



**PUBLIC INPUT
CLERC CENTER**

Public Input 2018 Survey Findings: The Importance of Maximizing Language and Communication Acquisition and Access for Deaf and Hard of Hearing Students

By Amber Marchut, PhD and Amy Lambert, BA

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The Clerc Center, a federally funded national deaf education center, ensures that the diverse population of deaf and hard of hearing students (birth through age 21) in the nation are educated and empowered and have the linguistic competence to maximize their potential as productive and contributing members of society. This is accomplished through early access to and acquisition of language, excellence in teaching, family involvement, research, identification and implementation of best practices, collaboration, and information sharing among schools and programs across the nation.

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For questions or feedback:

Laurent Clerc National Deaf Education Center

ATTN: Monitoring, Evaluation, and Research

800 Florida Avenue, NE

MSSD, Suite 210

Washington, DC 20002-3695

E-mail: clerc.input@gallaudet.edu

Website: <https://clerccenter.gallaudet.edu>

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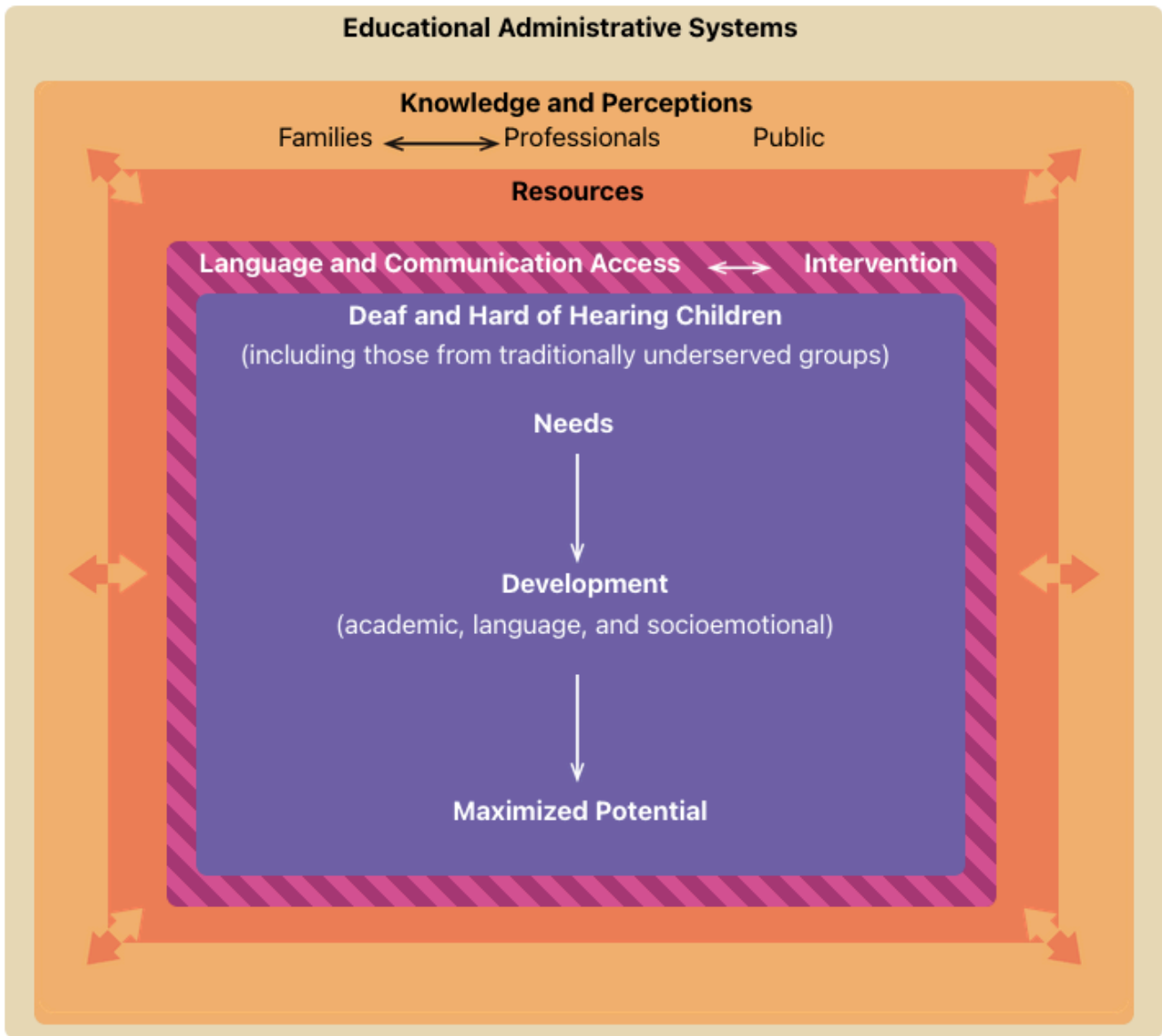
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Overview

