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ODYSSEY • CLERC CENTER MISSION STATEMENT

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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About the cover: Early identification, family involvement, teacher/staff investment, support services for child and family, peer group support, and accommodations for families who use a language other than English in the home are some of the many factors that contribute to deaf and hard of hearing students' success, both in the classroom and throughout life.

We would like to thank all of our student, teacher, and staff models from the Clerc Center for their assistance in illustrating this issue.





DIRECTIONS IN DEAF EDUCATION

VOL. 18 • 2017

FEATURES

- LETTER FROM THE VICE PRESIDENT
 By Ronald Stern
- THE EARLY YEARS: PARENTS AND YOUNG DEAF CHILDREN READING TOGETHER
 By Lori Lutz
- EARLY CONTACT, LANGUAGE ACCESS,
 AND HONORING EVERY CULTURE:
 A FRAMEWORK FOR STUDENT SUCCESS
 By Rosemary Gallegos
- REFLECTIONS ON SUCCESS FROM A HIGH SCHOOL GRADUATE

 O&A with Diane Fleming
- MASSACHUSETTS OFFERS TRILINGUAL
 READING SATURDAYS TO INCREASE
 READING SKILLS AND CONFIDENCE
 By Kathleen M. Vesey
- HIGH SCHOOL STUDENTS
 WITH COCHLEAR IMPLANTS:
 COMING TOGETHER FOR SUCCESS
 By Debra Nussbaum, Genie Chisholm, Rebecca
- CAMP INVENTION ASL: INCLUSIVE,
 RELEVANT, FAMILY-FOCUSED SCIENCE
 By Joseph Santini

Galloway, Venita Dzime-Assison, and Jane Doyle

- SUPPORTING DEAF AND HARD OF HEARING PRESCHOOL STUDENTS' EMERGING ASL SKILLS: A BILINGUAL APPROACH
 By Julie Mitchiner and Michelle Gough
- FAMILY SUPPORT MAKES A DIFFERENCE
 WITH A DEAFBLIND CHILD: ORION'S
 JOURNEY

By Heather Withrow

- FROM THE WORLD'S TROUBLE SPOTS THEY
 ARRIVE IN OUR CLASSROOMS: WORKING
 WITH DEAF REFUGEES AND IMMIGRANTS
 By Pamela Wright Moers
- SUCCESS IN TWO LANGUAGES: FOCUSED PROGRAMMING PROVIDES ON-TARGET DEVELOPMENT FOR MAINE PRESCHOOLERS
 By Karen Hopkins















- SUCCESS THROUGH DANCING: TEACHING SKILLS AND AWAKENING YOUNG SOULS By Tara Miles
- FIVE FACTORS LEADING TO DEAF AND HARD OF HEARING STUDENTS' SUCCESS: PERSPECTIVES OF A VETERAN TEACHER
 By Kelly K. Metz
- MEASURING SUCCESS ONE (SIGHT)
 SYLLABLE AT A TIME
 By Christopher Hayes
- WITH STRONG ROOTS CHILDREN SOAR:
 THE STORIES OF TYESE AND MICHELLE
 By Barbara Hunt
- A CURRICULUM FOR ASL: EMPOWERING STUDENTS BY GIVING THEM OWNERSHIP OF THEIR LEARNING

 By Melissa P. Herzig
- COMMUNICATION AND LANGUAGE EXPOSURE KEY TO SON'S SUCCESS:
 A MOTHER REFLECTS
 By Brenda Perrodin
- ADVANCING ENGLISH LITERACY BY IMPROVING ASL SKILLS: A RESIDENTIAL SCHOOL'S QUEST

By David Dolman and Laurie Rook

THE BACK PAGE: HIGH EXPECTATIONS
AND SUPPORT A CATALYST FOR STUDENT
SUCCESS

By Roberta J. Cordano

CLERC CENTER NEWS

- 85 K-12 ASL Content Standards Update
- **85** Gallaudet Alumna Ann Tennis Creates
 Endowment Fund to Support the Clerc Center
- **86** MSSD Unveils New Residence Hall with DeafSpace Design Principles
- **87** Seeking Submissions for the 2018 Issue of Odyssey

Ò.

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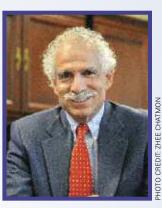
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LETTER FROM THE VICE PRESIDENT

200 Years of Deaf Education and Student Success

This year we celebrate a significant milestone in the field: 200 years of education of the deaf in the United States. In April 1817, the American School for the Deaf in Hartford, Connecticut, enrolled its first student, and the two people most associated with that historic event—Laurent Clerc (the first teacher) and the Rev. Thomas Hopkins Gallaudet (a co-founder of the school)—are vividly remembered today, commemorated in the names behind this publication of Odyssey. I am proud to bring you this issue with the theme of student success and to dedicate it to everyone who has been involved in the field from 1817 through 2017.



How far our education has progressed and evolved is astonishing in the context of student success today. In 1817, success was defined as getting privileged deaf students in class primarily to ensure literacy and speech. Today for our incredibly diverse student population, success is much more comprehensive relative to the individual student. We know the success of our students is uniquely contingent upon their placement in an environment that is authentically people- and language-rich, where they can thrive as engaged learners and full-fledged human beings.

Furthermore, since the days of Clerc and Gallaudet, deaf education—and the success of alumni everywhere—has transformed deaf life. Today we have educators, administrators, researchers, service providers, networks, tools, and a deeper conviction than ever before that each deaf and hard of hearing child is as capable of success as anyone else. Together, there is so much we have done to ensure the optimal development of each child's human potential.

Student success has been a persistent theme throughout my four decades in the field. I would like to thank our contributors for their remarkable stories, and I invite you to continue the dialogue on Facebook and Twitter with the hashtags #ClercCenter and #DeafEd. You are also welcome to share your thoughts and comments with us at Odyssey@gallaudet.edu.

Congratulations to us all on our 200 years of progress in education of the deaf! We certainly have come a long way, yet there is much more that needs to be done. I look forward to the Clerc Center's continued partnership with you and the deaf education community towards ensuring student success.

Onward!

—Dr. Ronald Stern

Vice President Laurent Clerc National Deaf Education Center Gallaudet University



Lori Lutz, PhD, is director of Research and Evaluation at Gallaudet University's Laurent Clerc National Deaf Education Center in Washington, D.C. Her work involves oversight and monitoring of federal reporting requirements, public input processes, performance and evaluation components of the Clerc Center's strategic plan projects, and research management and collaboration activities. In her 17 years in the field of deaf education, Lutz has conducted evaluations of training and products, program implementation processes, and dissemination activities designed for parents of deaf and hard of hearing children from birth through high school as well as the educators and professionals who work with them. She welcomes questions and comments about this article at lori.lutz@gallaudet.edu.

The Early Years:

Parents and Young Deaf Children Reading Together

By Lori Lutz

Research is just beginning to describe the role of reading in the lives of families with deaf children (Swanwick & Watson, 2007). While the time that deaf children spend reading or being read to represents only a small part of their lives at home, research highlights its importance for young children—hearing as well as deaf. Children whose parents read to them at home develop reading and literacy skills before they enter school (Akamatsu & Andrews, 1993; Clay, 1979; Maxwell, 1984; Sulzby & Teale, 1996). When children are read to during their first five years, they develop several areas of understanding: they learn that print has meaning; they develop a knowledge of letters, including phonological awareness; and they glean knowledge of words and vocabulary (Evans, Shaw, & Bell, 2000; Goswami, 2001; Sénéchal & LeFevre, 2002; Sénéchal, LeFevre, Hudson, and Lawson, 1996; Whitehurst & Lonigan, 1998).

Diverse, Complex Lives

Families who read with their young deaf children incorporate this activity in their complex and busy lives. Most parents work, raise their children, and socialize with others in a variety of communities (e.g., school, work, church, neighborhood). Parenting a deaf child often means also meeting and working with early service providers, early childhood education teachers, and professionals at home and in schools, hospitals, and medical offices.

Reading to children may appear to be a challenge to parents whose children are deaf (Gioia, 2001). Most hearing parents are not expecting their child to be deaf and,

Photos by Cat Valcourt-Pearce Illustration courtesy of Lori Lutz



Left: Children whose parents read to them at home, especially during their first five years, develop reading and literacy skills even before they enter school.

therefore, are not immediately prepared to think about their deaf child's access to language (Marschark, Lang, & Albertini, 2002). Hearing parents who read with their deaf children often pursue a more conscious, deliberate activity since a shared language is needed for them to read together. Perhaps this makes the activity even more important, whether it's a bedtime routine or a spontaneous read-aloud of labels in the grocery store. Reading is not only about learning; it is a shared and social experience.

Hearing Parents, Deaf Children

Lutz (2013), in a study of families of six young deaf children, focused on factors that helped and hindered their reading together. The parents and their children's teachers were interviewed, and from these interviews, individual children's journeys to becoming readers were described. Reflections shared by parents and teachers provided a glimpse of children's early literacy experiences at home and at school.

Each of the six families talked about reading with

The children's reading through their parents' and teachers' eves ...



Jennifer – Beginning independent reading



Sean – Putting sounds and letters together



Rebecca - Beginning sight reading



reading



Chris - Independent reading at school, and shared reading at home



Sara - Reading

their deaf child. The children, ages 5-6, included four girls and two boys (Jennifer, Sara, Rebecca, Lisa, Sean, and Chris*). All except Chris had cochlear implants. Parents reported use of both sign language and spoken language at home, particularly during the first one to two years of their deaf child's life, and their language for reading during those years was primarily sign language. Three children are currently attending public or private elementary schools in different states, and three children are attending schools for the deaf in their home states, although most of the parents had been involved earlier with multiple schools and programs during their children's first five to six years, either working with at least two early intervention programs or moving their children from one school to another.

These children were a diverse group of readers. One child was reading picture books, a few were sounding out letters and words during reading or beginning reading, and one was reading to learn.

Learning from Families

Parents, in sharing their stories, reported similar events that influenced their reading with their young children. These events included learning about their child's hearing level, selecting early intervention programs, choosing

language for communication and reading with their deaf child, and making decisions about including reading as part of their daily lives. Parents also talked about how their deaf children's schools were involved with their reading with their children. Experiences shared by families suggest the importance of the following activities for supporting parents' reading with their deaf child:

- · participating in an early intervention program early and regularly,
- participating in a shared reading program as part of early intervention
- recognizing or encouraging the child's interest in books, and
- using reading strategies and/or approaches.

Participating in Early Intervention

Five children were identified between birth and 4 months of age; however, one child was not identified through newborn hearing screening but by his mother who noticed her son did not respond to loud noises. The hearing level of the sixth child, Lisa, was not identified until she was 9 months old due in part to the parent's difficulties obtaining appropriate services, which

Left: Children are divergent as a group of readers, even within a very narrow age range.

meant Lisa did not have access to language for most of her first year of life.

Most families also participated in early intervention programs by the time their child was 6 months old. Chris's family did not. His mother reported that he was born with progressive hearing loss; this likely meant that he was not considered eligible for early intervention

Three of the six families went to two different early intervention programs, each with its own language approach, and one family participated in an early intervention program that provided parents with opportunities to learn and use both signed and spoken languages.

Three families said they spent many hours a week participating in early intervention programs, especially when their child was between 1 and 2 years old. These parents talked about having frequent and multiple home visits, home-based activities, school-based activities, presentations for parents, sign language lessons, and a variety of services (e.g., audio-verbal therapy). They decided to participate in these activities because they wanted to provide their deaf child with as much access to language as possible, both in American Sign Language (ASL) and in spoken English.

You can't decide for an infant how they're going to communicate and what skills they can have I mean, if they're spending so much time just trying to give them language, how are they ever going to get to the reading part? You know, reading is so dependent on so many other things falling into place and following each other that you can't-if you're playing catch-up, your child is 4 or 5 years old, can't even—doesn't even know their colors yet, I mean ... it just doesn't make sense because they haven't spent the time. I mean, we saw that. ~ Jennifer's mother (parent interview)

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Reading as Early Intervention

All parents indicated that they engaged in or tried to engage in reading books with their deaf child, and most also reported use of sign language as part of their book-sharing experiences. Experiences shared by parents, especially the parents of Sara and Jennifer, suggested a need for a home-based shared reading program in which an early intervention specialist, literacy specialist, or tutor visits the family at home, shares strategies for reading with deaf children, and teaches parents sign language using books. The benefits of participating in a shared reading program include:

- learning specific strategies for reading to deaf children,
- receiving additional and continued support for learning sign language for communication with their deaf children, and
- including shared reading as part of their home life.

Learning Strategies

The parents of Sara and Jennifer reported that they benefitted from learning strategies for helping their children learn to read, such as acting out stories, focusing on pictures rather than text to tell the story, and talking about environmental print. These parents pointed out and discussed signs and billboards, used books to explain life situations (e.g., doctor visits, going to the store), experimented with books to see which their children preferred, asked their children questions about the stories they read, and incorporated exaggerated facial expressions and speech inflections as part of their reading books aloud.

Jennifer's father explained, "We always try to really highlight the exclamations and the expressions, to use all the facial characteristics, and just try to emphasize/overemphasize a lot of what we find in a book."

Sara's mother noted, "Some of the deaf [adults] that we worked with were much better at ... pointing things out and

showing written words." After observing this, Sara's parents began to look for and talk with Sara about print in the environment and not just focus on books.

Sharing Reading at Home

As part of their involvement with a reading program, these parents read books with their deaf child, not only during the weekly home visits of a specialist or tutor but also as part of their bedtime routine. Jennifer's parents participated in a reading program as part of their early intervention services.

We started reading with her when she was probably about 2 or 3 months old. The [early intervention] program ... really, really stresses the reading.

