



**PUBLIC INPUT  
CLERC CENTER**

# **Public Input 2018 Survey Findings: The Influence of Factors Associated with Literacies on the Development of Deaf and Hard of Hearing Students**

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ISBN: 0-88095-289-X

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*The activities reported in this publication were supported by federal funding. Publication of these activities shall not imply approval or acceptance by the U.S. Department of Education of the findings, conclusions, or recommendations herein.*

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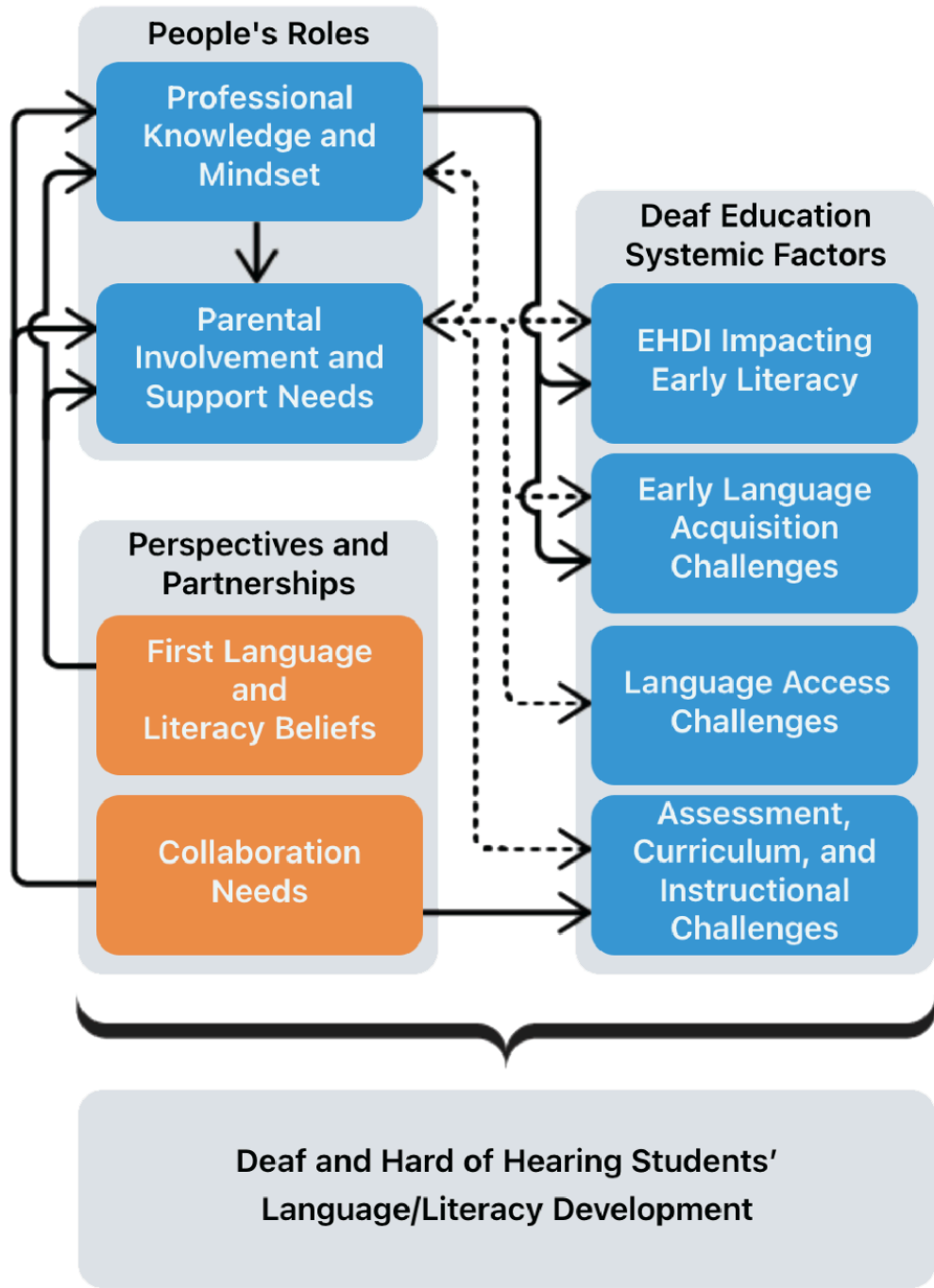
## **Acknowledgments**

This work is a product of a team effort; it would not be as credible without those involved. LaWanda Jackson's data support has been instrumental in shaping the foundation of our research.

## **Authors' Note**

Information from this document should be cited as follows:

Dang, D., Lutz, L., & Marchut, A. (2024, September). *Public input 2018 survey findings: The influence of factors associated with literacies on the development of deaf and hard of hearing students*. Washington, DC: Gallaudet University, Laurent Clerc National Deaf Education Center.



## Overview

The Literacies model is an interpretation based on respondents' comments from the public input survey disseminated in 2017-2018. This survey asked parents of deaf and hard of hearing children and professionals who work with them about their perspectives on barriers that prevent deaf and hard of hearing students from achieving their academic, linguistic, and socio-emotional potential. This model focuses on comments about issues regarding reading and writing skills and challenges to the academic achievement of deaf and hard of hearing students in various subject content. It presents respondents' perspectives on different factors related to literacy as a barrier to deaf and hard of hearing children' reading and writing skills and academic achievement.