The Language and Communication model is an interpretation based on respondents' feedback about Language and Communication, one of the 14 barriers identified in the national public input survey disseminated by the Laurent Clerc National Deaf Education Center in 2017 and 2018. Respondents included parents and caregivers of deaf and hard of hearing children as well as professionals who work with those children and families. In this survey, respondents were asked to answer the question:

What are the barriers preventing deaf and hard of hearing students from reaching their potential?
Their responses include five levels that will be discussed.

This model displays the relationships among factors such as the educational administrative systems, resources, and deaf and hard of hearing students' needs, all of which are related to language and communication and how they influence the abilities of deaf and hard of hearing children to achieve their fullest potential. The model has five levels:

1. **Educational Administrative Systems**, the outermost level, relates to language and communication provisions for deaf and hard of hearing students. This specifically refers to board members and school administrators who are creating policies and structures for deaf and hard of hearing students while maintaining compliance with federal law. These systems influence the following four levels.
2. **Knowledge and Perceptions**, the next inner level, incorporates the knowledge and perceptions of how language and communication affect deaf and hard of hearing students. Within this level are three groups of people whose knowledge and perceptions are of focus: families, professionals, and the public. As families' and professionals' knowledge and perceptions influence each other, a black two-way arrow demonstrates this in the model.
3. **Resources**, the next level, are the materials, information, services, and support related to language and communication access and the needs of deaf and hard of hearing students for resources. It is important to consider how the Knowledge and Perceptions and Resources levels influence each other; this is demonstrated by the thick arrows in the model. People's knowledge, perceptions, and resources influence the two innermost levels of the model.
4. The **Language and Communication Access and Intervention** level is based on responses regarding deaf and hard of hearing children's access to language and communication in various modalities and modes in different environments or situations. Survey responses include specific perspectives on how language and communication access and intervention should occur and the appropriate provisions and the needed improvements based on these perspectives.
5. **Deaf and Hard of Hearing Children's Needs, Development, and Maximized Potential** is the final and innermost level. Needs may encompass full language access, early language exposure, and peer communication to prevent language delays. In terms of development, three different areas of childhood development will be considered: academic, language, and socioemotional development. Thus, development coupled with the unique characteristics of deaf and hard of hearing students (e.g., additional disabilities, cultural background, language deprivation) affects the abilities of said students to reach their fullest potential.

An important note to keep in mind while reviewing this model relates to the Traditionally Underserved Groups (TUGs) and how such groups should be considered at all levels of this model.

Educational Administrative Systems

The first level, Educational Administrative Systems, refer to the board members or school administrators at the macro-level implementing the policies and structures for deaf and hard of hearing

children as well as the impacts of laws already in place or that should be implemented (e.g., ADA, LeadK, and IDEA).