Literacy is a huge buzzword out there.
(parent interview)

Jennifer's and Sara's parents' involvement with shared reading activities provided them with opportunities to learn and use sign

A shared language allows the parent to engage in a dialogue with the child using print in books and in the child's environment, and through this interaction the child learns that things in the environment have names and labels.

language, a new language, for sharing books, interacting, and communicating with their deaf child—the social, dynamic aspects that come with parents and children sharing books together.

A shared language allows the parents to engage in a dialogue with the child using print in books and in the child's environment, and through this interaction the child learns that things in the environment have names and labels.

Rebecca's mother noted the importance of sign language:

I think that having sign language was really important for [Rebecca] because it gave her access to some sort of language and access to labeling things, access to understanding that there were names for things and that there were colors ... otherwise she would have missed a whole year. (parent interview)

Support for Learning Sign Language

Participating in shared reading allowed parents to receive additional support from adult signers who came to their homes and showed them how to sign and use books while reading aloud with their deaf children; the shared reading programs also enabled them to watch videos of signers reading the same books aloud in ASL.

Sara's mother recalled the importance of seeing stories told in ASL:

We have a joke because there was this book about a boat. ... it had single words, just really simple sentences on each page. We're like, "Don't even need to see the video on this one. We can sign it." Towards the end of our week, we decided to look at [the video], and we were amazed at ... the classifiers and stuff that [the signers] were doing. We're like, "Wow. This is, like, the best video!" (parent interview)

Support from these shared reading programs seemed to enable these parents to not only include reading to their children as part of their busy lives, but



also to use language as part of the interaction with their child using books and environmental print. This made it possible for parents to continue learning and using sign language.

Recognizing and Encouraging the Child's Early Interest in Books

Parents' descriptions are based on their personal experiences of reading with their deaf child and comparing their experiences to reading with their other children. Early interest in reading was reported by parents of three children (Jennifer, Rebecca, and Sara). They noticed their children's early interest in picture books, using examples of behaviors such as intense attention, looking at pictures in books, and maintaining joint attention to both the book and the mother.

Rebecca's mother observed that Rebecca as a baby showed her interest by:

... just being willing to sit there and sort of look at you and clearly be engaged by something rather than, you know, wanting to bite my ear or do something else. And then, you know, as she got older, there's just sort of an active participation in the reading process. (parent interview)

Parents' observations are based partly on their experiences reading with their other children. Jennifer's mother related:

She always was interested in [books]. She never would, like, throw 'em or eat 'em or anything. Her brother did that. He didn't get interested in books until he was probably closer to 2 years old. (parent interview)

Rebecca's mother, who used spoken English for reading, also observed differences in interest in reading between her two children. She reflected:

I never really felt like I don't know how to read to [my deaf daughter]. Maybe

because she responded so well to everything. She's just a very engaged, an engaging little person. So maybe ... had it been [her sister] ... that had ... been born profoundly deaf ... I did feel more challenged with her and she could hear. (parent interview)

She continued:

Her [hearing] sister has a shorter attention span ... she, especially as a baby, was just not a book kid, and I would sort of ... for a while I got really

books. Jennifer's mother explained:

Reading with her was always so much fun. I mean, I just liked to do it. She was so interested in it, and she was so excited when she would get something right, you know, like especially those books that just have the pictures. And you know, the first time she signed "ball" and she said "ball" and stuff, it was just ... you know, it was really neat. (parent interview)

Their children's responsiveness



frustrated ... And then I just sort of was like ... she wants to go do different things, she can learn other ways. I mean, she's not as literate a kid as Rebecca is. (parent interview)

Sara's mother observed:

I know some parents were frustrated because their kids didn't want to sit still and look, and that was fortunately not really an issue for us. (parent interview)

These children's responsiveness (Sara, Jennifer, and Rebecca) made it possible for both children and parents to enjoy their experiences together involving

encouraged the parents to keep reading to them, thus possibly easing somewhat some of the challenges of sharing books using a new language (sign language) and ensuring the child understood the language as part of the parent-child interaction and the picture book itself. These parents' reflections show that the influence is not just one way—from the parent to the child—but also from the child to the parent.

However, early interest in books does not always mean the child will read early. For example, although Rebecca showed early interest as a baby, she now prefers activities other than books.

8

Rebecca's mother observed:

She would rather probably write before she would read, or make pictures before she would read, or build with LEGOs® or something like that before she would sit down and actually just read a book on her own. (parent interview)

Similarly, lack of early interest in reading does not preclude this interest developing later. Chris's mother, in fact, reported that her son had little interest in reading as a very young child, and that his interest emerged suddenly and spontaneously later. Chris's mother noted:

When he was really young, 1, 2, and 3 [years old], he had no interest.... He would just hop right back off your lap and leave. And so we were actually kind of frustrated... [We] were trying to just give him as much language as possible and he didn't... want to have anything to do with [books]. (parent interview)

However, this changed when Chris turned 3.5 years old, an event that took his parents by surprise. Chris's mother remarked:

He'd just basically throw a book in my lap and hop in my lap. "Okay, you're gonna read it to me." (parent interview)

These children are clearly their own little persons, exerting their influence, even at a young age, on their parents' efforts to share and read books with them.

Results of the Study: Insights and Hope

All of the parents in the study read with their children in an attempt to foster literacy development. While their efforts were personal—based on early interventions, shared reading undertakings, programs they attended, approaches suggested by professionals, and the interests of their unique children—many of the strategies they pursued were similar. The parents were

able to incorporate the understanding and enjoyment of printed words into their homes and their children's lives. They were also able to increasingly develop their skill in sign language. Hopefully, the result will be that Jennifer, Sara, Rebecca, Lisa, Sean, and Chris learn to read and write on par with—or ahead of—their hearing peers.

*Students' names are pseudonyms.

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Families and Deaf Children: 8 Strategies for Reading

By Lori Lutz

When the families of Chris, Jennifer, Sean, Sara, and Rebecca described reading with their deaf children, several strategies—some initially suggested by early intervention providers and reading specialists—emerged. Research suggests that parents' use of a particular language may be associated with specific types of reading strategies used with their deaf child (Swanwick & Watson, 2005, 2007). Some of the strategies below suggested for parents would benefit both deaf and hearing children, and some are tailored specifically for use with deaf children:

- 1. Use personal conversation and dialogue. With book in hand, ask questions such as: "What do you think will happen next?" Talk about the pictures and summarize the story.
- 2. Make reading dynamic. Parents used exaggerated facial expressions and speech as well as animated language. Sometimes they acted out stories, adopted characters, and imitated sound effects; other times they used the books as storytelling events.
- 3. Incorporate environmental print. Several parents encouraged their deaf children to read using recipes and menus and to check out road signs, billboards, and grocery food signs. Noted Jennifer's mother: "Reading isn't just [about] the book It's everything. It's opening up a whole new world."
- 4. Identify and choose books related to children's interest. Five parents talked about choosing books related to their children's interest and, in some cases, trying different topics before identifying their children's interest and choosing books.
- 5. Focus on letters and words to develop sight word recognition. Sean's mother described how she did this:

I will read [the word] first, and I will kind of sound it out, and then I will say, "Okay, now you read it to me," and then he will read it to me. And then I will have him read the next page or I will read one page and I will ask him to read the next page. And then if he gets stuck ... I will sound it out with him. So, I will sound out whatever word he is stuck on.

6. Select books slightly above the child's level. This strategy, presented by their early intervention specialist, was followed by the parents of Jennifer. Jennifer's mother explained:

We learned ... [to] stay ahead of [the child being read to] ... keep it moving forward, don't stay still.

- 7. Create a positive climate. Several parents said that it is important that their child enjoy the time they spend together reading. Reading to their children presented an opportunity to spend quality time together, not simply to work on developing reading skills.
- **8.** Incorporate school literacy. Parents talked about including school-based theme books as part of the bedtime reading routine and practicing school words in different contexts (e.g., at home, at the farmer's market). Sean's mother explained:

We practice [school words], look at them, talk about them here at home, and then we actually went to a farmer's market with him. And we walked around and we ... kind of pointed out the different vocabulary words and ... just kind of explored.

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EARLY CONTACT, LANGUAGE ACCESS, AND HONORING EVERY CULTURE:

A Framework for Student Success

By Rosemary Gallegos

In New Mexico, families and their children thrive when offered a family-centered approach to education and when programs are culturally responsive. Two families, one Hispanic and the other Native American, exemplify this success.

Here we share their stories.

When Angelique Quiñonez was 18 months old, her family started receiving services from the New Mexico School for the Deaf (NMSD). Angelique's family lived in Anthony, a small town in the southwest part of the state and a four-hour drive from the main campus, and the services they received occurred right in their own home. NMSD's early intervention staff, deaf mentors, and early intervention specialists who live in the southwest part of the state visited Angelique's family regularly, helping her parents and brother to learn American Sign Language (ASL) and teaching them how to interact and communicate with their deaf child. Angelique also entered a preschool branch of NMSD in Las Cruces, New Mexico, which was close to their home, giving her additional exposure to language and communication through ASL.

When Angelique was 5 years old and ready for kindergarten, her parents made the difficult decision to move away from their extended family so that Angelique could receive the best education they believed possible and attend school at NMSD's main campus in Santa Fe. NMSD's family housing program supported the transition. In this program, a family lives on campus until their child is old enough to live without family present in NMSD's residential program or the family is able to move to Santa Fe. Angelique's brother Jason, who is hearing, became part of the sibling program; he attended preschool on campus with deaf and hard of hearing children, was immersed in ASL, and learned how to fluently communicate with his sister.

Angelique's family—and the teachers and staff of NMSD—ensured she grew up in a milieu

Photos courtesy of Rosemary Gallegos





that was rich in language, both at home and in school. She communicates easily with Jason, her parents, her peers, and her teachers. Her communication and language skills are constantly improving, as is her self-confidence, and she excels in math, English, and art. Angelique is involved in many extracurricular activities and loves to play volleyball and soccer.

One of Angelique's most exciting experiences was when she represented her Mexican heritage through Folklórico dance with the Aspen Santa Fe Ballet company. Last fall, Angelique danced with this company of classically trained artists when the company performed on NMSD's campus for the 16 de Septiembre celebration of Mexican independence. When other students asked her why she was chosen to perform, she said proudly "because I am Mexican." Angelique has expressed that she would like to go to college at Gallaudet University in Washington, D.C., and study to become a math teacher and a professional volleyball player. At 9 years old, she has high expectations and aspirations for her future.

Elias Curley, who was born on the Navajo

reservation in northwestern New Mexico, began receiving NMSD's early intervention services when he was 2 years old in his home. He also attended our preschool branch in Farmington, New Mexico, which is close to the Navajo reservation. His family's home is four hours away from the main campus. His parents speak Navajo, and they are a part of a supportive extended Navajo family. His maternal grandparents are learning to sign because they want to share the Navajo culture

and stories with their grandson.

Elias's mother, Krystle Curley, said their family "wants Elias to be a well-rounded child who will appreciate and embrace the Navajo and Deaf cultures" (personal communication). They added that, at the beginning, what helped them most was support from immediate family and home visits from NMSD early educators, deaf mentors, and other parents who were going through the experience of raising a deaf child.

Curley said that NMSD became a part of their





Above: NMSD students Jaqueline Sanchez, Antonia Maria Martinez, Angelique Quiñonez, and Julian Aranda-Sotelo perform with the Folklórico dance troupe from the Aspen Santa Fe Ballet during NMSD's Mexican Independence Day Celebration.

lives while they were living on the reservation so they decided to enroll Elias in NMSD's main campus. Through many NMSD supports, including the family housing program, they were able to transition to Santa Fe and become immersed in the Deaf community. Elias is now 7 years old. His family noted that he has become increasingly expressive, telling them his wants, needs, and feelings, and he interacts more meaningfully with his friends. Most important, they say that they have grown as a family; they support each other more, they have learned more about each other, and in addition to communicating in English and Navajo, they communicate with a new language, ASL.

The People Within the Framework

As a majority minority state, New Mexico is approximately 48 percent Hispanic, 38 percent white without Hispanic or Latino heritage, 10 percent Native American, 2 percent African American, and 2 percent Asian. The

state celebrates diversity within diversity; there are seven main Native American languages and 22 Native American tribes, including Pueblos, Apache, and Navajo. Within the Hispanic community, some individuals identify as culturally Mexican, others as culturally Spanish, and still others as culturally New Mexican.

NMSD reflects the state's majority minority populations: 57 percent of the students are Hispanic and 15 percent are Native American. These students are almost all influenced by Spanish or by a Native American language in their homes. For example, families may speak English and either Spanish or a Native American language, or they may be trilingual but only use their Spanish or a Native American language when senior family members are present. Fifteen of the 140 families on NMSD's main campus request written materials in Spanish and Spanish interpretation during school meetings and events.

The NMSD early intervention and early childhood specialists live in and are a part of each child's community. They

come from the cultures of the children and families, or they have frequent interactions with members of these cultures. NMSD's early intervention programs strive to employ early developmental specialists and deaf mentors who not only specialize in deaf education and early childhood development and are fluent in ASL, but who are also fluent in a Native American language or Spanish.

The Curley and Quiñonez families report that the trust they developed with NMSD providers made

their move to NMSD's main campus possible. Once they and families like them arrive, NMSD strives to offer academic programs within a culturally responsive educational framework. The overwhelming majority of instructional staff on the main campus are not Native American or Hispanic, and most of our teachers and administrators did not grow up with life experience or cultural norms that are similar to those of our students. For this reason, it is important for NMSD and all its programs to have a framework that honors the cultural milieu of each student and provides each NMSD employee the opportunity to interact and grow within it. We know that interaction between diverse cultural groups helps decrease prejudice and increase empathy (Pettigrew, Tropp, Wagner, & Christ, 2011; Rodenborg & Boisen, 2013), so we structure opportunities for this interaction between our staff and New Mexico children and families.