Literacies as a barrier is defined as follows:

*Issues relating to the reading and writing skills as well as academic skills among deaf and hard of hearing children and/or challenges to deaf and hard of hearing students' successful attainment of reading and writing skills and academic achievement. Literacies can also be considered more broadly to be related to discipline-specific literacies, such as cultural studies, scientific literacy, or numeracy.*

The model shows four components in black, three with their own set of factors:

- **People's Roles:**
  - Professional Knowledge and Mindset
  - Parental Involvement and Support Needs
- **Deaf Education Systemic Factors:**
  - EHDI Impacting Early Literacy
  - Early Language Acquisition Challenges
  - Language Access Challenges
  - Assessment, Curriculum, and Instruction Challenges
- **Perspectives and Partnerships:**
  - First Language and Literacy Beliefs
  - Collaboration Needs
- **Deaf and Hard of Hearing Students' Language/Literacy Development**

These components are connected to one another in different ways as shown in the model. Additionally, the impact is either uni-directional (described as a solid, single arrow) or bi-directional (described as a double-lined, double-headed arrow). Two model components, People's Roles and Deaf Education Systemic Factors, have a direct impact (indicated by blue arrows in the model) on deaf and hard of hearing students' language and literacy development. Impacts of Perspectives and Partnerships, the third model component, on deaf and hard of hearing children's development in these two areas are indirect (as shown by orange arrows). The first three model components and related factors have an important role for deaf and hard of hearing students' language and literacy

development (represented as the fourth model component). One- and two-way relationships among the different model components are discussed in the following sections.

## People's Roles

The topmost left text box in black represents the first model component, People's Roles, which includes professionals and parents of children who are deaf or hard of hearing. The two groups play a significant role in providing education and language support to deaf and hard of hearing children. Those individuals are often the first line of support and advocacy for these children, ensuring they receive the necessary resources and accommodations to thrive academically and socially.

The People's Roles component includes two factors:

- Professional Knowledge and Mindset
- Parental Involvement and Support Needs

### Professional Knowledge and Mindset

Professional Knowledge and Mindset, the first factor in the People's Roles model component, is represented in blue. Starting with knowledge, professional knowledge refers to a qualified professional's understanding of theory, technique, and practice in specific fields related to deaf education. Respondents discussed how, if professionals lack the following, they may not meet deaf and hard of hearing students' needs, thus impacting deaf and hard of hearing students' literacy and academic development:

- Knowledge and understanding
- Experience
- Qualifications and training
- Signing skills

As a result, some respondents discussed that professionals without the needed knowledge make decisions that do not benefit deaf and hard of hearing students' literacy development. Respondents also discussed the need for professional development and teacher training programs, leading to a better understanding of how to meet deaf and hard of hearing students' literacy and academic needs.

Examples of responses related to Professional Knowledge:

*"... The commitment from DHH [deaf and hard of hearing] professional teams should really focus on professional development and pursuit of the most up-to-date resources for reading instruction, vocabulary supports, current-relevant daily events and post K-12 aspirations that many DHH students have ...."*

*“... Often interpreters are the “teacher” but don’t have the backup of teachers, who lack in signing skills. Too much emphasis on talking and lipreading or auditory and not academics. Supervisors in districts without knowledge of deafness and needs.”*

*“... The educational audiologist is a contracted position, so her services are not readily available, and she doesn’t have a deeper understanding of our district’s resources and inner workings. The SLPs have limited experience with deaf/HOH, and we are told again and again that his hearing is not related to his reading, comprehension, or behavior...”*

A professional mindset defines a professional’s attitude, expectations, and commitment to their deaf or hard of hearing students regarding their literacy development. A respondent discussed that professionals do not always have high expectations of deaf students. One example follows below:

*“... many deaf students do not really understand English because teachers did not do a good job or had a too low expectation for deaf students ... Unfortunately, special teachers [are] not required to sign or learn ASL. I think special teachers or English teachers [who] are familiar with ASL and English will be helpful to deaf students to know the difference between ASL and English. Many deaf people do not understand why their English is really bad. But they actually use ASL in [writing] instead of English. They are not aware of it ....”*

### **Professional Knowledge and Mindset → Parental Involvement and Support Needs**

Professionals without the knowledge or necessary professional training (first factor) may directly impact the ability of parents (second factor in the People’s Roles model component) to support their deaf or hard of hearing children’s literacy and academic needs.

Examples of responses related to Professional Knowledge and Mindset → Parental Involvement and Support Needs:

*“... During her 10<sup>th</sup> grade year, we were notified that the teacher that had been teaching her through middle school was not certified to teach courses at the high school level that would allow her to meet the recommendations for college entrance. We transferred her to our state school for the deaf for her 11<sup>th</sup> grade year. Once there, we found out that she was very far behind in what she should be at for her age (vocabulary, grammar, basic knowledge, etc.) ....”*

*“... A lack of or a limited amount of qualified personnel leads to schools making literacy, language, and communication choices for the families/child instead of the other way around.”*

The Professional Knowledge and Mindset factor relates to two factors associated with the Deaf Education Systemic Factors model component (represented in black): EHDI Impacting Early Literacy and Early Language Acquisition Challenges.

## People's Roles

Professional Knowledge and Mindset



## Deaf Education Systemic Factors

EHDI Impacting Early Literacy  
Early Language Acquisition Challenges

Each relationship is described below.

### **Professional Knowledge and Mindset → EHDI Impacting Early Literacy**

Issues respondents discussed included the shortage of qualified early hearing detection and intervention (EHDI) professionals and the lack of training for those professionals, which impact deaf and hard of hearing students' early language development. Some of those early intervention professionals make decisions that do not benefit deaf and hard of hearing students' early language and literacy development.

Examples of responses related to Professional Knowledge and Mindset → EHDI Impacting Early Literacy:

*"I think many teachers and EI [early intervention] providers do not have enough experience with deaf children and how to promote language development and literacy ...."*

*"... I feel that there is still a shortage of qualified personnel and access to them by parents at the birth-to-3 level. As a result, children are behind in language and communication skills when they enter school, and this naturally leads to a delay in literacy skills."*

Also, professionals' lack of expertise and understanding of early language acquisition significantly impacts deaf and hard of hearing students' early language development and, later on, literacy success. There is a need to address this issue. A respondent comments:

*"... We need more training and evaluations for teachers in the early years to teach language in a systematic, intentional manner to ensure all students enter kindergarten with age-appropriate language and vocabulary. Once that happens, we should see changes in academic development and literacy skills."*

### **Professional Knowledge and Mindset → Early Language Acquisition Challenges**

Professionals' limited signing skills, knowledge, and experience may impact deaf or hard of hearing students' early language development. For example, one respondent shares:

*"... We need to have qualified early interventionists and educators to assist in development of the optimum levels of language and communication skills in young children, set high standards for them, and help them reach their full potential."*

In addition, educational professionals' mindset, such as negative attitudes, low expectations, and limited commitment to deaf and hard of hearing students' education, may negatively impact students' literacy skills and academic achievement. Some schools and/or teachers may not expect deaf or hard of hearing students to be able to meet grade-level expectations of subject content and, in some cases, pass these students without ensuring they have adequate knowledge and skills, partly to avoid potential pushback from parents and school districts. Other teachers may not be as creative or committed to exploring different ways to support their deaf or hard of hearing students' successful learning and mastery of academic content.