This includes language access, language recognition, language accommodations, language support, language environment, language requirements, assessment, resource provisions, and professional training. An example shared by respondents includes the need to revisit the school administrative systems by implementing language development benchmarks for deaf and hard of hearing students. When these benchmarks are implemented, this action would be considered a decision made by school administrators while policies are determined at the federal and state level. Respondents emphasize that changes in legislation should focus on deaf and hard of hearing students' experience in a language-rich environment at their schools including the ability to access qualified service providers with the specific expertise needed to work with this population. This might involve the school systems as a whole to determine how a language-rich environment is achieved. Respondents also indicate that strengthening such components of the Educational Administrative Systems would help to meet the needs of deaf and hard of hearing students. For instance, interpreter qualifications need to be adjusted to provide deaf and hard of hearing students with language-rich information. Another approach to improving and strengthening the Educational Administrative Systems could be to allow for more interactions between people involved in policy-making decisions and various deaf and hard of hearing communities. Additionally, respondents discuss how the Educational Administrative Systems can have a systemic impact, thus influencing all the subsequent levels:

- Knowledge and Perceptions
- Resources
- Communication and Language Access and Intervention
- Deaf and Hard of Hearing Students' Needs, Development, and Potential Achievement.

For instance, with Resources, the Educational Administrative Systems can be used to ensure that deaf and hard of hearing students are able to access the auxiliary devices they need.

Here are some examples of responses related to the Educational Administrative Systems:

- *"...We need to convince legislators to pass policies and procedures to implement benchmarks to assess a Deaf/HOH child's language development..."*
- *"...Furthermore, the policy and legislation makes students more likely to be placed in an environment with a lack of first language around them FIRST and thus being made to fail before being placed in an appropriate language environment."*
- *"...If Lead-K passed all states as well as Federal should be more helpful for 0-5 to 8 years to be determined of the language deprivation..."*
- *"...We need to close up the loopholes in policy and legislation with EHDI and IDEA, and recognize that ASL is a language, one of the languages used by deaf people..."*
- *"...Policy and Legislation: [state] needs to allow the deaf professionals/interns to interact within the building so that's where the lawmakers will better understand about the spectrum of deaf (i.e. hearing loss, hearing impaired, modes of communication and so on)..."*

- *“...The school's perception of "least restrictive environment" as outlined by the current laws do not allow for the specialized skills required by direct service providers to provide early language and literacy skill development...”*
- *“...ADA also specifies that schools ensure effective communication access via auxiliary aids and services to afford students an equal opportunity to reach the same level of achievement as that provided to others...”*
- *“...I have noticed that while interpreters are provided for students that need them, interpreters meet the minimum expectation for interpreting (EIPA or state mandated testing scores) but even at that level interpreters are not able to provide language-rich interpreting while also adapting and meeting the needs of each student....”*
- *“...Policy and legislation - - district policies of housing students with hearing loss in their own district or their own neighborhood school, isolates children socially when they can't keep up with the fast paced communication going on around them by their peers. They withdraw and become more insulated and fall further behind linguistically and socially and the cycle repeats....” (professional).*
- *“...Lack of understanding, language and communication: I see this as a goal that each TOD needs to establish in our individual settings. We need mentors that are Deaf in our schools serving our students and making a presence for the school buildings. Our district has accepted a proposal to have a Deaf Mentor Program - which is amazing for our state!! One of the 1st school districts to accept the proposal....”*

Knowledge and Perceptions

The second level consists of people (families, professionals, and the public) and their knowledge and perceptions of language and communication, specifically, how their knowledge and perceptions align with the needs and development of deaf and hard of hearing students. Families include parents, caregivers, and family members. Professionals include teachers, staff, administrators, medical professionals, audiologists, interpreters, service providers, and other professionals who work with deaf and hard of hearing students. The public refers to society and various communities that deaf and hard of hearing students may interact with (e.g., the Deaf community and the general local community). Some examples of knowledge of what people know or do not know about include language development milestones, deaf education, and language and communication access. People can expand their knowledge through research, whether conducting studies or gathering information. These activities influence their knowledge about language and communication options.

Some examples of perceptions include the certain understanding that people hold about deaf and hard of hearing people, learning approaches, or language acquisition. For example, professionals' knowledge about the importance of early language acquisition and how they present such information with families can change the families' perceptions about what their deaf and hard of hearing children need.

Respondents also noted how professionals with limited expertise may misinform families and negatively impact the academic potential of deaf and hard of hearing students. There is a need to have

qualified professionals with the needed expertise and knowledge to work with families and their deaf and hard of hearing children. This is demonstrated by the two-way arrow between families and professionals in the model.