Further, this framework offers teachers and staff guidance in exploring biases

and assists them as they develop cultural knowledge. This allows us to be culturally responsive and more effectively interact with the students and families we serve. Teachers and administrators make decisions for and about students on a minute-by-minute basis. Without training and interaction between staff and families to develop knowledge of students' cultural origins, staff may not be bringing the appropriate information to the important work they do (Lipsky, 2010).

NMSD teacher Laurie Anderson described her experience in coming to work at NMSD as follows:

Prior to living in New Mexico, I had never met or had contact with Native Americans. Since moving to New Mexico, I have learned that not all Native American tribes practice or believe the same things, nor do they uphold the same traditions. Each tribe has its own set of unique beliefs that are held sacred and private.

As a Caucasian female, I have learned that I am not to ask much about Native Americans and their beliefs or at least I need to maintain some distance between their culture and my questions and curiosity. To be invited to a Native American reservation is a great bonor, one that I have experienced and hold special in my heart. When visiting a Native American reservation, I learned that it is proper to always bring something to share, such as a dish or a watermelon, as a way to express appreciation and respect; I also learned that when you are offered something at a Native American's home, it is polite to accept the offer, whether it be drink or food, regardless of whether or not you are in the mood to drink or eat. To not accept their offer or gift is

I have also learned that Native Americans do not always use direct eye contact in the way I am accustomed to or

considered rude.

Without training and interaction between staff and families to develop knowledge of students' cultural origins, staff may not be bringing the appropriate information to the important work they do (Lipsky, 2010).

was taught. There is a quiet and sensitive silence that I often receive from my Native American students that I think reflects the respect they maintain for their elders. In my experience of teaching Native Americans, I have often found that students need extra time to process questions and ideas in order to respond. Some Native American students readily respond to questions and

participate in discussions, while others show greater reservation.

Finally, I learned that for Native Americans, certain cultural and family events supersede the importance of attending school. For example, if there is a cultural event planned on the reservation, students' families place attending this event as a priority over attending school in order to maintain and hold their culture and traditions in high regard.

I am from a different culture and thus have learned to avoid placing my own values or expectations on my students, especially when it comes to following certain social norms. Instead, I have learned to respect their values, and I have developed a sensitivity/awareness of what is more comfortable for them. (Personal communication, 2017)

A key aspect of NMSD's multicultural framework is ensuring families have language access for meetings, presentations, and events. At NMSD, four out of nine staff interpreters are trilingual. It is their responsibility to interpret conversations and interactions in ASL, English, and Spanish. Our interpreters are always available to facilitate communication, and they raise awareness when our environment is not culturally responsive. For example, at the urging of its interpreter team,

NMSD provides two screens and displays all PowerPoint presentations in both Spanish and English. Although trilingual interpreting is extremely complex (Annarino, Aponte-Samalot, & Quinto-Pozos, 2014), NMSD's interpreting team has committed to honing this skill and has been a significant influence on increasing language accessibility, inclusivity, and respect for diversity at NMSD.

Left: A student shows the student life educator her caterpillar, which will soon

transform into a butterfly.

Developing a Multicultural Framework

The first step in developing a multicultural framework is establishing a school philosophy that honors diversity, views culture as an asset to student success, and has high expectations for all children. To achieve this, teachers and staff must have the opportunity to explore their own identities and core values so that they can begin to eliminate their own biases and examine some of their own stereotypes. They also must have the opportunity to interact with individuals in other cultural groups and to listen to their stories. Shira Grabelsky, curriculum specialist at NMSD, explained it this way:

I've learned that students are an embodiment of the cultures they grow up in, both at home and at school. It is not possible to separate the student from his or her culture, to look at the student in isolation. I've also learned that culture is not only about beliefs and values but also about how time is spent. Students who spend time on the rodeo grounds, for example, have the culture of bull riding in their blood, and students who spend time traveling to family in Mexico have U.S.-Mexican transnational family culture in their blood. You cannot separate that component of culture from the person.

These things I learned through conversations with students. I spend the first few minutes of every class checking in, and it is during these check-ins that I learn so much about my students; they share more when classroom content is relevant to them. (Personal communication, 2017)

When expectations are set for honoring diversity, strategies and programs can be tailored to fit individual students and their families. At NMSD, we have found that early childhood specialists working and living in the communities where children are born engenders the trust of families, and this trust relationship enhances the

ves anals

families' ability to support the language and communication development of their children, which in turn leads to the children's effective transition to schoolage services. On the NMSD campus, activities such as honoring cultural holidays, drum making, and providing local cuisine at the cafeteria are important to acknowledging local culture and building students' self-esteem

However, we know strategies for being culturally responsive must go **Left:** Elias Curley with his parents, Krystle and Tim.

beyond the things that we see; they must address "deep culture" (Hanley, 1999). Educational systems must include ways to ensure families have language accessibility so they can fully participate in their child's education. We must ensure our staff members have the opportunity to engage in self-analysis and to explore their own identities, and we must listen carefully to our students and their families so that our instructional strategies are responsive to appropriate cultural norms. We must also make it a priority to interact personally with our students' families, to experience their cultures, to build trust, and to reduce bias. Only then can we shape the educational environments that provide Angelique, Elias, and all of our students every opportunity for success.

The author would like to thank NMSD teacher Laurie Anderson, curriculum specialist Shira Grabelsky, and NMSD parents Claudia Hernandez and Krystle Curley for their contributions to this article.

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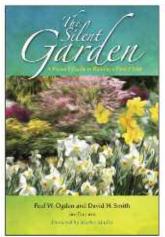
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RESOURCES FOR DEAF EDUCATION



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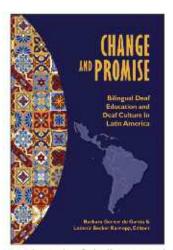
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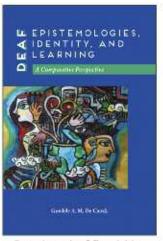
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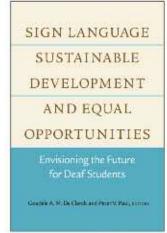
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Diane Fleming is

employed as a bus monitor in the Transportation Department at Gallaudet University in Washington, D.C. She graduated from the Model Secondary School for the Deaf, also on Gallaudet's campus, in 1997. Fleming is the proud mother of two, a daughter and a son.

Reflections on Success from a High School Graduate

Q&A with Diane Fleming

Diane Fleming gets up at 4 a.m. every morning and leaves her young children still sleeping to start her job by 5:45 a.m. Once there—the Transportation Department of Gallaudet University in Washington, D.C.—she climbs onto a school bus and begins her day's work. As the bus winds through the District of Columbia and the surrounding streets in nearby Virginia, Fleming makes sure that the children who scramble on board for their daily commute to Kendall Demonstration Elementary School (KDES), on the Gallaudet University campus, are safe, cared for, and picked up and deposited in the correct places. A former KDES student, Fleming once rode the bus herself. Here, she reflects on what she valued about her experience and what made her a success, first at KDES and then at the Model Secondary School for the Deaf (MSSD).

ODYSSEY: When did you enter KDES?

FLEMING: They found out I was deaf when I was about 1 year old. I started Kendall in 1978, when I was 2 years old.

ODYSSEY: Is there anyone who especially influenced you during elementary school?

FLEMING: I had fine teachers, but my best memory is of a person who worked on the staff. Ms. Liz Jackson, an older lady who worked in the Kendall cafeteria and, I think, managed it. However, Ms. Jackson did so much more than that! She took a real interest in the students. She taught us manners and the etiquette of formal dining—where to place a knife and fork, how to use a napkin, that kind of thing. She cooked very well, too!

Photos courtesy of Diane Fleming











ODYSSEY: She died on the job ...? **FLEMING:** Yes. I was still in elementary school. They called us into a room and the counselor told us that she had had a heart attack. We were distraught and so were our teachers. We all cried. We cried together. It was a big loss. Everyone in a school can contribute to the success of its students.

ODYSSEY: Do you have other memories?

FLEMING: I was fortunate to participate in the Special Olympics. It was in bowling, and we traveled to Minnesota for the competition. It was exciting. I've always loved to travel.

ODYSSEY: You were in a special program at KDES?

FLEMING: I was in the Special Opportunities Program for students who were behind their peers in academics due to learning disabilities or other disabilities, including

developmental disabilities. I learned to read slowly so that is why I was put into that program. Our teachers were good. Leslie Brewer, Don Mahoney ... I still remember them. However, the label was not nice. Other students made fun of us. I am happy that I finished school with honors from that program.

ODYSSEY: What is your best memory? **FLEMING:** In eighth grade, as we got ready to graduate from Kendall, we learned of a special award. The award was for an outstanding Kendall student ... a student who received good grades and no detentions. All the smart kids thought one of them would get it. Of course I thought one of them would get it, too, but when the name was announced, it was mine! I saw the words and I was shocked and pleased: "The 1992 KDES cup goes to Diane Fleming." My mom jumped up and down and clapped. It was embarrassing,

Above (clockwise from left): Diane Fleming at age 3; with her parents at the Special Olympics; on graduation day in 1997 with Fred Beam and Clerc Center dean Kathy Jankowski; with her mother, Phyllis; during a trip to Romania with the MSSD Road Show.

but I was so proud. I was the top Kendall student. The trophy was huge. I cried!

ODYSSEY: When you graduated, you went to MSSD, also on the Gallaudet campus.

FLEMING: Yes. I went into a regular program there—no "special opportunities" for me or anyone else. I liked it much better. It was hard, but I was able to keep up with the other students.

ODYSSEY: Did you live in the dorm? **FLEMING:** Yes! I was excited and nervous





but happy to do that. It meant that I was succeeding in being independent. At Kendall my mom had checked on me every day. When I had the option of moving into the dorm at MSSD, I wanted to do it. I told my mother I would be fine. I was ready to be independent.

ODYSSEY: What were your favorite classes?

FLEMING: I loved math—Fred Beam taught it—and he works at the National Technical Institute for the Deaf now. And I always loved my counselor, Bill Saunders. I learned a new word, *obese*, and I told Mr. Saunders that he was obese. He laughed and laughed. He was a good man.

ODYSSEY: And your best memory of MSSD?

FLEMING (smiling): At MSSD, I took general classes and I had to work hard. A tutoring program was part of dorm life, and I took full advantage of it. Still, I have to say that one of my best memories was again participating in the Special Olympics. I was on the volleyball team that time and we went to Connecticut. That meant another great memory! I also participated in the MSSD Road Show, a drama group under Tim McCarty and Paul Harrelson. We got to perform in Romania. I learned so much. It brought history home. I loved it!

ODYSSEY: Because it was so different from the U.S?

FLEMING: Yes. It is good to learn about people around the world. The Romanian deaf people had seen Africans and they had seen white Americans, but they had never seen African Americans and we astounded them. There were three of us in our group. We didn't wear African garb but typical teenage American clothing. They signed beautiful. They touched our skin and hair. We were not offended. They were just curious.

ODYSSEY: Did you graduate from MSSD?

FLEMING: Oh, yes. Then I went to the University of the District of Columbia. I wanted the challenge of taking classes in the "hearing world." I began work in photography, and I worked in a photography store, too, for a while but photography was changing. We were learning about film and photography was becoming digital. The store was forced to close.

ODYSSEY:: And now?

FLEMING: Now I have two wonderful kids. When I sense negative feelings, I don't express them. I try to stay positive for my children. My mother lives with me and helps me so much. I feel lucky to have a good job and to work with young children who remind me of myself. I hope to be like my mom.

Left: Fleming enjoys her work as a bus monitor in Gallaudet's Transportation Department.

ODYSSEY: Your mom had the same job you have now?

FLEMING: Yes, my mom began working in the Transportation Department when I was 5 years old. She was still working there when I started six years ago. She has retired, but she worked at Gallaudet for 32 years!

ODYSSEY: Of what are you most proud?

FLEMING: I am most proud of having people who believed in me (my mother, father, brother, and others), of growing up and having a job I enjoy, working with many, buying my own home and car, raising my children, and having the ability to face everyday life changes while having what I need to keep going.

ODYSSEY: Do you consider yourself a success?

FLEMING: Yes, I do. From the very beginning when I started school, I knew I had to work a lot harder to do things, just to understand what was happening to me and around me. Yet I've finished school; I have an interesting job and a family; and with help from my family and others, I have everything I dreamed of. It is a wonderful blessing to know I could do this.

ODYSSEY: Do you have advice for parents and educators of deaf and hard of hearing children?

FLEMING: Yes ... learn sign language. Sign language enables communication and communication is so important for all children. Please try to understand the deaf or hard of hearing child's point of view. For deaf parents with hearing children, it is not easy either, but deaf parents need to take the opportunity to learn more about the hearing worldjust like hearing parents should take the opportunity to learn more about the deaf world. We all must do the best we can for our children whether they are deaf, hard of hearing, or hearing. As parents, we are the most important contributors to our children's lives and their success.

20

Massachusetts Offers Trilingual Reading Saturdays to Increase Reading Skills and Confidence

By Kathleen M. Vesey

"We look at and read books more thoroughly now."*

"Hardly any more frustration between adult and child."

"We LOVE having books that we know how to sign the story. We like to have ideas for discussion and the ability to talk about the book in ASL."

"The program helps parents and children communicate better."

These comments affirm the experiences of so many of the families of the deaf and hard of hearing children who come to Shared Reading Saturdays at Northern Essex Community College (NECC) in Lawrence,
Massachusetts. The program, which includes monthly gatherings and is coordinated by the NECC's Gallaudet University Regional Center, features deaf individuals helping hearing parents learn how to read with their children in American Sign Language (ASL) in response to research that indicates young children whose families read with them on a regular basis do better academically and achieve more success in school (Trelease, 2001).