Examples of responses related to Professional Knowledge and Mindset → Early Language Acquisition Challenges:

*“The biggest obstacle to the educational development is that deaf education teachers, general education teachers, school administrators, and IEP [Individualized Education Program] committees simply pass deaf and HH students up the grades in order to keep their jobs and to avoid pushback from complaining parents and the district’s punitive response to failing SPED [special education] students. Consequently, deaf and HH students quickly learn that they do not need to apply themselves in order to pass a class. The teachers literally give them passing grades even though the student has not mastered the subject matter. Teachers and administrators are afraid to allow a SPED student to fail for numerous reasons. The net result is that the deaf and HH kids advance through the school system grades, but when they graduate, their academic abilities are not on par with 12<sup>th</sup> grade hearing students ....”*

*“... Teachers of the deaf frequently have low expectations for deaf/HH students. I have seen this in residential programs and mainstream programs both. There are some amazing instructors out there. They work long hours to creatively teach their students on grade level, but that doesn’t happen that often, and the students become further and further behind their hearing peers. The average deaf/HH student does not have the same amount of homework as their hearing peers, which is ludicrous ....”*

The Professional Knowledge and Mindset factor is also connected with the Assessment, Curriculum, and Instruction Challenges factor (in blue) within the Deaf Education Systemic Factors component (in black on the right of the model).

### People’s Roles

### Deaf Education Systemic Factors

Professional Knowledge and Mindset ↔ Assessment, Curriculum, and Instruction Challenges

This relationship is bi-directional (shown as a blue double line with double-headed arrows) and is explained further in the Deaf Education Systemic Factors section.

### Parental Involvement and Support Needs

The second factor in the People’s Roles model component refers to Parental Involvement and Support Needs (in blue). This factor, based on responses, reflects parents’ need for support and resources (e.g., information) so they can support their deaf or hard of hearing child’s literacy development and education (e.g., math skills). Respondents discussed some obstructions that impact parental involvement, such as the absence of EHDI support, financial and time constraints, and a lack of information and misinformation. Some respondents stated that some families appeared to be insufficiently involved in their deaf or hard of hearing children’s developing literacy skills.

Examples of responses related to Parental Involvement and Support Needs:

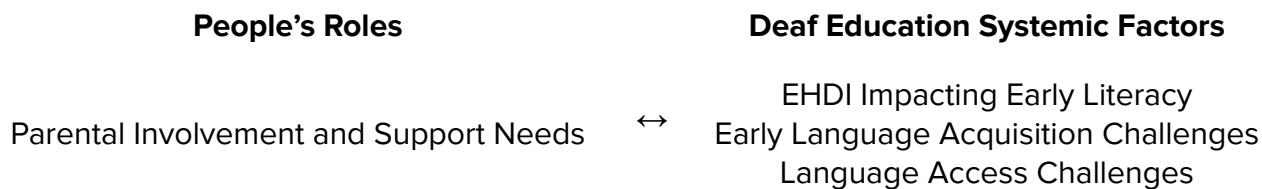
*“Families that are consistently involved in their child(ren)’s education significantly makes a difference in their lives. Children who are continually being supported by their parent(s)/family members are positively encouraged to develop their potential to the fullest. So, it is critical that families make every effort to be involved in their child(ren)’s education which encompasses not only academic but social-emotional and psychological development throughout the life of the child(ren) ....”*

*“In [state], many Hispanic parents think the teachers are responsible to teach their students. They are expecting that their child is able to read, write at a regular level, and can speak in a few years. It is not true. They do not have time to help [with] their child’s homework. They believe it is the teachers’ job ... so the kids will understand the structure or foundation of writing when s/he arrives at 10 years old. It is late to learn ....”*

The Parental Involvement and Support Needs factor is also connected with the Deaf Education Systemic Factors component (in black on the right of the model) and three of its factors (in blue):

- EHDI Impacting Early Literacy
- Early Language Acquisition Challenges
- Language Access Challenges

Relationships between the Parent Involvement and Support Needs factor and these three factors are direct and two-way (shown as a blue double line with double-headed arrows).



These bi-directional relationships are explained further in the Deaf Education Systemic Factors section.

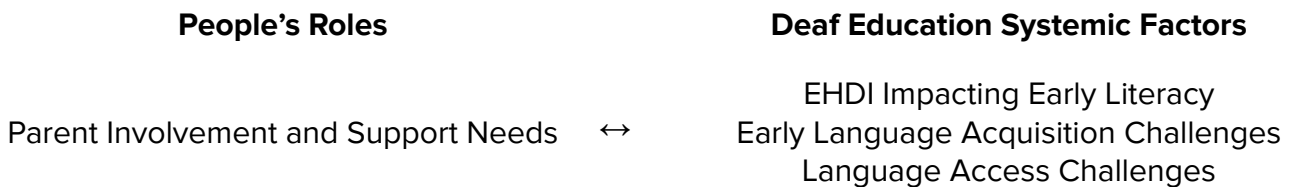
## Deaf Education Systemic Factors

The Deaf Education Systemic Factors model component (in black on the right) consists of four different factors (each represented by blue rectangles):

- EHDl Impacting Early Literacy
- Early Language Acquisition Challenges
- Language Access Challenges
- Assessment, Curriculum, and Instruction Challenges

All four factors, based on comments, indicate direct, two-way relationships with the two factors in the People’s Roles model component.

The first three factors are linked with the Parent Involvement and Support Needs factor in the People’s Roles model component.