Here are some examples of responses related to Knowledge and Perceptions:

- *“...Also most of our students have a hearing loss plus a cognitive one as well and are coming from lower income families, which means they are not getting the language and support when they are at home because the parents don't understand and or know what to do at home with them.”*
- *“I find critical need areas to be lack of understanding and well-rounded education provided early to parents, resulting in lack of understanding - also lack of follow through with chosen modality/modalities at home, resulting in language/communication/literacy deficits. Early language gaps result in huge educational issues.”*
- *“...The research shows that acquiring an L1 too late will impact achievement. Parent's often do not realize that what hearing children learn incidentally, deaf children must be directly taught due to all of the missed auditory input...” (professional)*
- *“In our area, parent-infant services were taken away from the school and put under [early intervention program]. There, the case managers are not Deaf knowledgeable although the direct service providers are. However, they now strictly follow IFSP guidelines focusing on parent concerns....but the parents don't know what they don't know (they focus on the ear and hearing and don't realize the importance of that early language time). Many students now come into school (though identified earlier) farther behind than they used to be. Many are not choosing a modality until the child enters school at age 3...”*
- *“A huge barrier is ESL students who also have a hearing loss. A better understanding and knowledge of working with these students would be helpful”*
- *“...Qualified direct service personnel: there are not enough adults who care for deaf/HoH children who are able to properly care for and handle hearing equipment, or who have enough education to teach those children. The teachers who work in the public schools with deaf/HoH children are highly under-qualified. They do not have a high level of education or training associated with deaf/HoH culture, language, children, communication, etc. and many of those teachers do not have the ability to effectively communicate with deaf/HoH children...”*
- *“...Speech therapists often have little/no training in how to teach appropriate skills to cochlear implant users to improve their speech and new "listening" skills....”*
- *“Professionals such as doctors/audiologists look at deafness as a problem that needs to be fixed. They do not always give all of the facts to families so families think that hearing aids and cochlear implants will fix their child. There is also a lack of follow through with intense speech therapy that needs to happen when a child receives a cochlear implant. Finally, there is still a perception in the medical field that ASL will limit speech and is detrimental which is not true. Students are pushed through the education system without language and support needed.”*
- *“...The lack of understanding of superintendents on the needs of D/HH students so that teachers for B-3 do not have the time or resources to spend with children and their families for*

proper support in language and communication development when there is a more significant hearing loss....” (Parent)

- *“...Education to language choices with children that have hearing loss is such a huge process for parents to make with little information....”*
- *“There is still a strong bias in the medical community toward the repair of Deaf children. This often results in significant language acquisition delays. The alingual Deaf children arrive at school and are placed in special education which continues to view them as "handicapped" Many of the staff there are either under prepared to teach Deaf children, or they do not believe that Deaf children can succeed. Many of them are basically employees of the cochlear audiological industrial complex. They can bill medicaid, but cannot teach children. Very few of them have any abilities in ASL.”*
- *“I am a hearing parent of a deaf child. She is now 30 and hopefully things have changed but we were strongly encouraged to avoid sign language when she was first identified as deaf. I think children AND hearing parents should immediately be introduced to ASL and encouraged to use this method of natural communication in addition to any other avenues chosen....”
(parent)*
- *“I feel like parents are forced to choose which communication mode for their child.”*

The knowledge and perception of families, professionals, and the public influence the next innermost levels of this model, such as Resources. For example, what parents know can influence how they use resources to meet their deaf and hard of hearing children’s needs. Another factor to this level is the family's background, including socioeconomic status, home language, and location (e.g., urban, rural, specific state). For instance, families with a low socio-economic status may not be able to obtain the information needed to support their deaf and hard of hearing children. This level represents the perspectives and understandings people have about deaf and hard of hearing students regarding language and communication as it pertains to access, development, and intervention.

Resources

The third level of this model comprises resources, which includes materials, information, support, services, programs, curriculum, classes, and funds. Some examples include hearing assistive technology, speech therapy, sign language classes, language assessment tools, early intervention, and language reading curriculum. These resources may be absent, limited in availability, challenging to access, or misdesigned or developed inappropriately. For instance, some families may struggle with finding resources to learn sign language or to support their deaf and hard of hearing children. Furthermore, families in rural areas or those of low socioeconomic status may experience more challenges in accessing resources. There are some specific populations of deaf and hard of hearing students that need resources better designed for them, including deaf and hard of hearing students with disabilities.