Approximately 12 families from throughout the Greater Merrimack Valley region of Massachusetts attend the program. The children range in age from infancy to 11 years old. They are joined by their parents and siblings—and often by their grandparents, aunts, and uncles. The sessions give the adults the communication tools to read with their children, and organizers hope that they do so multiple times per week.

Photos courtesy of Kathleen M. Vesey

Kathleen M. Vesey, MBA, MA, is the recently retired director of the Gallaudet University Regional Center (GURC) at Northern Essex Community College (NECC), a position she held for 27 years. She holds master's degrees from Boston University and Gallaudet University and a bachelor's degree from Regis College. Vesey has served on a number of boards and advisory committees in the Deaf community, including the Massachusetts Newborn Hearing Advisory Committee. Under her tenure, the NECC GURC provided creative programs for families with children who are deaf or hard of hearing, including the Family Sign Language Program and Shared Reading Saturdays, both of which are accessible for families who speak Spanish and English. In her spare time, Vesey can be found on the golf course or kayaking on the rivers of New England.

For more information about the abovementioned programs, visit www.necc.mass.edu/ gallaudet.





Left: Kellynette Gomez and her mother, Jackie, in 2005 not long after they began participating in Shared Reading Saturdays.

year, and we have had time to see some of our children move on to middle school, high school, and college. Kellynette Gomez, who attended with her mom, Jackie Gomez, went to college at Gallaudet University, graduated, and is today employed in the human services field as a community involvement and program liaison at Springfield

College in Massachusetts.

Kellynette and her family were
among the first to participate in
Shared Reading Saturdays. She
began as an elementary school
student and continued to participate

through high s
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nstructor [learned] how
rmation were some of the

through high school, when she served as a volunteer to assist with the children's activities.

"It was a real confidence booster," Kellynette remembered, "knowing that my family members, especially my mom, [learned] how to read a book in sign language. Those Saturdays were some of the best times, and when I look back I realize that many of those folks were my guiding light in getting to where I am today."

Kellynette felt that the experience improved her reading comprehension and her ASL skills. It also helped her socialize. "I was mainstreamed in the public schools," she said. "A majority

> of my classes were in a hearing environment, so without these monthly [Shared Reading] Saturdays, I am not sure that ... my Deaf identity would have been as strong."

Her mother agreed, finding that the whole family benefitted from the program. Noted Mrs. Gomez:

As a parent [I found] a program that not only teaches parents to read in ASL to their children but is also a place to connect and socialize with other families in the community. The Shared Reading Saturdays program has helped me to grow as a parent, and I feel more prepared to deal with my daughter's deafness.

Other parents record similar feelings. Notes Ursula Millard, mother of a daughter who uses sign language:

We [parents] benefit greatly from this wonderful program. It gives us the opportunity to meet other families who have hard of

We begin with light refreshments. Then the deaf and hard of hearing children and their siblings assemble by age to participate in organized activities with volunteers and staff related to a book that has been selected for the month. At the same time, adult family members meet with a deaf instructor and learn to read the story out loud and use ASL. The instructor models reading using ASL and provides additional information related to reading to deaf and hard of hearing children (Schleper, 1997).

Following the instruction, the families break into small groups and practice signing the story with the assistance of a deaf tutor. When practice time is over, the children join their families to read the story together. The deaf

tutors observe and then offer tips on reading in ASL, communicating with the deaf and hard of hearing children, and storytelling.

Three languages are used during the program: English, ASL, and Spanish. The program was designed both for families who use English and families who use Spanish in their homes. Interpreters are available to translate ASL into Spanish as well as English. Presentations occur in all three languages simultaneously through the use of FM systems with headphones. Each family member wears a headphone and chooses the English or Spanish channel on the FM system. The use of the FM system with headphones allows for equal access and respect for both spoken languages; no language is viewed as dominant over the other.

The program is now in its thirteenth

Parents have
told us that the
extended family
members who
participated often
remain close to their
deaf or hard of
hearing child
years later.



hearing or deaf children. We have learned what other families are doing with their children ... and [have helped] them to advocate for themselves. We have learned how to read with our hard of hearing daughter in more interesting and fun ways.

Educators reported that students who participated in Shared Reading Saturdays performed differently in class. Lorna Davidson-Connelly, a retired school counselor from the Lawrence Public Schools who has been a program volunteer for many years, recalls how student enjoyment of the program affects other aspects of their lives:

One of our elementary students loves to retell stories and present what she learned at Shared Reading with her classmates. She displays good retention of classifiers and vocabulary. The student was also thrilled her family was taking an interest and the time to learn sign language, which helps with communication at home.

Further, families report increasing the number of times they read with their children, from once or twice a week when they begin the program to three to five times a week at the program's completion. Family members note that the program helps their signing skills because instruction is tailored to families with young children, but they also say that the program affirms that they do not have to be fluent signers, and they find this a source

of relief. The program gives them the skills and confidence to read books—a wider variety of books and on an increased basis—with their children.

Parents have told us that the extended family members who participated often remain close to their deaf or hard of hearing child years later. New families join each year. As some of the deaf and hard of hearing children became older, they, like Kellynette, join the ranks of our volunteers and assist with the younger children's activities.

While parents have noted growth in their children as they participate in the program,

sometimes the children—as they grow—note changes in their parents as well. Kellynette remarked:

It was amazing to watch my mother become an advocate for me and other deaf/hard of hearing children in the public school system. Oftentimes, my mom would take the role as a bilingual interpreter to give access to Spanish-speaking families. [She] also acted as a resource for families who have deaf children; providing them with information about school, the Individualized Education Program ... and much more.

An important part of the program is the lunch that families

enjoy together. Family members have often commented in our surveys about the importance of interacting with other families who have the experience of raising a deaf or hard of hearing child. Networking is fostered.

We also welcome families whose children, though hearing, utilize sign language to communicate. In welcoming hearing siblings, the program becomes one of the very limited resources in which families can see all their children—deaf, hard of hearing, and hearing—learning and socializing together using sign language.

Shared Reading Saturdays, an adaptation of the Shared Reading Project that was initiated in 2004 by what was originally the GURC-Northeast (now the GURC-East) and the Laurent Clerc National Deaf Education Center, has found new sources of support. We have been fortunate to have funding from several private foundations as well as corporate sponsors for this program. Thanks to this funding, we are able to provide a book bag each month for each family to keep. The book bag includes the storybook of the month in English and Spanish, a DVD of a deaf individual signing the story, and suggested activities related to the story to do at home.

Shared Reading Saturdays has proved to be beneficial to parents and children, to those who use Spanish in their homes as

well as those who use English.

It is enabling our deaf and hard of hearing children to lay a solid foundation and increase the chances that as they progress through elementary, middle, and high school and go to college, they will do so as eager and fluent readers.

*Quotations in this article come from surveys administered during the Shared Reading program.

Left: Gomez and her family in 2016 on graduation day at Gallaudet University.



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High School Students with Cochlear Implants: Coming Together for Success

By Debra Nussbaum, Genie Chisholm, Rebecca Galloway, Venita Dzime-Assison, and Jane Doyle

While many people assume that students with cochlear implants have placements in mainstream schools, almost 25 percent of the approximately 175 students at the Model Secondary School for the Deaf (MSSD), the residential high school on the campus of Gallaudet University in Washington, D.C., have an implanted listening device. Working with these students, professionals encounter a group that is ethnically, culturally, and educationally diverse.

Some students arrive from general educational settings; some arrive from schools for the deaf. Some have been educated primarily through spoken language; others use both spoken and signed languages. Some learn visually; others have strong auditory skills and preferences. Some received their implants when they were very young; others just got them. Some love their implants and use them all the time; others feel ambivalence and use their implants periodically. Despite these differences, all have gone through the experience of surgery, and all have lived with an implanted listening device. In fact, having a cochlear implant provides a common bond for these young individuals.

The professionals at MSSD have discovered that providing opportunities for these students to come together and interact can be an important part of their personal and social success. A multidisciplinary group of professionals—including speech-language pathologists, audiologists, school counselors, school psychologists, teachers, and graduate

Photos by Susan M. Flanigan





interns—collaborates to plan three to four gatherings a year to give students the chance to talk about their experiences and challenges. These events provide an opportunity to explore helpful listening accessories and discuss effective language and communication strategies, especially those that include social media. They address identity issues and connect with deaf adults, who may or may not use cochlear implants, within the community.

The Bond of Implantation Getting Together to Learn—and Have Fun

All students with cochlear implants and students with other technologies that rely on implantation, such as implanted bone conduction hearing systems, are encouraged (but not required) to attend these meetings. It does not matter how consistently students use their devices or whether they have a single or a bilateral implant. Some students who have had their device's internal components removed have come, as well as students who are considering a cochlear implant for themselves and those who are curious to learn more about the technology. Typically 35-40 students

Above: Students learn about home and family communication tips while enjoying cupcakes and popcorn.

attend the meetings. Pizza is a strong motivator!

The meetings occur at the beginning or the end of the day or during lunch so they do not interfere with academics. Information publicizing each gathering is shared with students, staff, and families. Planning starts each year when every MSSD student with an implant is given a needs assessment. The assessment, completed either in print or through a face-to-face meeting, gathers information about each student's implant, communication background, feelings about his or her device, and possible supports. After reviewing the needs assessments, as well as brainstorming with the students themselves, a theme for each meeting is identified.

Each meeting includes an opportunity for social interaction as well as a structured learning experience. Students are encouraged to mingle informally, and technology and games are incorporated to promote their engagement. Activities are structured around topics to encourage information exchange, and ground

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The authors welcome questions and comments about this article through Nussbaum at debra.nussbaum@gallaudet.edu.



Above: The students brainstorm a name for the group.

rules are established to ensure information is conveyed in a nonbiased and respectful manner. An evaluation is completed at the end of each meeting to determine if the students enjoyed the activity and if learning objectives were met.

Some highly successful activities have included using:

- personal videos developed by the students that demonstrate how to use assistive listening accessories to connect to media;
- a "Jeopardy"-style game involving truths and misconceptions about cochlear implants;
- a Speed Meet and Greet, during which students move quickly from peer to peer asking each other questions related to cochlear implants;
- The Line Game, in which students "meet at the line" according to areas of commonality (e.g., the professional leading the meeting calls out such statements as: "Come to the line if you use your cochlear implant every day." or "Come to the line if you went to a mainstream

school."); and

• polling technologies (e.g., Turning Technologies ResponseWare, www.turningtechnologies.com) to survey students on opinions about topics such as the advantages and disadvantages of a cochlear implant, the decision to obtain a cochlear implant, or the advice about implants that they would offer to others.

The groups have also enjoyed opportunities for:

- participation in an essay contest on the topic of "What Would You Tell Other Deaf Students Who Are Considering Getting a Cochlear Implant and Why?";
- presentations from cochlear implant manufacturers on assistive listening accessories and how they connect to smartphones, tablets, and other portable devices; and
- panel discussions involving Gallaudet University students and MSSD staff who use cochlear implants.

Teens Demonstrate Independence and Advocacy—

And a Need for Knowledge

We have learned that students with cochlear implants at this age and stage of development are transitioning to becoming greater advocates for themselves in the use and care of their implant. At the same time, they may have limited knowledge about the device they are using. For example, they may not be aware of the company that manufactured their cochlear implant or the many accessories that are available for it—accessories that can afford them increased opportunities for connectivity to media or improved listening in noisy situations.

In addition, as many of the students are teens, issues arise that are central to identity development. Students may

Below: A student evaluates the activity, answering questions such as: Did you socialize with other students? Did you learn any tips for communicating? Was this a supportive environment in which to share your experiences?



I didn't realize how
many other students
had CIs. I know that a
cochlear implant
doesn't work for
everyone, but it has
worked for me.

~ Justina, 12th grade, MSSD student

express interest in exploring questions such as: Why did my parents decide that I should have a cochlear implant? Do I fit more in the hearing community or the Deaf community? Now that I am in a school for the deaf, should I use my cochlear implant?

From many years of providing these group gatherings, we have seen how much students appreciate these opportunities and learn from them. We have observed that this opportunity fills in gaps that may not have been otherwise addressed in students' educational or personal experiences. We feel this kind of structured yet informal interaction is important in the program of every student who has an implanted device.

Professionals and volunteers from various settings—school districts, cochlear implant clinics, civic organizations such as Lions Clubs or Sertoma—can help establish afterschool activities, clubs, camps, and weekend experiences to bring students with cochlear implants together. Students who live in rural areas or find getting together is difficult because of geography may find similar interaction through FaceTime, Skype, or other video chatting software. Based on the

growing number of younger children with cochlear implants who are becoming teenagers, providing these opportunities for social engagement should be considered an integral part of promoting student success.

At MSSD, students with implants have access to a wide variety of services provided at school. These services are integral to ensuring students have properly functioning technology and that they benefit from it to capacity. Services include:

- audiological services (including a complete audiological evaluation, troubleshooting when problems develop with implant equipment, and education regarding assistive devices to support listening with their implant),
- access to spare and loaner parts

- auditory and speech training provided by a speech-language pathologist based on goals documented through the IEP process, and
- counseling (as needed).

Each of these services is important. However, it is also important to remember that one of the best supports we can provide for our students is the opportunity to get together. This is what the professionals at the Clerc Center have done—allowed our students to meet, talk with each other about their implants, and explore their own questions. We have found that while we offer a wide range of supports for deaf and hard of hearing students with cochlear implants, sometimes one of the best supports we can provide for them is each other.