Descriptions of these bi-directional relationships are detailed in the following sections.

### EHDl Impacting Early Literacy

The first factor in the Deaf Education Systemic Factors model component is the EHDl Impacting Early Literacy. This factor refers to a wide range of educational, medical, interagency, and community initiatives to support very young children who have been diagnosed as deaf or hard of hearing, their parents, and professionals who serve them (Early Hearing Detection and Intervention. [n.d.]. Retrieved September 13, 2022, from [www.mnlowincidenceprojects.org](http://www.mnlowincidenceprojects.org)) and their impact on these children’s language and literacy development.

Some respondents discussed different ways that EHDl impacts deaf and hard of hearing children’s literacy development. For example, there is a lack of comprehensive screening and detection systems that accurately identify children’s hearing status at an early age or provide appropriate early intervention services, which can hinder their language and literacy development.

Examples of responses related to EHDl Impacting Early Literacy:

*“For students whose hearing loss is detected at an early age, they still often lack the appropriate intervention and services needed before starting school. Therefore, when they start school, their*

*expressive and receptive language skills as well as literacy skills are typically significantly delayed compared to same-age peers ....”*

*“... I chose early hearing detection and intervention because I come from a state in which there is strong support for oral methods and cochlear implantations; however, students are detected later if they have “failed” in that system. School districts will then transfer students to the residential school that are behind on language, etc., potential ... Not providing alternatives (especially in our state situation) is detrimental to students achieving their academic, linguistic, and socio-emotional ....”*

## **EHDI Impacting Early Literacy ↔ Parental Involvement and Support Needs**

Respondents report that the EHDI system has limited appropriate EHDI programs, services, and resources. These limitations prevent families from supporting their young deaf and hard of hearing children. With a lack of understanding, misinformation, and limited options and services, families have limited abilities to find useful resources that support their communication with their deaf and hard of hearing children. So, in this way, because EHDI does not provide the support families need, families do not receive that support, and this impacts their deaf or hard of hearing children’s literacy skills development.

Examples of responses related to EHDI Impacting Early Literacy ↔ Parental Involvement and Support Needs:

*“... Some programs exist for parents of D/HH kids aged 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)*

*“... EHDI can be biased in some locations, approaches, or cultural assumptions. In some areas, what is given to parents may be heavily weighed by where the family or services are immediately located, which may skew offerings, especially if there are statewide programs in place. EHDI personnel seems heavily skewed to these [types] of medical/education professions, which more often than not focuses on the disability first and the individual second, and could benefit from more inclusion of professionals who are non-medical/education experts but do work that includes/impacts individuals with disabilities (for instance, in linguistics or in sociology) as well as those who have “lived the life”—have gone through the EHDI or D/HH education process themselves as family or children. This could provide a more nuanced scope and scale for parents of newly identified children to better soothe their concerns for their children’s future as well as make better determinations for the child’s path to adulthood. Personnel involved in EHDI may, in the process of consulting with the family, favor one method over the other(s), or completely dismiss one or multiple methods without giving parents the data/choice to decide. EHDI can also serve as a sort of arbiter for the parents, which takes away discretion over their child’s upbringing and can also lead to other programs/institutions taking the same role later on in the child’s life. Some determinations seem to use cultural or societal assumptions as a critical factor, as opposed to the child’s needs, in determining the path to take, which may create conditions where the child/family “fits in” but also places the child at heightened risk of falling behind academically/socially due to barriers to language/education access or societal/emotional/skill development ....”*

Also, some parents do not get a full spectrum of options from EHDI resources and services, and they receive inappropriate information and support from EHDI professionals who have biases about language development and early intervention. A few examples highlight these issues:

*“... Parents do not get a full range of options from providers, but often get what the provider knows or supports themselves. Thus, parents are not always informed consumers for their infants. This affects the education of their children as they age through the system....”* (professional)

*“In my area, as far as I know, the early hearing detection process works well. But the birth to three organization does not employ or contract with a teacher of the D/HH, any Deaf Mentors, or SLPs with a background in hearing loss. This greatly impacts the families’ awareness of the full continuum of language opportunities and resources available to them. By the time the child is ready to transition toward school-based services at 2.5-3yrs old, all too often the child does not have a language foundation/L1. Understandably, this impacts the progress of the rest of their schooling. Even with a great 3-5yr old program, they are rarely kindergarten ready....”*

## **Early Language Acquisition Challenges**

The second factor under the Deaf Education System Factors model component is the Early Language Acquisition Challenges factor, which is defined as the language development of a deaf or hard of hearing child who acquires one or more languages at an early age. This is important because deaf and hard of hearing students’ literacy potential and academic achievement are dependent on their early language acquisition and language foundation, as shown in the survey responses. Respondents discussed the need for families to interact and use language with their deaf or hard of hearing children during the early years to ensure these children develop age-appropriate language and knowledge by the time they begin preschool. These children frequently enter preschool needing additional language learning. In these cases, teachers may find themselves providing more language and literacy development support so that these children can begin learning age-appropriate words and concepts. However, this kind of support may be required throughout these students’ progression through the school years. Specialized teacher training and evaluations in supporting deaf and hard of hearing students’ developing language and literacy skills may be needed as early as preschool. Without a strong, early language and literacy foundation, deaf and hard of hearing students may find themselves struggling with learning, achievement, and socio-emotional development.

Examples of responses related to Early Language Acquisition Challenges:

*“Many of the students we serve in preschool come to us delayed in language and age-appropriate vocabulary. Even those in elementary school mostly use simple sentences in their everyday language. We rarely see children using compound or compound complex utterances in most of the students we serve even though in children with typical language development in any language they are using these structures before they enter kindergarten. If children are not using the vocabulary and sentence structures, they will never be able to read them later on. For students learning spoken English as a first language, there are plenty of assessments to use to track their vocabulary and language*

*development. Unfortunately, this is not true in ASL. We need more training and evaluations for teachers in the early years to teach language in a systematic, intentional manner to ensure all students enter kindergarten with age-appropriate language and vocabulary. Once that happens, we should see changes in academic development and literacy skills.”*

*“... The deaf children are not living up to their potential because they don’t have strong language skills. This causes behavior problems, low test scores (sometimes misdiagnosed as cognitive impairment), minimal reading abilities, and later impacts employment opportunities....”*

### **Early Language Acquisition Challenges ↔ Parental Involvement and Support Needs**

A bi-directional relationship between Early Language Acquisition Challenges and Parental Involvement and Support Needs is also noted based on responses. The Early Language Acquisition Challenges factor influences the Parental Involvement and Support Needs factor. For example, some challenges that families and parents experience include minimal to no communication at home and a lack of language exposure for deaf or hard of hearing children.