A two-way relationship between the Resources level and the previous level, Knowledge and Perceptions, is noted. For instance, information about the critical learning period provided to parents or

caregivers can influence their knowledge about the needs of their deaf and hard of hearing children. Vice versa, when people understand how to best support deaf and hard of hearing children, this can influence their access to resources. For example, if people are aware of programs such as Deaf Mentors, this can influence their likelihood to seek out such resources.

Here are some examples of responses related to Resources:

- *“...In addition to early intervention services by a DHH Specialist, families may benefit not only from access to resources, but working with a DHH Counselor to help guide them through the grieving process in order to help better support their child in accessing language development...”*
- *“In my experience having a Deaf-Blind child, it seems like there are lots of resources within early intervention programs - however they appeared mostly to be utilized to provide specialist and interventionist services that focused on the child, rather than training parents in ASL and building the right communication and language environment at home. This was a critical barrier to early language acquisition, as we all know that parents, family, and close associates provide the linguistic and cognitive foundation for language development...”* (Parent)
- *“...Additionally, without school support for ASL acquisition, we paid out of pocket for community classes, spending around \$600 over the course of a year and a half and still feeling like we only had minimal ASL skills. School won't provide language support and there are few and costly resources for parents who seek to learn ASL on their own. (Some programs exist for parents of D/HH kids ages 0-3, but our son was just over 3 when he was found to be HoH. By that point he was already significantly delayed in speech. This continues to impact school success and behavior issues, even though he has made huge gains.)”* (Parent)
- *“...Living in a rural area does not allow the parents the resources they need to learn fluent sign to communicate with their child. ...”*
- *“...Family involvement and support: In order to have this plan assimilated at home, we need to have community centers all over in the USA, where hearing parents can be with Deaf adults and acquire ASL....”* (Professional)
- *“...With limited resources, both financial and personnel, programs for children who are D/HH struggle to provide the supports to families to insure language models and clear communication outside of the student's school day....”*
- *“...A few years ago, the SLP (me) and the ToDs and the Educational Interpreters were trained with Visual Phonics, and this has made a huge difference in reading strategy use....”* (Professional)
- *“There are limited resources in many rural areas of my state. Families are hesitant to send their young child to a deaf school that is far away from their home, and the school staff does not necessarily understand how the needs of their child are different from a child who has normal hearing. This leads to communication delays and lower expectations for these students.”*
- *“There doesn't seem to be much put there for deaf adopted late language learners nor are there materials for geared towards deaf homeschoolers.”*

- *“...Lack of variety in apps for literacy and early learning skills, i.e., wish to have an app that matches alphabet letters with Sign language letters, numbers etc...”*
- *“...There are no resources in our area that effectively support both languages in a formal educational setting, so we will essentially be forced to choose one method of communication that our child will learn formally and find creative ways and other resources to support the other on our own.” (Parent)*
- *“Resources - Resources for families regarding DHH with additional disabilities are needed, especially transition services for life after high school. Language barriers - Workshops for families to learn sign language emphasizing the critical language opportunities they can provide to their child. These resources could be supported by services such as transportation to facilities where classes take place. Also, childcare during classes would increase participation. Classes would need to be translated for families as well. A grant to fund transportation, childcare, and translation services for local school districts could be an option.”*
- *“...We need to integrate ASL videos to the curriculum, which will reduce the burden of teachers not to spend hours after school to modify curriculum and also sign in ASL during class time....” (Professional)*

How resources are used can influence the next few levels, including how language and communication access is provided and how they are used for deaf and hard of hearing children’s language development. For instance, sign language classes for parents or caregivers can help them provide more communication and language access for their deaf and hard of hearing children.