Resources to Support Teens with Cochlear Implants

- Teens and Adults (Cochlear Corporation), www.cochlear.com/wps/wcm/connect/au/home/support/rehabilitation-resources/teensand-adults
- Tweens & Teens: Telephone with Confidence, www.cocblear.com/wps/wcm/connect/us/communication-corner/program-intro/tweensteens-telephone.htm
- Telephone Tips (Med El), www.medel.com/us/user-support-telephone-tips/
- Guide to Access Planning (Phonak-Planning Guide for Teens with Hearing Loss), www.phonak.com/us/en/support/children-and-parents/planning-guide-for-teens.html
- Young Adult Network (Hearing Loss Association of America), www.hearingloss.org/content/young-adults-0
- Encouraging Peer Support Groups (Alexander Graham Bell Association), www.agbell.org/Document.aspx?id=1517



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Right, top: Camp director Joseph Santini (in green) welcomes campers to Camp Invention ASL.

Right, bottom: Students participate in an array of hands-on STEM activities.

Camp Invention ASL: Inclusive, Relevant, Family-Focused Science

By Joseph Santini

When I was teaching in a New York high school, I asked one of my students why he did not like to read. The student, who was bright but struggling, told me he felt no connection to the books available to him at school. In fact, he said, he had looked through every book in our classroom and every book in the library only to confirm his own sentiment: Not one of the books concerned a character who was deaf, black, and male—like him. At a heartbreakingly young age, my student had internalized that reading was not for him.

Among the fields that particularly lack images of diverse participants are those of science, technology, engineering, and math, fields captured under the acronym STEM. Often in STEM fields, images and experiences of deaf and hard of hearing children, children of color, and young women are rare or absent altogether, with the result that these children do not visualize themselves as becoming scientists. Like my student from that New York high school, they make an unconscious judgment that science is not for them. The lack of representation in these materials creates a self-fulfilling prophecy that leads students to ongoing struggles with STEM curriculum and a lack of confidence, a process that has been explored by the National Research Council (2011).

Research has shown that students benefit from seeing positive images of people like themselves doing science (Hurtado, Alvarez, Guillermo-Wann, Cuellar, & Arellano, 1998). Therefore, in the summer of 2013, when Jill Bradbury approached me about the possibility of establishing a summer program in STEM and American Sign Language (ASL), I was excited. The program would be a section of Camp Invention, a national organization that partners with over 1,000 schools throughout the United States to provide summer experiences in STEM fields for children entering grades one through six. Bradbury, a professor of English at Gallaudet University and a mother of two young hearing children, wanted to establish the first Camp Invention in ASL. In this camp, deaf and hard of hearing children, their hearing siblings, and hearing children of deaf parents could engage in the fun of learning science together. We would call it "Camp Invention ASL."

Photos courtesy of Joseph Santini











As we developed the camp, we addressed several challenges. We wanted to:

- make a positive STEM environment for all, where each camper could feel like a scientist;
- incorporate both ASL and English in a science curriculum;
- involve the children's families so that learningwould be meaningful and continue at home; and
- modify a curriculum to suit a community for which it wasn't designed.

Feeling the Science

A STEM-Positive Environment

Having accepted for the first time the role of camp director, I was very aware of these issues when I stood up to welcome our campers and their families in 2016. I tried to frame our opening message to share that science, ASL, and deaf and hard of hearing people go hand in hand.

As the camp got underway, I encouraged teachers to share the same message—that deaf and hard of hearing individuals use ASL to be successful in STEM positions throughout the country. Our young campers got to meet and work with some of these scientists—deaf adults who innovate, lead their fields, and showed up to role model for the deaf, hard of

hearing, and signing hearing children whom they knew needed them. Last summer, for example, Todd Epps and Alex Camarota, deaf employees of the U.S. Patent and Trademark Office, the national sponsor of Camp Invention, spent a day with our campers.

Incorporating ASL

Overcoming—and Tearing Down— Language Barriers

Language deprivation is one of the major challenges facing the Deaf community. Many deaf people are born into families that do not use ASL and lack full access to language during their first years of life, a crucial developmental period. These students struggle with both English and ASL, sometimes throughout their lives. For teachers, this makes scaffolding language throughout the curriculum a necessity.

Camp Invention ASL modifies the curriculum provided by the national organization to incorporate ASL and Deaf culture. We provide announcements in ASL with English captions. We provide vocabulary and concepts in ASL and in English, and, just as important, we demonstrate for our campers how STEM vocabulary is properly used in ASL. For our weeklong experience, the goal is to make STEM and ASL a part of family life.



Whole Child Means Whole Family

Involving Parents and Siblings

The National Education Association published a policy brief (Van Roekel, 2008) stating that one factor consistently led to high student achievement: the involvement of the student's family. It wasn't the school or the student's age, gender, or race. When families were involved, students demonstrated increased achievement.

Students need to know parents support their learning. They need to have opportunities to reflect on their learning when they are at home, with the people who are closest to them. If students leave school without the freedom or the skills to share what they have learned, less of it is likely to be retained or further analyzed.

One of our goals at Camp
Invention ASL is to allow deaf
and hard of hearing children,
their hearing siblings, and
hearing children with deaf
parents to learn and have fun
together in a STEM-focused
environment. This means Camp
Invention ASL serves everyone with
deaf and/or hard of hearing
individuals in their families. When deaf
and hard of hearing children and their
siblings learn science together, learning
continues in the family. It isn't lost on the bus on the
way home.

Amber Marchut, a professor at Lamar University in Texas who is earning her doctorate in Gallaudet's Education Department, researched the question of why some deaf people succeed in STEM while others do not (Marchut, 2017). Marchut noted that many of the deaf scientists she interviewed for her doctoral study cited the critical roles of their parents in contributing to their success. She added:

One [deaf scientist] mentioned her mom taking her to a crime lab when she was young due to her interest in forensics; another mentioned how his parents asked him why he wanted to change his goals from dentist to physician assistant, and they encouraged him to stay with his original goal of becoming a dentist.

Another's mom would provide babysitting services so she could go to classes or study, and another mentioned not wanting to go to college—but his mom kept at him. (Marchut, personal communication, December 2016)

Our camp had strong support from parents. They acted as instructors and classroom volunteers, even as camp artists. Our showcase at the end of the week allowed parents to celebrate their children and their work. We had hearing parents come up

to us with tears in their eyes as they took in the achievements of their children. Some of these parents had previously experienced limited involvement with their children due to language challenges. The showcase, spotlighting their children and their achievements, gave parents an opportunity to see their development and understand their potential. When parents saw the work of older campers, they understood what the future could mean for their own children.

Camp Invention ASL is a lot of work, but that type of delight makes it extremely meaningful for all of us—as does

knowing that learning continues in the home. Darleen Hutchins, one of last year's instructors who is the mother of a deaf 9-year-old daughter, texted me a week

Left: Campers studying propulsion invent handmade tools with which to knock down blocks.

after camp. She wanted to let me know that her daughter was dismantling an old washing machine, intending to build something new out of it. We agreed that a young girl who feels confident in dismantling washing machines is becoming prepared to handle whatever wrenches life throws at her!

That's the power of Camp Invention. It's not only about normalizing the access of deaf and hard of hearing students to STEM; it's also about normalizing the access to STEM in families with deaf and hard of hearing members.

Adapting a Curriculum

Science Works Through Seeing

A third challenge we faced was adapting a national curriculum to reflect the needs of children in the Deaf community. This didn't mean simply taking the curriculum approved by the national office of Camp Invention and addressing issues of ASL and English—although language is certainly a priority for a bilingual camp. It also meant ensuring the content stayed high level and including activities that provided the best learning experience for all children.

Part of the adaptation concerned the issue of deaf, hard of hearing, and hearing interaction, which we addressed before the camp opened. We wanted to train our counselors to identify how to respond to challenges that might arise due to communication. We practiced ways to remind our hearing campers to use ASL and to include everyone in every conversation. We discussed the challenges hearing children face in experiencing a learning environment that is primarily visual



for the first time and how to reinforce visual discourse skills. We practiced working with deaf and hard of hearing campers on positive ways to assert themselves. We wanted to make sure we were giving students a positive social experience as well as concrete subject content.

We also spent months supporting our teachers as they identified possible adaptations in the curriculum, such sections in which inquiry was based on hearing and sound. At first these kinds of

activities seemed to present problems, but by working together we found solutions. For example, one unit invited everyone to sing like a cricket. We found students could rub their legs together like crickets instead of sing, and they could also use tiny combs to make vibrations. We were able to avoid the emphasis on hearing while keeping the thinking high level. We could also incorporate ASL classifiers. Instead of simply signing or fingerspelling *vibrate*, for example, we could use a classifier to not only represent the concept "vibrate" but to show what vibrated and how.

Adaptations require time and resources—and we did our best to provide these, working with our teachers to analyze and adapt the curriculum and make it relevant to our campers and their families.

Looking Back, Looking Forward

A Success Continues

In three years, we have come a long way. We have adapted material to make it relevant, created a STEM-positive environment that celebrates diversity, brought families together, and lived the close link between ASL and achievement.

The number of campers has nearly doubled, and the camp is no longer unique. While our camp is held at the Model Secondary School for the Deaf in Washington, D.C., a sister camp, led by Kamilla Jakubowyc, a science teacher who worked with us on the first Camp Invention ASL, has opened at the Maryland School for the Deaf in Frederick. We have had positive press; our camp was featured on a local news channel and in a video produced by the U.S. Patent and Trademark organization.

Researchers note that "the cultures that male and female students from all backgrounds, races, and ethnicities encounter while they study STEM can undermine or support their performance and persistence" (Malcolm & Feder, 2016). Students make connections between what they learn and themselves. These connections can last a lifetime, impacting achievement throughout their years of formal education and



into their lives as adults. At Camp Invention ASL, deaf and hard of hearing students and their families learn from deaf leaders in science and technology in ASL. These are the qualities that drew us to establishing and working in Camp Invention ASL as well as helped us centralize our bilingual mission and guide our planning for a future—a future in which we hope there will be flying cars, powered by environmentally safe fuel, designed by a graduate of Camp Invention ASL.

The author thanks Jill Bradbury for her contributions. A professor of English at Gallaudet, Bradbury enjoys languages of all types, including mathematics. She served as director of Camp Invention ASL for two years and looks forward to working with Joseph Santini at the camp again this summer.

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Supporting Deaf and Hard of Hearing Preschool Students' Emerging ASL Skills: A Bilingual Approach

By Julie Mitchiner and Michelle Gough

What do the signs *elephant*, *robot*, *wings*, *soar*, *swim*, and *stomp* have in common? If you are unsure, check with your deaf or hard of hearing preschooler. Asked to brainstorm "signs with the B-handshape," a class of deaf and hard of hearing preschool children came up with every one of the above signs—and of course they were correct. After a week of B-handshape study, the children identified these B-handshape signs as part of a language activity that focused on exploring American Sign Language (ASL).

Helping young deaf and hard of hearing children explore ASL and English is one of the important jobs with which the preschool teachers who work with those children are tasked. Learning ASL and English, the children will become bilingual, fluent in the two languages they will use throughout their lives.

Working with two languages requires planning. Teachers need to work together to decide when and how to use each language. This enables teachers to avoid the use of simultaneous communication (i.e., signing and talking at the same time). Instead, teachers incorporate what is called "concurrent use of ASL and English," which means using specific strategies to incorporate both ASL and English into teaching (Baker, 2006; Gárate, 2012). For example, when students read a book in English, they use both languages as they translate the English text to ASL. This practice has been termed "translanguaging" (Garcia, 2009).

There are two broad categories of ASL and English bilingual methodology: 1) concurrent use of both ASL and English, and 2) language separation (Gárate, 2011; 2012). Both categories are equally valuable. Therefore, teachers schedule times when they will use ASL only, times when they will use English only, and times when they will alternate between both languages. Separating the use of ASL and English allows young learners to study the functions and purposes of each language and to strengthen their receptive and expressive skills (Ibid.).

Photos by Zhou Fang





The Power of Conversation

Dickinson and Tabors (2001) found that conversation—in the home and at school plays an important role in fostering children's early literacy skills. In a threeyear longitudinal study, they looked at the influences on literacy development in hearing preschool children beginning when the children were 3 years old. Then they looked at the way children handled language through their emergent literacy skills-including how they handled telling stories and interpreted print (including environmental print), and how they understood aspects of the alphabet and vocabulary. The researchers showed that positive interactions between adults and children as well as engaging in literacy practices at home—including the use of new and varied vocabulary, extended conversations, and developing language through play—were predictive factors to children's literacy skills. In other words, if family members talk with their children,

Above: Deaf and hard of hearing preschool students brainstorm signs with the B-handshape, including *elephant*, as part of a language activity.

vary their vocabulary in conversation, and read to their children, the children are likely to learn to read and write on par with or ahead of other children.

Of course, maintaining conversations and providing language-rich experiences with deaf and hard of hearing children is as important as providing these experiences to hearing children. When explanations and interactions are visible, deaf and hard of hearing children are supported in building vocabulary and understanding about their world. Further, these conversations are even more important for deaf children because they miss out on easy access to sound-based information around them.

Teaching ASL The Whole-Part-Whole Model

When planning ASL instruction, we follow

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the holistic approach drawn from the Whole-Part-Whole learning model (Freeman & Freeman, 1998; Swanson & Law, 1993). Instead of pulling parts of the language out of their natural context, we allow learners to first experience the language in its complex and meaningful entirety. From there, children become motivated and engaged to explore ASL grammar, often through conversation with guidance from the teachers. Students study the parts of ASL and how they work together grammatically. Using this knowledge and their new grammatical skills, children create new stories, songs, and expressions and gain a deeper understanding of how language functions.

Full Richness in Every Class The Whole of ASL

Children are exposed to ASL as an intricate and complete language through various ways, such as through languagerich learning activities, interactions with adults and peers, and viewing stories in ASL through storytellers or video clips.

Dramatic play areas and other early childhood centers can facilitate imaginary play to initiate conversations and discussions about ASL grammar. For example, as part of the daily curriculum, deaf and hard of hearing children see and tell stories, converse with each other and educated adults, view videos, experience units of learning, and engage in dramatic play—all in ASL.