An example of responses related to Early Language Acquisition Challenges ↔ Parental Involvement and Support Needs:

*“... If a child has no language at home (i.e., parents don’t sign + the student doesn’t have access auditory input) AND the first 5 years of their life [are] focused on auditory training instead of exposure to pre-academic skills, then they enter preschool or kindergarten with virtually NO language and very little foundation of cognitive development on which to build.” (professional)*

Parental involvement also has a significant impact on their deaf or hard of hearing children’s early language development. This includes how parents support deaf and hard of hearing children’s early language acquisition, learning at home, and development of various literacy skills (e.g., math). Several comments clearly highlight this relationship:

*“Parental involvement is critical for a child’s education. The foundation for a child’s language begins at home. I’ve seen success from students who have parents (deaf or hearing) that are actively involved. We assume that if there is communication at home, a child will have language. I disagree. I have students with Deaf parents who have excellent communication skills, but the students are delayed. The parents are not actively involved with them....” (professional)*

*“... 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. I think for deaf kids, language, ASL or English, acquisition can be a challenge which puts them behind in literacy.”*

Parents also need information and resources so that they can better support their young deaf or hard of hearing children’s early language acquisition. An example of a response:

*“... More support for family is needed, especially hearing families who in turn can support their children utilizing ASL for language/communication/literacy which starts at HOME! ...”*

## **Language Access Challenges**

The third factor under the Deaf Education System Factors model component is Language Access Challenges. It is defined as providing various ways for individuals to be able to receive, interact, and express themselves in the language(s) best suited to them. For this section, some respondents discussed how deaf and hard of hearing students experience challenges that include minimal to no access to the following:

- Language models
- Native or first language exposure
- Visual language
- Social language environment
- Types of interactions with various groups

These challenges may impact deaf or hard of hearing students' literacy and language development.

Examples of responses related to Language Access Challenges:

*“So many of our students are exposed to ASL either too late for natural L1 acquisition, or they are exposed only at school with little to no communication at home. Our students' continued lack of normal exposure continues to impact their achievement and ability to move from the concrete to the abstract ... Learning English without phonemic access is already extremely difficult. The research shows that acquiring an L1 too late will impact achievement. We need consistently early and consistently available language access for our students, a better way to provide our students [with] access to written language, and support and curriculum for teaching late language learners....”*

*“Lack of access to an appropriate L1 language = difficulty in varying degrees in achieving academic, linguistic, and social-emotional potential.”*

## **Language Access Challenges ↔ Parental Involvement and Support Needs**

A bi-directional relationship is noted between the Language Access Challenges factor and the Parental Involvement and Support Needs factor. Respondents shared that deaf and hard of hearing children lacking access to an appropriate first language will face difficulties in reaching their academic, linguistic, and socio-emotional potential. When families struggle to successfully use and/or learn language(s) appropriate for their deaf or hard of hearing children during the first few years, these children may arrive at school with a weak language foundation that impacts their ability to meet age-appropriate and grade-level expectations. However, if families receive support from schools or other groups with their efforts to use language with their deaf or hard of hearing children, these children may develop language and literacy skills more quickly. Also, these parents may, in turn, be more involved with their children's schools. Not addressing these challenges can impact deaf and hard

of hearing students' ability to interact with their peers, family members, and members of their communities.

Examples of responses related to Language Access Challenges ↔ Parental Involvement and Support Needs:

*"I think language and communication or, to be exact, the LACK of language and communication, hinders the child's learning process. The child arrives at school with no internal language and already has a huge barrier to overcome. Too often, they are put in a classroom and expected to learn to read and write right away. There needs to be a focus on internal language development - how? Through interactive communication which is best on a 1-1 basis (same idea as mother and child interaction). Storytelling, discussion, doing things together and discussing them, etc. Literacy is equally important, but there needs to be language first. And teachers need to be trained appropriately HOW to teach literacy. Family involvement and support are important, too. If schools provide that family support, research has shown that the child succeeds better with involved parents than without involved parents."*

*"... They cannot communicate with their families and their home communities, as they are surrounded by spoken language users. It's frequently the case that due to the child's hearing loss/background/comorbidity that they are visual language users and thrive in visual environments; however, the focus of the child's family has been on using hearing and spoken language. For that reason, the child may become language deprived, leading to extremely delayed academics and social behaviors." (professional)*

Some respondents commented that families do not use the language that is best suited to their deaf or hard of hearing child and, as a result, provide limited language access. A few examples highlight this issue:

*"... Many parents are not taught the difference between language and speech. They will delay "allowing" their child to be exposed to ASL. Students tend to have to be 'oral failures' before ASL is considered, and by then the critical language learning period is passed. Visual language is not often used or reinforced in the home. Students have a very diminished access to everyday language, which hampers their understanding and knowledge of the world, which negatively impacts their ability to access or understand grade-level content."*

*"... We have difficulties getting our hearing parents to learn ASL, thus keeping their child at a language delay during the time the child is with parents and not in a signing environment. This, of course, stunts the deaf child's language development and their ability to communicate with family members, school faculty, peers, and the community at large. Children who do not have a strong language base struggle to learn to read or express themselves using English or ASL...."*

Some respondents shared that parents of deaf or hard of hearing children are not always as actively involved as they could be by exposing them to different kinds of literacies (e.g., reading) and supporting their academic and language exposure needs via socializing with different communities,

which some respondents tied to meeting the language needs of their children and meeting developmental milestones.