Language and Communication Access and Intervention

The 4th level contains Language and Communication Access and Intervention, as well as how they influence each other. Respondents discuss the importance of providing access, although access may be limited due to various factors. Pivoting to intervention, it plays a significant role in supporting deaf and hard of hearing children’s development and potential. Both “Language and Communication Access” and “Intervention” are connected in that intervention or lack thereof can impact deaf and hard of hearing children’s communication and language access, and in turn, access can influence the quality of intervention these children receive.

Language and Communication Access

Language and Communication Access refers to how deaf and hard of hearing students’ language and communication access may be dependent on different environments or situations. For instance, a mainstream environment may provide restrictive language and communication access for some students. Thus, some respondents discuss the need to ensure accommodations are provided for deaf and hard of hearing students to achieve access. While accommodations are considered an intervention, respondents indicated the impact accommodations have on language and communication access as well. This might include utilizing a language that is most accessible to the deaf and hard of hearing student(s) (e.g., ASL or English). For example, family members or school personnel (e.g., an interpreter) might provide access to deaf and hard of hearing students by

communicating in ASL or spoken English in the classroom or in conversation, with varying levels of benefits.

Here are some examples of responses related to Language and Communication Access:

- *“...Language and communication: students need to have information presented in multiple modalities....”*
- *“...Also during middle and high school education students just want to fit in with their peers, having to rely on a third party for communication will often make the child feel as though they are different and therefore they stop trying to rely on the interpreter and figure it out....”*
- *“...I also asked that if hearing staff who didn't know sign language needed to speak to me when I had deaf students in my classroom, that they attempt to grab one of the many interpreters that we have on staff to interpret for them when they come into my class so that DHH students had an opportunity to see both sides of adult conversations and again, have access to communication in their direct environment....” (Professional)*
- *“...The students may have difficulty asking clarification questions and lack socialization opportunities due to not hearing the announcements.”*
- *“...Working in groups of kids is very difficult for her - it's one thing to have access to an FM system for teacher to student communication but being a student in a group of students is difficult.” (Parent)*
- *“I find that the students are oppressed by the professionals. Spoken English used in front of a Deaf/HH child without sign language shows that it is okay to be oppressed and okay for the oppressor to continue to oppress.”*
- *“...The family only spoke Spanish in the home. Due to stigma and hope that the student would acquire hearing over time, the family did not seek ways to communicate with their child. Then he entered the school system, where only English is spoken. The student did not learn expressive language skills until he entered school, at which point he learned ASL. He was unable to truly communicate with his family and could only communicate with friends through an interpreter....”*
- *“...A lot of families rely on the school as the only source of academic education (not unlike some other families with hearing children) but hearing children continue to learn some material incidentally that the student with hearing loss will not overhear. The students do not learn incidentally what life may be like after high school like a hearing peer may”*
- *“Many students are not able to communicate with family members since their families do not sign. I have asked my students numerous times how they communicate at home and am told either by texting or showing/pointing leading to frustration....”*

Intervention

Concurrently, intervention was another concept suggested by responses. Based on the Institute of Educational Sciences, intervention can be defined as a specific program, product, practice, or policy that is thought to have an impact on a given set of educational outcomes. This definition will be utilized as it aligns with responses regarding intervention for deaf and hard of hearing students. Intervention may function as a plan or action to resolve the language and communication barriers for deaf and hard of hearing students as well as support language acquisition and learning. Responses described intervention as determining what language the child should utilize at home as well as in the classroom (language choices). The strategies used by parents and professionals to facilitate language barriers (i.e., accommodations such as CART or interpreters) are also considered interventions. Additionally, intervention refers to the approach used to facilitate early language acquisition or language learning whether that be in ASL or English. For instance, a specific educational setting that supports a particular language choice may influence the language development of a deaf or hard of hearing student. Intervention also influences how deaf and hard of hearing students' needs are met. Therefore, this affects their abilities to achieve their potential.