Handshapes, Classifiers, and Markers

The Parts of ASL

Children explore the five parameters of ASL grammar: handshape, location, orientation, movement, and nonmanual markers. We focus on one ASL parameter at a time for a week.

Students begin with exploring nonmanual markers, and then they talk about handshapes. Teachers use stories, videos, or pictures of different handshapes and nonmanual markers for children to copy and identify. The children play with these handshapes and signs and analyze their formation. They record and watch themselves on video

Left: As a way of helping students explore ASL, teachers video them playing with handshapes and signs. The students watch themselves on video immediately afterwards.

immediately afterwards. As they become comfortable, they start to combine smaller parts to make a sign or a phrase.

We also explore nonmanual communication.

Nonmanual communication—the points, smiles, and shrugs of everyday life—are the basic tools of all children. However, for those who use ASL, these tools of the face and body have a

linguistic purpose, and this is what we begin to teach preschoolers.

One of the five mouth movements that have a linguistic meaning in ASL is what linguists call the cha cha mouth movement, used as an adverb to designate that something is done with particular force. For example, if we want to sign a man works, we might sign man and couple it with the sign for work, signing work using the straightforward up and down movement of the closed dominant hand. If we want to sign a man works very hard, we may make the same signs, but now the closed hand makes a circular movement for work, coupled with the mouth movement cha cha; it is the mouth, not the hand, that has refined the sentence and carries the meaning very hard. With support, children pick up quickly the linguistic nature of cha cha. In fact, it was the class that came up with much of the above example. The children also noticed that cha cha could be used in conjunction with the sign chat to mean chatting for a long time and in conjunction with the

signs *dog walks*, in which the hands reflect the dog's paws walking on the ground, to mean *dog's paws hitting the ground very hard as he walks*. We point out that while the mouth movements are the same or similar in each sentence, the English translation is different.

Handshapes

There are approximately 40 handshapes in ASL, and these handshapes make up most of the signs. With young children, we focus on seven basic handshapes. These handshapes are named after the letters and numbers that they most resemble: *B*, *A*, *S*, *C*, *O*, *1*, and *5*. The teacher shows a picture of a handshape on the SMART Board, and the children brainstorm different nouns and verbs that the handshapes can be used to represent. For example, the teacher might show the handshape 5 on the SMART Board, and the children then name signs that use this handshape (e.g., mother and tree for nouns, fly and swim for verbs). The teacher and the children use this opportunity to play with handshapes, usually selecting two or three. The teacher checks the children, making sure they use the correct handshapes (e.g., one of the children needed assistance because he was using the G-handshape instead of the Ahandshape in signing the word "game"). A favorite handshape game is "A Big Box," in which pictures of handshapes are pulled out of a box and the children must think of different signs that use that handshape.

Classifiers

We also teach children about classifiers. Classifiers are handshapes used to represent categories of nouns reflecting their shape and size. The teacher notes how a person standing upright can be represented by the 1-handshape, the extended forefinger. The same 1-handshape can be used to represent a long and thin object like a pencil, a pole, a stick, or a knife. When the sign is used to mean "person," it may be moved vertically and pick up speed to

show how a person moves with increasing speed. We also show how facial expression combines with this sign to indicate the person is walking very quickly. Further, we show how, when both hands make the 1-handshape and use it as a classifier, a signer can show two people walking together side by side, two people meeting face to face, or two people bumping into each other.

With preschoolers, teachers focus on three basic classifiers:

Descriptive classifiers—Used to describe objects or people, descriptive classifiers allow children to describe the size and shape of objects around them. While describing the shapes, the children were prompted to use appropriate grammatical expressions (e.g., nonmanual markers) to match the descriptions of the size.

Semantic classifiers—Used to represent noun categories, semantic classifiers are sometimes familiar to children. The children enjoy using the 3-handshape as a classifier to visually represent different types of moving vehicles. We focus on this classifier after showing a short video of a car, and children use it to show how the car speeds up or moves at a leisurely pace.

Locative classifiers—Locative classifiers represent the position of objects in a specific place or the movement of objects within a place. Children use locative classifiers to explore where the objects are located in the classroom, and then they discuss how to describe each object's specific location. The class also developed an activity in which the teacher shows different pictures of a cat lying on a chair, under the bed, and inside a basket using the bent V handshape as a classifier. The teacher models how to use these classifiers in appropriate ways, and then the children practice describing the position of objects in different locations.

Tips for the Preschool ASL Classroom

By Julie Mitchiner and Michelle Gough

The following four tips can be used to facilitate children's ASL development in a preschool ASL classroom setting:

- 1. Follow the child's lead. Children have a natural curiosity about the world, and by pursuing topics and activities that pique their interest, parents and teachers will find children more motivated to learn new vocabulary.
- 2. Model a variety of ASL handshapes and classifiers. Young children benefit from watching others. Invite Deaf community members to the classroom to tell stories and recite poems in ASL.
- 3. Use books, photographs, and real objects as a springboard for creating stories, poems, and games in ASL. Use real materials and pictures to help facilitate discussion, allowing children to use ASL creatively and to explore its characteristics. For example, children can practice describing real objects using classifiers.
- 4. Provide many opportunities to explore and play with ASL. Children can explore ASL during transitions from activity to activity, during mealtimes, and during those moments of incidental learning as well as during a set ASL time. Don't forget to share ideas and strategies with families to practice at home.





Putting It All Together Returning to the Whole of ASL

Each time children learn and practice grammatical skills, they are prompted to produce stories, games, poems, and songs using the features they learned. Through modeling and prompting, the teacher shows children how to keep track of beats and rhythms through body movement. The class develops handshape stories or poems using only one or two handshapes or they use a pattern, a "handshape text," alternating between two handshapes. For example, one class created a story about a bear by describing its physical characteristics and behaviors using only the Chandshape. The children swayed their heads and shoulders with animated facial expressions while they signed ears, nose, sleeping, and crawling—all with the Chandshape. The children then came up with different animals and handshapes to make similar animal poems. They created ASL songs, counting songs, and weather songs. A favorite presentation was "My Day Song," in which children relayed what they did all day-from waking up in the morning to going to bed at night.

As we teach our children about ASL, we are amazed at their creativity and understanding. We also recognize the benefits of teaching them the features of ASL at a young age. Early knowledge of how ASL works allows them to develop metacognitive and metalinguistic capabilities and to transfer conceptual and linguistic knowledge from ASL to their second language, i.e., English

(Cummins, 2006). This practice supports Cummins's theory of linguistic interdependence, where bilingual individuals transfer conceptual and linguistic knowledge across languages to increase proficiency in both languages.

In the long run, these activities will not only increase our children's ASL skills but also support their emergent literacy

development. We are excited to see our young students develop pre-literacy skills and sign language skills—and have a good time, too.

The authors wish to thank Dr. Maribel Gárate for her feedback on this article.

As we teach our children about ASL, we are amazed at their creativity and understanding. We also recognize the benefits of teaching them the features of ASL at a young age.

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FAMILY SUPPORT MAKES A DIFFERENCE WITH A DEAFBLIND CHILD:

Orion's Journey

By Heather Withrow

Twenty-five weeks into my pregnancy, we learned that our new son's eyes were not developing, a condition called complex bilateral microphthalmia, and that he would be born blind. When Orion arrived on July 19, 2010, indeed his eyes had not developed. Further, there were no responses to the hearing screening tests given at the hospital; a subsequent test showed profound deafness.

While some people feel that an infant who will never see or hear can bring only heartache, we—his deaf parents, hearing sister, and deaf brother—knew differently. My husband and I were aware of how deafness could be perceived as unfortunate, and we did not like the perception. Our lives are full—both professionally and personally—our friendships deep, our children active. After the initial shock and grief of learning Orion's prognosis, we put on our "Deaf Can" lens to appreciate our newborn son. We were overjoyed to meet him and amazed by his beautiful wizard-white hair. We knew he would show us much that we had been missing about deafblind children and about life itself.

The cause of Orion's deafblindness—as well as the cause of deafness for myself, my husband, and Orion's big brother Skyler—is genetic. My husband and I have Waardenburg Syndrome type 2a (WS2a), meaning each of us carries a single copy of a gene that causes a series of factors, including deafness. Orion got a copy of the WS2a gene from each of us, and the most noticeable results are his deafness, blindness, and lack of pigment in the hair. Dr. Brian Brooks at the National Institutes of Health's National Eye Institute, in Bethesda, Maryland, is investigating this condition called COMMAD (or coloboma, osteopetrosis, microphthalmia, macrocephaly, albinism, and deafness). Apparently, it had not been seen or even read about in medical journals prior to Orion's birth.

Deafblindness: An Information-Gathering Disability

Deafblindness is not just about the absence of sight and sound. It is so much more than the sum of these two parts. What one learns from experiencing the collaboration between a teacher of the deaf and a teacher of the visually impaired is that deafblindness

Photos courtesy of Heather Withrow

Heather Withrow

is an artist, writer, and track and field coach. She is also a reviewer for the National Intervener Certification E-portfolio and a guest moderator for the Communication Matrix Community (www.communication matrix.com), and she contributed to creating modules for Open Hands, Open Access. Withrow and her husband, Thomas Withrow, Jr., are the parents of three children—Skyler, Anastasia, and Orion. She welcomes questions and comments about this article through Facebook (www.facebook. com/O.T. Withrow) or through her blog (www.OrionTheKid.com).

Clockwise from top

left: Orion's siblings holding him for the first time; with teachers in KDES's PIP classroom; (center) a happy boy at 8 months; with Mommy at 10 months in his PIP classroom; exploring Daddy's face.





is a unique condition "out on its own," with separate challenges and intervention needs from either deafness or blindness alone. It is, as Dr. Linda Mamer—a teacher and consultant in the areas of blindness, low vision, deafness, and multiple disabilities—has said, "an information-gathering disability."

Some deafblind children may have a bit of the senses of vision and hearing, but their primary sense is that of touch, and this sense attains overwhelming importance. Even children who can't or don't yet actively use their hands to "look" can feel through the skin all over their body. They can come to know human touch in its gentleness or

intensity, hugs, kisses, and the brush of soft cheeks. They can know the warmth of the sun; the purring of a cat; and the slithering of cold, gooey ice cream as it dribbles down their chest. They can know the textures of their toys, the feel of the toilet lid dropping hard, and other details of their environment.

Information does not flow as quickly through touch as it does through sight. Sighted toddlers identify objects instantaneously. Young and sighted children take in pointed ears, delicate whiskers, tail, and paws, and they know right away the object is a cat. A deafblind child needs the time to touch each of these—ears, nose, whiskers, tail, paws—and to feel the animal purr.

As the child experiences the cat, recognizes the parts as they are consistently found in the same places and the purr as it reoccurs, he or she builds a memory of these shapes and characteristics into the concept of *cat*. Once the child has the concept of what a cat is, he or she can associate this concept, with all its pieces, into first a symbolic and eventually a linguistic representation.

Now as Orion is ready to turn 7 years old, we know that once a deafblind child has a loving family, the top three biggest difference-makers in his or her life are:

early intervention services,





- the Deaf-Blind Project run by every state with its outreach and technical support specialists, and
- interveners who are trained to work one-to-one with deafblind individuals and enable them to explore the world.

Early Intervention

Orion began receiving early intervention services when he was only 3 months old in Prince George's County, Maryland, where we lived. Knowing that early intervention is key for children with disabilities, I had wanted to begin the intake process even before he was born. Our oldest child, Skyler, had received county services related to deafness, but deafblindness was a new sensory disability for us. We felt we needed help—information and resources—so that we could appropriately support Orion at home. We were right. We would soon learn that while the physical and medical aspects of deafness and

Left: Orion at 17 months during physical therapy time in KDES's PIP classroom.

blindness are the same for all children, when a child is born deafblind, the impact is unique.

Orion received home visits every other week from a teacher of the deaf and a teacher of the visually impaired. He also received occupational and physical therapy, and we were able to borrow equipment from the county, including a mobile stander and a gait trainer—devices that would support his being upright and

eventually perhaps learning to walk. This equipment allowed Orion a new experience with gravity and how to use his legs. This was necessary because without vision or hearing, Orion had no access to information about what legs, hands, feet, and arms are for or how they are used. Being held upright gave him the practice of standing and opportunities for keeping his head up.

At 4 months old, Orion had the unique opportunity to experience two early intervention programs at the same time when he started attending the Parent-Infant Program (PIP) at Kendall Demonstration Elementary School (KDES) in Washington, D.C. He already had an Individualized Family Service Plan (IFSP) through our county of residence as entitled by law, and now he had a second IFSP through the school. In both programs, we found incredible individuals who were joyful and skillful in working with our son. Although it was not required, representatives from

each program visited the others' program to coordinate care, an undertaking that was special and deeply appreciated. Each program's IFSP contributed to Orion's growth. While PIP provided language-rich signers who knew how to communicate tactilely, the county program had essential loaner equipment. As a stay-at-home mom with a little more "brain to myself" time than many people, I found it fairly easy to coordinate the schedules.

These programs—and the support of the state's Deaf-Blind Project—enabled Orion to begin his development in communication and physical development early, and the curve of his development was exponential.

State Deaf-Blind Project

Every state has a federally funded Deaf-Blind Project that families and schools can contact for technical assistance and resources. Projects vary from state to state, but they usually include a director and specialists in Birth-to-5 education, family involvement, transition, and K-12 planning.

During the first two years of Orion's life, we connected with Maryland's Deaf-Blind Project called Connections
Beyond Sight and Sound. We were delighted that the personnel from this program involved themselves directly in our lives, coming to our home, meeting with Orion's teachers, and offering consultations and coaching. They also provided workshops that enlightened and empowered all of us—family members, professionals, and therapists.