Examples of responses related to the influence of Parental Involvement and Support Needs on Language Access Challenges:

*“From my experience, in our community, parents do not appreciate the need to give their children access to language. Students enter school light years behind their “peers” due to having almost zero access to language acquisition and exposure to common real-world awareness that their hearing peers have during the formative years prior to school. Parents don’t encourage a love of reading, nor do they require their children to read at home. Most students I work with have never had a book “read” to them by their parents....”* (professional)

*“... Deaf schools or schools with DHH resources can only do so much. It requires educating the families the moment the child has been identified deaf and developing a relationship between DHH programs and families to build a strong rapport. Lack of these foundations acts as a barrier to DHH children from achieving their academic, linguistic, and social-emotional potential....”* (professional)

Some respondents discussed the impact of resources and legislation that influence families’ understanding of how to be involved with their deaf or hard of hearing children. Some examples of responses:

*“I’ve met families that want to learn ASL, but they can’t find anywhere to take classes or they can’t afford classes. I often refer families to online resources, but I don’t want to pay for an online class just to see if I think it’s a good class or not. I think families could also use ASL classes that focus on what young children and parents do. This way the families could learn vocabulary that is relevant in their child’s world and then expand on that. I know the child’s literacy would improve if they had more communication at an early age, at home....”* (professional)

*“We need more ASL-English information for deaf education to support our children who are using the ASL and English track. WE also need Deaf history information and role models for students who may not be able to go to a deaf school and need to attend a public school with or without a deaf program/services. We need to help parents understand how policy and legislation affect their child’s education. WE need to update regulations in the IEP/504 evaluations to qualify a student for placement. I am frustrated that the local education agency has interpreted the LRE to fit their needs. We need to separate from special education so deaf students do not fall in the cracks because the school is trying to keep their ratio for services under a certain amount.”* (professional)

### **Assessment, Curriculum, and Instruction Challenges**

Assessment, Curriculum, and Instruction Challenges is the fourth and last factor under the Deaf Education Systemic Factor model component. Assessment refers to the evaluation of deaf and hard of hearing students’ language development and academic achievement. Curriculum is an academic program or series of lessons designed for deaf and hard of hearing students. Instruction is a process of

teaching and engaging deaf and hard of hearing students with various subject content. Based on the survey responses, the Assessment, Curriculum, and Instruction model component discusses three areas of challenges:

- Failure of placement and assessment to meet the needs of deaf and hard of hearing students
- Issues where curriculum and programs are not provided, designed, or developed to meet deaf and hard of hearing students' academic (e.g., math) or literacy needs, such as reading programs
- Recognition of schools and professionals facing different barriers, such as diverse language needs, limited time, ineffective instruction pacing, inadequate educational practices, limited information, and limited strategies and approaches regarding deaf and hard of hearing students' literacy and academic development

The Assessment, Curriculum, and Instruction Challenges factor has a direct, two-way relationship with the Professional Knowledge and Mindset factor in the People's Roles model component.

### People's Roles

### Deaf Education Systemic Factors

Professional Knowledge and Mindset

Assessment, Curriculum, and Instruction Challenges

Examples of responses related to Professional Knowledge and Mindset ↔ Curriculum, Instruction, and Assessment Challenges:

*"... Teachers do not always know what curriculum is best, how to teach literacy, and how to assess effectively to catch them up..."*

*"... There is a push for DHH students to be mainstreamed, but it is not always appropriate. If they are, they are often not transitioned well. Many don't know how to properly use an interpreter, or how to facilitate communication with peers. Teachers are being forced to provide grade-level content and are, therefore, unable to focus on the actual needs of our students. There is no designated time for language learning in the classroom—specifically ASL, their natural language. Many times, the district will test them on ASL skills and find that they are not sufficient, yet we never formally taught them ASL. ASL and English need to be treated as independent languages. Set a part time for ASL and English. Appropriately use code-switching and teach the students when you are using which. This will help facilitate and promote literacy..."*

*"There is a lack of established criteria for educating Deaf [students]; it's more complex than simply applying the general education curriculum in ASL—Deaf are visual learners, and there isn't always direct English/ASL vocabulary correlation. Not all students are taught by proficient ASL users; there is not a universal standard for ASL proficiency for education interpreters of teachers of the deaf. English*

*is a second language to these Deaf students; more focus needs to be on connecting concepts to the English words to encourage a love for reading....”*

Assessment challenges include professional decision-making factors, such as the failure of placement and assessment. Responses include:

*“... Students with IEPs due to hearing loss comprise only 1% of all students with IEPs. Eligibility assessment teams are not tailoring evaluations to identify the areas most vulnerable and relevant, impacting educational performance of these students. Low average on a language measure and seeming to ‘be okay’ in the classroom is not an appropriate eligibility assessment. The move to full inclusion has reduced the continuum of alternative placements/services available to students with hearing loss. Increasingly, regardless of their level of educational delay, students are being served wholly by push-in services or inadequate levels of itinerant DHH teacher support. Developing skills along the auditory hierarchy, understanding of hearing loss, use of hearing technology, and self-advocacy cannot be taught in the push-in model. These are expanded core skills that allow the students to function, and fully participate, in the general ed curriculum....”*

*“... Often, these agencies evaluate the needs of children based on to what capacity that agency can serve the children as opposed to evaluating for what the child actually needs. These biased assessment practices undoubtedly bar DHH students from achieving their academic, linguistic, and social-emotional potential....”*

A second professional decision-making factor includes curriculum that may not be appropriate for use with deaf and hard of hearing students. Some examples include:

*“Literacy is my biggest concern. As a teacher at a public school with a DHH program, the curriculum we receive from the district is not always beneficial. The reading curriculum is heavily phonics based for the primary grades. The writing curriculum is also heavily based on phonics as well as student experiences that require higher language levels....” (professional)*

*“... Schools often teach to the state standardized test, and this does not prepare students for postsecondary opportunities. Also, there is no scaffolding/spiraling from one year to the next. Kids take one step forward, 2 steps back each year....”*