Here are some examples of responses related to Language Intervention:

- *"...Early intervention is the key piece in language and there is a big disconnect from educating parents and providing services to students younger than two years old..."*
- *"...I believe the beginning stage of a deaf child's life is critical; therefore it is necessary to provide language acquisition at the earliest stage."*
- *"I provide CART captioning for middle and high school students. Barriers that I see from my perspective of communication access are: Technology: lack of captioning of media the students are required to watch and understand. Lack of understanding: by teachers and presenters of their needs regarding logistics (within the classroom and larger assembly-type programs) so they can see and hear comfortably, require the presenter to use a microphone, etc...." (Professional)*
- *"...Early hearing detection allows for early intervention to provide language and communication support in whatever modality the family chooses."*
- *"Language and Communication - Language is the key to human connection. With this I'm speaking more to language models. To truly internalize and take hold of a language that will lead to mastery, children need strong language models. 1-2 sign directions do not expand on ideas. Currently, there is a lack of ASL skill among educators and parents"*
- *"...Deciding on the language to use in everyday life can be difficult. ASL, English or the spoken language in the home can complicate issues..."*
- *"Parents who do not sign with their children result in acquisition of language not happening until the child starts school at the age of 3 or for some until age 5 if they don't take part in Early Intervention services...."*
- *..."Most infants and toddlers get a mixed bag of EI and communication opportunities, likely a TC approach...." (Professional)*

Overlaps Between Language and Communication Access and Intervention

Communication and Language Access and Intervention share a relationship in that access impacts intervention, and vice versa. For instance, when a deaf or hard of hearing student is provided with full language access, their language and communication needs are more likely met. The lack of intervention might also lead to communication and language access barriers. For example, parents and family members may not learn sign language if there is no intervention which, in turn, leads to a lack of access to conversation in the home for deaf and hard of hearing students. Furthermore, their needs are better supported if they are given language intervention starting at an early age. Some respondents share the perspective that early exposure to a visual language would in turn support their ability to communicate down the line and provide deaf and hard of hearing individuals access. By providing such interventions, they may be more likely to achieve their fullest potential. This shared relationship between Language and Communication Access and Intervention is indicated by the two-way arrow.

Here are some examples of responses related to both Communication and Language Access and Intervention:

- *“While all of the listed areas may have an impact on D/HoH students, having access to consistent language and communication is key...”*
- *“...There is a huge gap in early intervention services that include deaf professionals as well as exposure and acquisition of ASL...”*
- *“Early intervention is important, but if the parents do not immediately start communicating with a deaf child, it doesn't help much....”*
- *“...We need consistently early and consistently available language access for our students, a better way to provide our students access to written language, and support and curriculum for teaching late language learners.” (Professional)*
- *“...Family involvement is important especially when it comes to communicating with their child by using American Sign Language or by the use of visual cues.” (Professional)*
- *“...Early detections and intervention- if this was better, then more of our students would have access to early language and the "snowball effect would be less". Deaf and Hard of Hearing children often lose out on "hearing adults talking in the background" having full conversations. They might not see an adult signing to another adult in a full usage of ASL because they are not involved and the adults are not asking them to watch the conversation they are having. I think the building of communication is really lacking with our Deaf and HH children”*

Deaf and Hard of Hearing Children’s Needs, Development, and Maximize Potential

The fifth level of this model focuses on Deaf and Hard of Hearing Children’s Communication and Language Needs, Development, and Maximized Potential. For instance, deaf and hard of hearing students have a need for full language access, early language acquisition, and high quality peer communication. These needs are connected to previous sections on communication and language access and intervention. These students’ needs are contingent on individual characteristics, the presence of disabilities, immigrant status, home languages, and schooling experiences. Needs for

early language acquisition to avoid language delays are also a key component of this level. Needs may also be described by what families should or should not do in order to support their child's needs and overall development. In turn, how a deaf or hard of hearing student's needs are met influences their abilities to reach certain developmental milestones pertaining to academics, language, and socio-emotional learning. Considerations for academic development may be described as delays in abstract reasoning skills, working memory, and processing speed given exposure to a first language has an impact on different developmental milestones. Considerations for language development might include reading and writing abilities, and receptive and expressive skills. Incidental learning plays a crucial role in a child's socio-emotional development, along with their ability to engage with classroom dynamics and their peers. The link between deaf and hard of hearing children's needs and developmental milestones to maximize their potential also encompasses the concept of identity development. Deaf and hard of hearing student's academic, language, and socio-emotional developmental needs are the innermost part of the model and directly relate to these students' ability to maximize their potential. Ultimately, enhancing a deaf or hard of hearing child's access to language and communication will foster their overall development. as these aspects are interconnected.