When Orion was 2 years old, we moved to Texas and the services continued. The names and faces were different, but the hearts were equally warm ... and the expertise, support, and resource connections for our family were the same. Training and conferences on topics such as family leadership, communication, and interveners fill our calendar—and their services will continue through Orion's transition to the workplace!

ODYSSEY

Interveners

Anne Sullivan, the famous partner of Helen Keller, might be regarded as the first successful intervener for a deafblind child. Interveners are individuals who have taken intensive training on deafblindness and work to actively assist the deafblind children in their daily lives and learning. In *A Family's Guide to Interveners*, a booklet developed by



Above: Physical therapy service time at TSD.

parents and professionals, the authors note that interveners are critical in the development of deafblind children. They have the important tasks of seeking out opportunities for teaching using otherwise incidental situations, and they must develop a bond of trust with the child that supports a relaxed and nurturing learning environment. Linda Alsop, one of the booklet's authors, notes that the three major roles of an intervener working with deafblind individuals are to facilitate:

- access to the environment,
- · access to communication, and

 access to social and emotional development.

Interveners are becoming more common throughout the United States ... however, not quickly enough or in large enough numbers to meet the needs of the nation's 9,574 school-aged deafblind students (National Center on Deaf-Blindness, 2015). Parents need to be aware that life-skills teachers, care providers, and others whom the school may hire to do this work are not interveners; interveners undergo specialized training, and they can be recognized with a national certificate through the National Intervener Certification E-portfolio.

Our Texas Experience

At 2 years old, Orion became the first deafblind student in memory to enroll at the Texas School for the Deaf (TSD). Orion's first TSD teacher in what is now called the Toddler Learning Center had trained as a teacher of the deaf. When she met Orion, however, she became not only interested but enthusiastic in learning about deafblindness and how to work with our precious deafblind boy. Immediately she was on the floor with him, putting her skin against his, communicating through touch. She imitated Orion and she modeled for him. In addition, she attended workshops, took online intervener courses, and studied up

on communication and teaching strategies. Orion was very fortunate to have her on his team early on. Further, at TSD Orion joined other deaf babies and toddlers, some with additional

Right: Intervener Nanette signs *finished* while they put Orion's plate in the "finish box." disabilities. We enjoyed seeing him as he responded positively to his fellow classmates' little hands.

TSD provided a full range of services—an interdisciplinary team of people with specialties in speechlanguage, occupational therapy, physical therapy, vision, orientation and mobility, and audiology. We also had support from the Blind Children's Vocational Discovery and Development Program, under Texas Health and Human Services, and the Deaf-Blind Project's specialist in children under 5 years old. With so many valuable team members, our meetings—first for the IFSP and then for the Individualized Education Program (IEP)—were major feats.

When Orion turned 3 years old and graduated from the early intervention program, we had the same support services. However, except for the deafblind Birth-to-5 specialist and the blind children's program specialist, these were now provided by TSD. TSD hired Orion's first intervener, an individual with experience in working with deafblind children, who worked with both him and his teacher.

When Orion was 5 years old, he visited the classrooms at the Texas School for the Blind and Visually Impaired (TSBVI) for the first time. He went twice a week for the school day with his TSD interveners and joined in on some class activities, including yoga,





swimming, and cooking. Whether at TSD or TSBVI, he continued to work with his interveners on walking with less support, making requests, and learning about his world. The program was there for him, and we were so grateful to take advantage of it.

Now 6 years old, Orion is enrolled full time in the deafblind program at TSBVI. He rides the local school bus to and from school. At TSBVI, interveners are no longer necessary because everyone possesses intervener skills there and the staff-to-deafblind student ratio is 1:1. Orion has two classmates and a teacher, a teacher aide, and other service providers who provide IEP services and programming activities. Together, they provide a community of teachers and administrators who understand the students' needs and who ensure both that the programming is meaningful for each student and that warmth, companionship, and learning are ongoing throughout the school day ... an ideal world for our deafblind children.

In Home and Community

As Orion has grown, the role of interveners has expanded. As children become bigger, heavier, and more active, it becomes harder to pay attention to

friends' conversations, doctors' explanations, presentations, volleyball games, and church sermons. Orion wants to get up and move around rather than sit submissively in his stroller. Even eating at restaurants is difficult as Orion loves to slither off the dining

Left: Orion, age 6, with his current teacher, Jenny Otto.

benches to lay down on the dirty floor. A community intervener, with the same training as the interveners in schools, becomes essential.

At home, Orion's intervener interacts with him, responds to him, and supports him in getting where he wants to go. The intervener also ensures activities are labeled with tactile signs. She uses "object cues" (e.g., a spoon represents mealtime) to teach and communicate. Our goal is for Orion to learn language and other skills through routines he knows well, including self-care, eating, and playing. Orion leads his intervener along familiar routes inside the home. He knows where he wants to go: to the bed, to the bathtub, to a toy box, or to the kitchen table.

While Orion's intervener is with us, I can focus on being "just Orion's mom" and not Orion's parent/intervener/ teacher/physical therapist/occupational therapist. When the intervener is not

Deafblindness: Modules for Learning

We, the families of deafblind children and adults and professionals in the field of deafblindness in the United States, have adopted the Canadian intervener motto: "Do with, not for." This is discussed in one of 27 Open Hands, Open Access DeafBlind Intervener Training Modules.

The U.S. Office of Special Education Programs designated the National Center on DeafBlindness to develop modules based on the Council for Exceptional Children's competency standards for interveners for individuals with deafblindness. The last of the modules was completed in October 2016 after four years of development and collaboration among interveners, family members, deafblind individuals, interpreters, teachers, state deafblind project personnel, and deafblind consultants.

These modules are a rich resource for families, administrators, teachers, and providers of support services. In fact, they are helpful to anyone who is involved in a deafblind child's life.

For more information, visit http://moodle.nationaldb.org.



there, this all-in-one superhuman combo is what my husband and I try out of necessity to become. Our time out together in the community is rare because one of us is usually home with Orion meeting his needs unless we have a community intervener present.

The needs of a deafblind child do not stop with the child. They radiate through the family. Our other children need nurturing, too. We celebrate all our children's successes. For our older children, this means the celebration of mostly A's on report cards, receiving outstanding citizenship awards, or making it through multiple rounds at the spelling bee. For Orion, it means signing shoe and diaper and getting on his hands and knees independently. The birth of Orion has caused us to make sacrifices. Still, we are rewarded with smiles, laughter, and accomplishments of every kind that make all those sacrifices worthwhile.

The progress made by Orion and other deafblind children is not a miracle. It is the result of the informed efforts and abilities of the children's families as well as those of qualified interveners and teachers. I wish that every deafblind child had services and access to interveners and teachers of the deafblind as soon as he or she was evaluated. We were very fortunate that this occurred with Orion. The professionals—teachers, interveners, and therapists—who have blessed Orion's life have blessed our lives, too.

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Helpful Resources Related to Deafblindness

Many of the following resources have proved helpful to us on our journey with Orion. Included as well are resources that may be helpful to those individuals interested in learning more about educational programs for interveners.

- Anne Sullivan, Perkins School for the Blind, www.perkins.org/history/people/anne-sullivan
- Deafblind Intervener Training, Utah State University, https://online.usu.edu/deafblindness-cert
- ECU Certificate in Deafblindness, East Carolina University, www.ecu.edu
- A Family's Guide to Interveners for Children with Combined Vision and Hearing Loss (by Linda Alsop and others), SKI-HI Institute, http://intervener.org
- Helen Keller, Perkins School for the Blind, www.perkins.org/history/people/helen-keller
- Interveners & Intervention, Provincial Outreach Program for Students with Deafblindness, http://popdb.sd38.bc.ca/
- Laura Bridgman, Perkins School for the Blind, www.perkins.org/history/people/laura-bridgman
- Microphthalmia, Wikipedia, https://en.wikipedia.org/wiki/Microphthalmia
- A Parent's Guide to Services at TSBVI, www.tsbvi.edu/parent-s-guide-totsbvi-services
- Special Education—Dual Sensory Impairments (MEd), Texas Tech University, www.depts.ttu.edu/education/graduate/psychology-andleadership/special_education_dual_sensory_impairments.php
- Teachers of Students with DeafBlindness Pilot, Part II, Chris Montgomery, Texas SENSE Abilities, www.tsbvi.edu/spring-2016newsletter/5007-tdb-pilot-part-2
- Undergraduate Certificate (Deafblind Intervener), Central Michigan University, www.cmich.edu
- What is an Intervener? Interveners, http://intervener.org
- What is NICE? National Center on Deaf-Blindness, https://nationaldb.org



FROM THE WORLD'S TROUBLE SPOTS THEY ARRIVE IN OUR CLASSROOMS:

Working with Deaf Refugees and Immigrants

By Pamela Wright Moers

Watching my sixth graders make their cards—drawing, cutting, and gluing flowers on folded cardstock—I realized that I had a dilemma. The words I'd inscribed on the board, "Happy Mother's Day," would mean little to the women who were my students' mothers. It dawned on me that my students were writing in a language that their mothers probably did not speak or read. This did not feel right.

Fortunately, a receptionist in the next room knew Spanish, and I asked her to come to my classroom. Within minutes she entered and wrote "¡Feliz Día de las Madres!" on my board. My students' eyes widened, a few of them smiled broadly, and they copied the phrase onto their cards.

Over the next few days, I was peppered with questions: "What is Spanish for *brother?* For *sister?* For *family?*" My students—at the Arizona School for the Deaf in Tucson—could recognize the difference between English and Spanish, but they did not know the discrete words of their own family's language. A new list was called for, and I posted an additional "word wall" in our classroom with English words and their Spanish translations.

This happened back in 2004. Since then, I've worked with deaf and hard of hearing refugees and immigrants from Cambodia, Ethiopia, Kenya, Myanmar and the Karen State, and Nepal. Their families moved here with their own history, heritage, culture, and language, and ever since I saw my students' faces brighten as they saw words that their families would recognize, I've tried to put myself in their place and see the world through their eyes as well as my own.

Pamela Wright

Moers, MEd, received her bachelor's degree in English and theater arts from Gallaudet University in 1998, her master's degree in deaf education from the University of Minnesota, and is pursuing her doctorate in educational linguistics. She has worked with American Sign Language (ASL) and English language instruction for over 25 years, and both her work and her studies have focused on the various uses of language. Her research has been on language endangerment, diversity in sign language, thirdworld sign languages, and the phonological and semantic structures found in ASL. She is currently developing an advocacy program to serve deaf refugees. Moers welcomes questions and comments about this article at pamelakmoers@gmail.com.

Photos courtesy of Pamela Wright Moers



The more I taught, the more I learned just how acutely different our worlds can be. During a Halloween activity, Seana, 17, a refugee from Cambodia, asked me to explain cartoon images of a smiling witch and a zombie. Imagine her face when I told her that witches are not realthey are scary creatures who fly around in the air on brooms. Zombies are not real either, and they are worse-dead bodies that rise up to haunt those who are still living. I somehow tried to justify the connection between my description, the cartoon, and our zeal for celebrating Halloween. This felt foolish, but I realized that I could not successfully teach international students if I clung to my own worldview. Teaching started with understanding where my students came from.

My refugee students fall on a wide spectrum. Some have no discernible language; some are fluent in the spoken, written, and signed languages of their own countries. Some have lived in a refugee camp with no education; a few have grown up in thriving deaf-centered programs. Some have seen their family members killed in war; a few fled in helicopters or lived in caves. Some got on a plane to the United States with no idea where they were headed. Many have loved ones back home that they might never see again. Some have had their own names changed for protection. Some have strong social connections to their community regardless of language access; others are completely isolated. Some have expectations for behavior based on gender that are vastly different from those they

Above: Deaf refugees in Denver enjoy an evening of education and interaction during an association of deaf internationals meeting.

Countries represented in this group: Somalia, Ethiopia, Myanmar and the Karen State, Cambodia, Thailand, Iran, and the United States.

encounter here.

Many of my students have a very different view of time and may not understand how to make appointments. Some are offended by things that wouldn't cross our minds. Students from the Middle East, for example, may be offended when shown the soles of our shoes. Some have food restrictions and are forbidden to touch that pepperoni pizza everyone else is scrambling to get on their plates. Susan Lane-





Left: Taw describes how he hunted for food in Myanmar and was able to sell that batch of food for a good profit.

how inaccurate this evaluation had been. As he learned to trust his teachers and interpreters, he demonstrated a fluent use of his own sign language. He discussed the solar system, how to hunt for food and defuse land mines, and he completed algebraic equations. This was in no way a cognitive improvement; it was simply the result of Taw being able to show his capabilities because of his increased security and trust. His educational team completed a new evaluation with very different results.

Further, notes Lane-Outlaw, evaluations sometimes have a cultural bias. Dogs, for example, beloved by so many in the United States, are considered dangerous or

Outlaw, executive director of the Metro Deaf School in St. Paul, Minnesota, where 30 percent of the students are refugees, noted that some students might hoard food. Others will not know their own names or the names of family members (personal conversation, 2017).

The students bring a set of needs completely different from those of their U.S. counterparts. Their learning depends on responses to the following questions:

- Where did they come from?
- What have they experienced?
- What did they leave behind?
- How did they get here?
- What happened during their move?

For students who are deaf or hard of hearing, an even more important question may be: "Do they have a language?"

All of these factors affect the student's transition and should shape how the educational team addresses the student's needs. Lane-Outlaw noted that schools

should not rush to evaluate students, as results may change as students become more comfortable in their new environment. This happened to Taw, one of my students who is part of the Karen ethnic minority that relocated to escape murder, rape, and forced labor. When he lived in Myanmar, Taw first attended a program for "silent people," which means "deaf people" in Karen culture, and learned both sign language and speech. Unfortunately, this did not continue. The people of his village were moved to a refugee camp where Taw became an easy target for the overseers' impatience. For self-preservation, Taw learned to remain in the background, his affect flat and minimally responsive. He wanted to be left alone.

