181ffdb8b
- Liddel SK (2003) *Grammar, gesture, and meaning in American Sign Language*. Cambridge University Press, New York, NY
- Humphries T, Kushalnager P, Mathur G, Napoli DJ, Padden C, Rathmann C, Smith SR (2012) Language acquisition for deaf children: reducing the harms of zero tolerance to the use of alternative approaches. *Harm Reduct J* 9:16. doi:10.1186/1477-7517-9-16
- Lyness C, Woll B, Campbell R, Cardin V (2013) How does visual language affect crossmodal plasticity and cochlear implant success? *Neurosci Biobehav Rev* 37:2621-2630
- Sugar M (2016) Dispelling myths about deafness. <https://web.archive.org/web/20160404050959/http://www.agbell.org/in-the-news/response-nyle-dimarco/>. Accessed 4 Apr 2016
- Hassanzadeh S (2012) Outcomes of cochlear implantation in deaf children of deaf parents: comparative study. *J Laryngol Otol* 126(10):989-994. doi:10.1017/S0022215112001909

Amraei K, Amirsalari S, Ajallouiyani M (2016) Comparison of intelligence quotients of first- and second-generation deaf children with cochlear implants. *Int J Pediatr Otorhinolaryngol* 92:167-170. doi:10.1016/j.ijporl.2016.10.005

Glickman NS (2007) Do you hear voices? Problems in assessment of mental status in deaf persons with severe language deprivation. *J Deaf Stud Deaf Educ* 12(2):127-147. doi:10.1093/deafed/enm001

Gulati S (2014) Language deprivation syndrome. ASL Lecture Series. https://www.youtube.com/watch?v=8yy_K6VtHJw,BrownUniversity

Humphries T, Kushalnagar P, Mathur G, Napoli DJ, Padden C, Rathmann C, Smith SR (2016) Avoiding linguistic neglect of deaf children. *Soc Serv Rev* 90(4):589-619. doi:10.1086/689543

Schenkel LS, Rothman-Marshall G, Schlehofer DA, Towne TL, Burnash DL, Priddy BM (2014) Child maltreatment and trauma exposure of deaf and hard of hearing young adults. *Child Abuse Neglect* 38(10):1581-1589. doi:10.1016/j.chiabu.2014.04.010

Additional resources available at:



<https://tinyurl.com/y3arf7q9>

Please, if you are interested, help us with research:

We are Drs. Jon Henner and Dr. M. Natasha Kordus. Dr. Henner is an assistant professor at the University of North Carolina, Greenboro. Dr. Natasha Kordus is the supervisor of Assessment and CDERC from the California School for the Deaf, Riverside. We are looking for professionals who regularly assess deaf and hard of hearing children for language deprivation or learning disabilities to take a survey. The survey has 73 questions which focus on demographic information, and personal insights about ASL, deaf culture, learning disabilities, and assessment use with deaf and hard of hearing populations. The goal of the survey is to collect information on who, what, and how the field gathers information on deaf and hard of hearing children who may have, or have a learning disability. This survey will take approximately 15 minutes of your time. We really appreciate your time.

To participate in this survey, please click the following link: https://uncg.qualtrics.com/jfe/form/SV_3Wa4SajytBGpsod