Here are some examples of responses related to Deaf and Hard of Hearing Children's Needs, Development, and Potential Achievement:

- *"In general, we are seeing more deaf and hard of hearing students with significant cognitive and neurological challenges that are severe barriers to learning and achievement. Still seeing way too many students with language deprivation; many have arrived from other countries and cultures."*
- *"...The view of learning ASL as a 1st language doesn't happen until later in middle or high school, when the deaf student starts to self-explore their self-esteem...."*
- *"...Our students' continued lack of normal exposure continues to impact their achievement and ability to move from the concrete to the abstract."*
- *"...Often children with hearing loss do not get the same exposure to language and communication as their hearing peers. This sets them at a disadvantage from the beginning..."*
- *"...Deaf children with disabilities could also act as a barrier to their successes because their disability may prevent their language acquisition. For example, is there information about assessing deaf children with dyslexia and proving strategies? What are their literacy skills like?" (Professional)*
- *"...Of all the students I've worked with in 20 years, only ONE set of parents could sign to their child. For me, this creates the base for all the educational problems that follow: the ability to read, learn from the sign language interpreter or teachers. So for me, THAT is the biggest barrier, and it has an impact on all the others."*
- *"...When they get into a school their language is delayed. As a person who works in the K-12 arena, I see many students come through with a language delay..." (Professional)*
- *"...I believe that family involvement and support is very important because it sets a strong foundation in any child's life. It will help with communication and lack of understanding if the parents would be involved."*

- *“...Social concerns because I have observed how difficult it is for some DHH students to not only communicate with peers but understand the non-verbal social cues of their communicative partner to also understand how to make friends and who is a friend.”*
- *“...Language acquisition needs to begin early, targets developed and progress assessed prior to school start. It should be expected that D/HH kids begin school on par with their hearing peers in regards to language and communication....”*
- *“...Oftentimes families are not able to communicate with their child and the child suffers socially. This also leads to lower scores in literacy because there is no language or communication happening during the crucial 0-5 years....”*
- *“...They are more visual learners than other peers. ASL is really important to deaf people....”*
- *“...I know the child's literacy would improve if they had more communication at an early age, at home....”*
- *“...If family members are not involved with the Deaf student's education, the student misses out on language acquisition at home, reading opportunities, gaining math skills, and personal relationship skills....”*
- *“...The students I work with have poor reading skills, lack of common knowledge that should be gained through incidental learning, and even poor sign language skills/understanding because their only exposure to it is mainly through classroom interpreters.”*
- *“The biggest barriers that I see with my Deaf and Hard of Hearing students are due to lack of family involvement which leads to lack of early detection and lack of early intervention, which in turn leads to lack of communication, language, and literacy for the student....”*
- *“...They come to school with limited experiences and/or limited language to talk about their experiences, and are then expected to access curriculum without having the foundational language and experiences upon which to build.”*
- *“...Development of literacy is crucial to education, but language acquisition and explicit theory of mind development, critical thinking, and problem-solving must come first and be supported throughout a child's life by both family and educational resources. Secondary disabilities play a significant part in hindering development but might be mitigated or lessened by effective language acquisition and sociolinguistic acquisition and intervention....”*

Conclusion

All the levels and each component discussed earlier influence deaf and hard of hearing students' abilities to maximize their potential. For instance, some administrative decisions, as discussed by some respondents, hinder these students' abilities to achieve their potential. Perceptions and knowledge of families, professionals, and the public can impact students' abilities in that if they are not knowledgeable about the needs of these students, then students may be less likely to achieve their potential. Communication and language access when provided in a way that is complete and consistent for deaf and hard of hearing students increases the likelihood of maximizing their potential. Similarly, when considering appropriate resources, intervention, and language development, students

may be more likely to reach developmental milestones with appropriate support and resources in place. When deaf and hard of hearing students' needs and developmental milestones are met, they will be more likely to succeed.