*“Many public school programs and deaf school programs have a weak curriculum that leaves students functioning at levels that often max out at 1<sup>st</sup> or 2<sup>nd</sup> grade levels regardless of their age ... Literacy is not stressed or advanced aggressively to prepare students for reading above a 3<sup>rd</sup> grade level.”*

A third professional decision-making factor includes professionals’ knowledge and use of instruction and strategies that are appropriate for deaf and hard of hearing students. Several respondents commented:

*“... Regarding language and communication and literacy, these go hand-in-hand and are arguably the most critical barrier to success I see with students. 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. Also, using strategies for Executive Function skills dysfunction (from Sarah Ward, SLP, among others) and for visualizing and Verbalizing (Lindamood-Bell) has helped immensely. However, it seems that there is not possibly enough time in each instructional day to catch up the literacy skills needed for content!” [professional]*

*“The pace of instruction set for gen ed students which we must follow for our D/HH students is absurd. After a short amount of time, teachers are required to move on to the next standard without any mastery of the one taught. Students do not have a foundation for further skills. In addition, so much time is spent on administration of progress monitoring tests (i-Ready) that there is a lot of lost instructional time. Taking progress monitoring tests on grade level does not help with guiding instruction because we already know students are struggling...”*

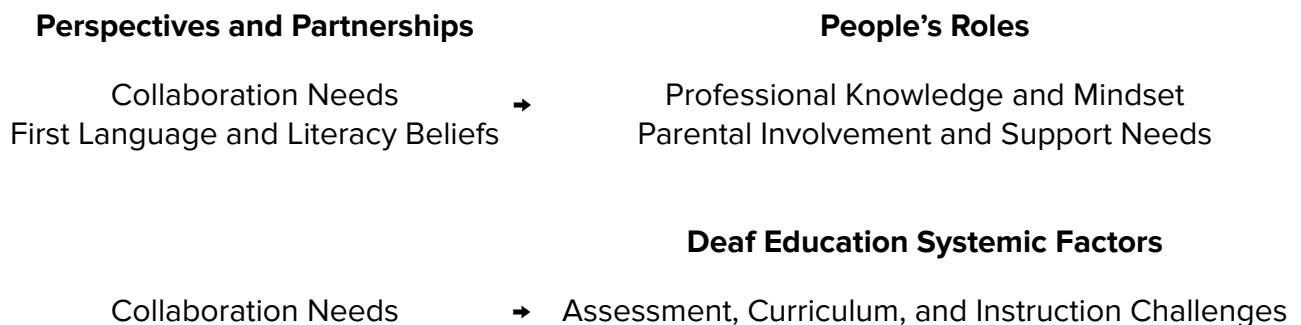
Deaf and hard of hearing students’ literacy development is impacted by professionals’ knowledge and mindset in several ways, such as making decisions about assessment and placement, curriculum, and instruction that may not be the best fit for deaf or hard of hearing students. Some of these decisions are influenced by professionals’ level of knowledge and experience working specifically with these students.

### **Perspectives and Partnerships**

The bottom left text box in black represents the third model component, Perspectives and Partnerships. This component has two factors:

- Collaboration Needs
- First Language and Literacy Beliefs

These two factors are defined as external factors. They have a direct relationship with the factors in the other two model components, People’s Roles and Deaf Education Systemic Factors.



These relationships between the Perspective and Partnerships model component and the other two model components are one-way. These relationships are shown in yellow, meaning that these relationships have an indirect impact on deaf and hard of hearing students' language and literacy development.

### **First Language and Literacy Beliefs**

The First Language and Literacy Beliefs factor discusses beliefs and misconceptions held by professionals and parents regarding how deaf and hard of hearing children acquire language and how their learning of one or two languages is tied in with literacy development.

Respondents discussed how some beliefs vary on acquiring one or both languages, be it ASL or English, and how they may positively or negatively affect the literacy development of deaf and hard of hearing students. For example, some parents and professionals believe that for appropriate language acquisition, deaf and hard of hearing children should learn only English without the influence of ASL. On the other hand, there are others who believe that ASL should be included to support language development. The following three comments demonstrate the various beliefs.

One respondent, who supports ASL as the first language to benefit Deaf children's language development, said:

*"... Key is reading and writing; [...] should be benefited by ASL [as a] first language...."*

Two other respondents, who think learning ASL negatively impacts deaf children's reading and writing in English, said:

*"...Literacy—especially for our children who use sign communication. In my part of the country, we see kids who use sign command continue to be stuck at a 4<sup>th</sup>-5<sup>th</sup> grade reading level...."*

*"The understanding that learning English is not an option and deaf and HH students need full exposure to English language acquisition from birth to early elementary ages (3<sup>rd</sup> grade) instead of an ASL-only approach. English is the academic language of school, and it is CRITICAL that deaf/hh children learn English as [their] FIRST language. When a deaf/hh student learns English first, it is very easy to learn ASL at a later age when [the child] has a foundation of language. The reverse is not true—when a deaf/hh child learns ASL as the first language, it is incredibly difficult for them to learn the English language necessary for the literacy skills of reading and writing. STOP the historical 'oral/aural' argument and please consider the children!!!!"*

The First Language and Literacy Beliefs factor under the Perspectives and Partnerships model component is related to two factors within the People's Roles model component: Professional Knowledge and Mindset and Parental Involvement and Support Needs. The relationships are illustrated below.

## Perspectives and Partnerships

## People's Roles

First Language and Literacy Beliefs → Professional Knowledge and Mindset  
Parental Involvement and Support Needs

These relationships are described in the following sections.

### First Language and Literacy Beliefs → Professional Knowledge and Mindset

Some respondents discussed that some professionals believe using two languages (e.g., ASL and English) bilingually is an inappropriate approach for deaf and hard of hearing students and creates barriers to their reading and writing skills. Additionally, some professionals may have specific beliefs or understanding about literacy teaching.

Some examples of responses related to First Language and Literacy Beliefs → Professional Knowledge and Mindset:

*"... Language and communication—Misconception that exposing children to ASL will negatively impact their ability to learn and become fluent in English (reading and writing). Literacy—Lack of 1<sup>st</sup>, true language causes struggles and delays in acquiring a second language (for many DHH children, English is a second language). Often having to go through an interpreter rather than working with a professional fluent in visual language. Often the direct service personnel are not able to communicate effectively with children (or parents who are themselves DHH) and are also not familiar with Deaf culture and the Deaf experience (Deaf history, norms of behavior, audism, oppression, discrimination, etc.)."*

*"Language and communication can be a huge barrier, particularly because DHH students must learn two languages in order to read and write which are two necessary skills for success in school. So many people do not realize this. Literacy is directly tied to that, and if DHH students are expected to perform at the same level as students who have grown up with English and are reading, writing, and completing assignments in English, the DHH students are at a complete disadvantage. When people don't recognize that DHH students must work harder to learn a second language, they may think DHH students are performing at a lower level when in fact they are working twice as hard."*

### First Language and Literacy Beliefs → Parental Involvement and Support Needs

Responses below indicate various language beliefs of professionals and how these beliefs may influence how parents support their deaf or hard of hearing children's literacy and language development and how students' needs are met.

*"For my students at a Deaf school, most were mainstreamed oral growing up and learned sign language later. They were deprived of language and literacy from an early age, and doctors told parents that their children would not be successful unless they were implanted and spoke English."*

*“... In my opinion, each of these can be traced to the medical community’s ignorance about the education of deaf children. Babies or young children “fail” a hearing test? Give them cochlear implants. Tell their family members that teaching them sign language will hinder their education, while, on the contrary, the opposite has proven true. Give Deaf babies and young deaf children language, especially a signed language which is the comfortable, natural, visual language for deaf children, and give them literacy. ...”*

First Language and Literacy Beliefs influence both parents and professionals’ understanding regarding language acquisition and development, which as a result impact deaf and hard of hearing students’ ability to succeed academically, linguistically, and socio-emotionally.

### **Collaboration Needs**

Collaboration means individuals or groups working together to achieve specific goals. Respondents shared that professionals, deaf programs, families, and schools need to collaborate effectively on how to improve and support deaf and hard of hearing students’ literacy and academic achievement. Potential collaborators include schools, parents, and various communities. An example of a response related to Collaboration Needs:

*“... There could be more involvement by the community overall to address educational needs of all children rather than expecting basically one institution to meet the needs of the entire deaf and HOH childhood community.”*

The Collaboration Needs factor is linked to two factors in the People’s Roles model component and one in the Deaf Education Systemic Factors component:

#### **Perspectives and Partnerships**

Collaboration Needs →

#### **People’s Roles**

Professional Knowledge and Mindset  
Parental Involvement and Support Needs

#### **Perspectives and Partnerships**

Collaboration Needs →

#### **Deaf Education Systemic Factors**

Assessment, Curriculum, and Instruction Challenges

Each of the three relationships is explained below.

### **Collaboration Needs → Professional Knowledge and Mindset**

One example indicated a need for professional collaborations focused on the education of deaf and hard of hearing students.

*“... Collaboration among the professionals can enhance the educational opportunities for the child.”*

### **Collaboration Needs → Parental Involvement and Support Needs**

Another collaboration need involves partnerships between families and schools.

*“Collaboration between families and school staff is critical ... We all need to work together to achieve the best possible outcomes for our students.”*

### **Collaboration Needs → Assessment, Curriculum, and Instruction Challenges**

A few respondents highlighted the importance of sharing information and resources, including materials and curriculum between schools, which is necessary to help deaf and hard of hearing students achieve their full potential. For example, two respondents commented:

*“Collaboration is the issue among schools. Many schools are SERIOUSLY in need of materials and resources. Often, if we are in training, we tend to receive the resources, but we are likely being told that we need to make one or cannot share their resources due to contract, etc. ...”*

*“... Deaf educators need to share curriculum and successes in education. ...”*

Perspectives and Partnerships play a significant role in the education of students who are deaf or hard of hearing. The beliefs and the commitment of professionals and parents to come together impact their understanding and ability to address the needs of deaf and hard of hearing students, and, in turn, make a significant difference in their language and literacy development.

## **Deaf and Hard of Hearing Students’ Language/Literacy Development**

The fourth model component (in black text) at the bottom is Deaf and Hard of Hearing Students’ Language/Literacy Development. This component is influenced by three key model components:

- People’s Roles, highlighting the critical roles of professionals and parents
- Deaf Education Systemic Factors, which encompasses the overarching educational structures and methodologies
- Perspectives and Partnerships, emphasizing shared beliefs and joint efforts of all stakeholders involved

Together, these elements shape the language and/or literacy development experiences and outcomes for students who are deaf or hard of hearing. Examples of survey responses:

*“The following barriers continue to prevent students who are deaf/hard of hearing from accessing curriculum and achieving their fullest potential in school: 1.) There is a critical shortage of ASL-certified interpreters and highly qualified certified teachers of the deaf/hard of hearing. 2.) Minimal resources.*

3.) A lack of collaboration among all stakeholders. 4.) Parents of students who are deaf/hard of hearing are still less involved with their children.”

*“The lack of a comprehensive system that identifies children with a hearing loss or who are deaf prohibits immediate access to communication and language development. This creates the delay of language which impacts literacy, thus impacting all other aspects of their academic and often social development. There are less and less people who understand the potential of deaf individuals to learn at high levels, simply in different ways. Educated people in different areas simply do not know what they don’t know and make poor decisions for and about the field of deaf education.”*

## **Conclusion**

The Literacies model discusses different factors that impact the development of deaf and hard of hearing students/children’s language development and literacies, which include not only reading and writing skills but also scientific and mathematical literacy and Deaf culture studies. These systemic factors play a pivotal role in shaping the educational experiences and outcomes of students who are deaf or hard of hearing. Together, they present a multifaceted landscape of both challenges and opportunities, requiring thoughtful navigation by professionals, families, and the students themselves. They play significant roles in deaf education and practices and, in turn, impact deaf and hard of hearing students’ language development and literacy potential.