When Taw first arrived at his new school in the United States, he was evaluated by the school psychologists. They concluded he had an IQ of 63 and no functional language. A few months later, Taw, now adjusted to his new home and knowing he was safe, showed

Language
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word level all the
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and keep jobs.



dirty in some parts of the world. Escalators and cotton candy, so familiar to American children, may be new for refugees. Nevertheless, schools may be instrumental in bringing families into the American experience, and this allows them to support their children's education. Lane-Outlaw noted that hiring spoken language interpreters did not bring parents to Parent Teacher Nights at the Metro Deaf School, but when the focus of the meetings changed to that of parents' culture of originwhen parents were invited to Latinx, Hmong, or African Nights and shared food—attendance reached 70 percent.

Working with language instruction in American Sign Language and English, I am often reminded that young people, including the refugees, will not understand the need for English language competency until the day they cross the threshold into adulthood and

need to support themselves. Doors will open or close for them depending on their range of ability.

Deaf and hard of hearing refugees and immigrants don't have the same starting line as their native-born peers. Their time is far more limited, with sometimes just a year or two of schoolage eligibility, and they have much to accomplish. School isn't just about education—it may be the only place where they have the communication they need to help them make sense of their new world. It may be the only access they have to vital information needed to navigate the changes in their

Language instruction must extend from the word level all the way to linguistic and cultural expectations; only the full breadth of language instruction will help them get and keep jobs. Communication must become a

collaborative process, with explicit tracking of feedback and comprehension. Understanding can't be assumed. Conversations require intensive focus, but the rewards can be enormous.

Four years after learning about Halloween, Seana graduated from the Minnesota State Academy for the Deaf. During the graduation ceremony, she crossed a room with a "love letter" in her hand as a part of a graduation activity led by Kathleen and Chris Cornils, the parents of Eric Plunkett, a former Gallaudet student. The Cornils want families to have one moment where they stop, connect, and share cherished thoughts. During this activity, students and their families exchange letters of love and gratitude. As valedictorian, Seana placed her love letter in her parents' hands. It was written in the flowing script of Khmer.



NEW Activity Guide for Early Intervention Professionals



supports Setting Language in Motion

Setting Language in Motion, a free, web-based resource, was launched last year with seven modules to share information critical to promoting early language acquisition for young children who are deaf or hard of hearing.

The Activity Guide for Professionals: Setting Language in Motion, developed for early intervention professionals, has been added to accompany this resource to share ideas, strategies, and resources to expand on each of these topics. This online guide includes over 40 activities, organized to enhance each module, based on the contributions of experienced early interventionists on the front lines.

Look for the activity guide on the Clerc Center's web page for Setting Language in Motion at clerccenter.gallaudet.edu.

clerccenter.gallaudet.edu

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Dispelling Myths Related to Deaf and Hard of Hearing Students

WHO ARE NEW TO THE UNITED STATES

By Pamela Wright Moers

MYTH #1:

A deaf or hard of hearing refugee or immigrant can easily benefit from mainstream English as a Second Language (ESL) classes or programs.

ESL teachers are excellent educators who recognize the importance of teaching English while respecting a child's home language and culture, but the typical ESL program assumes that the student already has a foundational spoken language. This may not be true for deaf or hard of hearing children. The ESL curriculum often develops language acquisition through first receptive and expressive skills, which means, in most

instances, listening and speaking and then reading and writing (Cummins & McNeely, 1987; Cummins, 2000). For hearing students, new sounds are often difficult to speak, process, and even hear—and for deaf and hard of hearing students speaking, processing, and hearing may be even more challenging or impossible.

When Seana, a student from Cambodia, tried to take ESL at a nearby public high school, the classes focused primarily on hearing and speaking while reading simultaneously, requiring Seana, a visually dominant student, to watch the interpreter or teacher, seek out unfamiliar words on a page—sometimes in an unfamiliar alphabet—while also watching an unfamiliar sign language, and make sense of the input. She became deeply discouraged.

Instead of ESL classes, direct language instruction by a language instructor familiar with multilingual needs would benefit most deaf or hard of hearing immigrant students. This can happen with the use of a deaf language model or one-on-one language instruction with the student in the classroom. A high school in the Denver area of Colorado provides its deaf international students with deaf language models working alongside the regular classroom interpreter. This is written into the student's Individualized Education Program, making fluent language access a legal requirement.

MYTH #2:

An interpreter, either oral or sign language, is sufficient to provide the student with access to the curriculum.

It may seem obvious that using ASL can't magically produce understanding for someone who only knows the sign language of another country. Unfortunately, people use ASL with immigrants and assume that comprehension occurs. Some deaf interpreters are fluent in International Sign Language, but few international students understand International Sign Language. If a refugee already knows some sign language, he or she will have a head start in learning ASL but still need a starting point. The service provider and the student need to find common ground linguistically before progress can occur.

While a deaf mentor worked with Taw, she learned his sign language before attempting to teach him ASL or English. One day, Taw told a story about catching a softball-sized hopping animal for dinner after rainstorms. After struggling to put those concepts together to identify which animal Taw was talking about, the mentor searched online for images of "hopping animal." Taw pointed to an image of a frog and laughed. The mentor realized her cultural understanding of frogs did not include the size, rainstorms, or dinner, but images online helped them establish understanding and continue their conversation. Using images on the Internet can prompt language production and give teachers insight as to the strength of the student's first language base.

If the student is hard of hearing and can speak and partially hear language, it doesn't mean that he or she can hear enough to use a spoken language interpreter. If the spoken language interpreter has a different accent, the student may not understand the interpreter at all. Mariposa moved to Arizona from Equatorial Guinea, where she interacted easily with her family and peers as an oral-aural student. Spanish is the

language of her country, and during her

transition she was given a Spanish interpreter. However, the pronunciation of Spanish varies, and she could not understand the interpreter. Furthermore, almost all the other Spanish speakers around her were of Mexican descent, and she could not understand them either.

Learning the phonemic differences unique to a language is

difficult enough for hearing people. Expecting hard of hearing students to accomplish the same with less aural access and no additional support is setting them up for failure. For Mariposa, her transition became an isolating struggle. Using a Spanish language dictionary as a reference, Spanish speech therapy, and pull-out sessions helped. She was able to use support to build on her pre-existing knowledge base.



MYTH #3:

A refugee or immigrant who uses sign language will immediately prefer deaf programs or center-based schools.

Haweeyo is a Somali girl with a perky personality and infectious smile. Fluent in Ethiopian Sign Language from the camp in which she grew up, she uses an interpreter in mainstream classes. Presented with the option to attend a deaf residential school, she declined. The school did not offer Halal food and there were no other Muslim students. In the mainstream, Haweeyo doesn't have many deaf friends, but she has other Muslim girls who cherish her. She interacts through gestures

with these girls, then connects with other deaf Somalis worldwide, signing in ASL and Ethiopian Sign Language, through her phone several times a day. Just because a student prefers to use sign language does not mean he or she would prefer to be away from his or her culture. A student's religious and cultural community should receive the same respect as his or her communicative needs; and the student should have the opportunity to make an informed choice concerning his or her placement and program.

MYTH #4:

Art and gym classes require no accommodations. Hands-on learning encourages student involvement and precludes the need for assistance.

It's easy to assume that art and gym classes, with more hands-on activities, would be the perfect learning opportunity for deaf and hard of hearing students who are immigrants or refugees. This isn't always true. In Taw's mainstreamed photography class, the teacher spoke quickly in a stream of precise and sometimes technical English: "Go to file ... make a new ... check the inches ... make sure its 8x10 ... 300 dpi" For Taw, it was impossible to watch his interpreter and locate the

English words on his screen, much less follow the sequence quickly. Pointing to the icons and words on the screen did not work either; he couldn't retain the steps. After he experienced several days of a growing hate for the class, his deaf mentor came up with an idea. With two computers set up side by side and the same programs open, the deaf mentor demonstrated the steps on her screen and then explained the purpose for each step while Taw followed on his own computer using his own mouse. After a couple of demonstrations, Taw was able to finish his photography projects independently and he easily memorized the steps.

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American Annals of the Deaf

Special Issue on Deafblindness | Fall 2016 | Volume 161, Number 4



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Success in Two Languages:

Focused Programming Provides On-Target Development for Maine Preschoolers

By Karen Hopkins

Among the pine tree forests of Mackworth Island, just across the water from Portland, Maine, deaf, hard of hearing, and hearing children flourish in the Mackworth Island Preschool Program at the Maine Educational Center for the Deaf and Hard of Hearing/Governor Baxter School for the Deaf (MECDHH/GBSD). At MECDHH/GBSD, we immerse our students, 3-5 years old, in American Sign Language (ASL) and spoken English, enrich their sense of Deaf identity, and teach them alongside their hearing peers.

Our program was developed in response to three groups:

- State Department of Education—Maine requested that all preschools offer inclusive programming. For a program for deaf and hard of hearing children, that meant enrolling hearing children.
- Parents—With the advent of digital hearing aids and cochlear implants, many families requested a program in which use of spoken language was added to or replaced use of ASL.
- Educators—The teachers and staff of MECDHH/GBSD noted that more deaf and hard of hearing children were entering kindergarten already behind their hearing peers and without a strong language base. We wanted to teach those children while they were in preschool, recognize, support, and strengthen their Deaf identity, ensure they developed a strong language base, and ensure they were ready when the time came to enter kindergarten.

Photos courtesy of Karen Hopkins







First the Research

Originally part of a program in which deaf and hard of hearing children learned in a single classroom, we knew change was critical. As far back as 15 years ago, parents had encouraged our early interventionists and preschool team to increase focus on use of cochlear implants, listening, and spoken language. More recently, many families offered feedback in annual written surveys and parent-infant support meetings, stating that they wanted their children to attain goals in both ASL and spoken English.

Our focus became building a strong early childhood program that fostered growth in language development and literacy in both ASL and English and ensured our students were ready for kindergarten. We also wanted to foster children's social-emotional growth and support their Deaf identity. We would team teach and ensure deaf and hard of hearing adults were included on each teaching team. We would provide opportunities for children to interact with a variety of adults throughout their day.

We would have high expectations for our young students, and we would establish a pair of classrooms—one that would support students' development of ASL and one that would support students' development of spoken English. We would foster student interaction with peers and adults, both deaf and hearing, and provide specialized technical support. We would honor the language choices of families while offering children a time to make choices of their own.

Today we have it—a bilingual, bimodal, inclusive, deaf education preschool program that continues to evolve based on

Above, clockwise from left: Children at MECDHH/GBSD have the opportunity to learn from deaf adults; ASL/English story time for all; children who have spoken language goals have the opportunity to have morning meeting in spoken language.

the needs of the children and our continued research. Children with a range of language and communication styles are guided to play, interact, and explore their environment. Our classrooms and our island serve as a palette for children's learning, directed by the children and nurtured by the staff, to promote growth in all areas indicated in state and national education guidelines.

Adults Collaborate, Children Choose The Magic of a Door

We sought guidance from contractors to install a door between the neighboring classrooms for ASL and spoken language. Little did we know that this door would become part of the magic of our program. While each classroom offered exclusive use of a single language, the door provided a physical and symbolic connection. It represented openness and a sense of collaboration.

At MECDHH/GBSD, each child's individual language plan, crafted with his or her family and based on individual language and communication goals, is the force that guides the child through various experiences in one or both languages throughout the instructional portions of the day. Whatever their language and goals, when children arrive they are immersed in one language at a time. In the ASL classroom, they use visual language and in the spoken language classroom, they use auditory language.



Every morning they enter either the ASL or the spoken language classroom for their morning routines, snack, and morning meeting. While some children start their day in the same language every day, others may begin their week in one language and switch to another language later in the week. The door between the classrooms opens at a specified time.

This is the "child choice" portion of our program that we call "center time," during which children explore the learning centers in the classroom of their choice. Children engage daily in these centers, which are the same in both classrooms, choosing between the spoken language and the visual language classroom to engage in block building, dramatic play, art, writing, book exploration, sensory experiences, and small manipulatives.

The children play as they wish and the teachers interact with all the children who enter the play space in the designated language of their classroom. Exposure to one language at a time is our goal. The children, however, communicate as they choose. An ASL interpreter is subtly present in the spoken language classroom to facilitate communication and ensure access to auditory information for children without auditory access.

At times we see children using spoken language in the ASL classroom or ASL in the spoken language classroom. This changes as children become more comfortable in both languages and follow their adult language models. Our teaching and therapy team observes children's preferences and skills and sees where developmental growth and language preferences emerge.

Both classrooms have been acoustically modified to minimize background noise and reverberation. Hearing assistance technology, compatible with individual children's personal hearing aids and cochlear implants, is used throughout the school day in both classrooms. Each classroom is equipped with Phonak Roger WallPilots and Oticon Amigo eZync units. These devices automatically place each child's hearing assistive technology on the appropriate network or FM channel based on which room they enter. They provide automatic access to the teacher's verbal instruction in the spoken language classrooms and automatically prevent the children in the ASL classrooms from overhearing instruction in adjacent rooms.

We use the "Opening the World of Learning" curriculum that is aligned with the Maine Early Learning and Development Standards. This curriculum covers all domains of early learning. Each unit is built around a daily routine within an activity-centered day. It has a strong literacy component that ensures kindergarten readiness for our students.

The hearing students—children of interpreters, our staff, deaf

Left: Our door of openness—bridging two worlds and two cultures.

adults, and parents who want their children to be fluent in ASL—are screened to ensure their linguistic, cognitive, and social-emotional development are within the typically developing range. They have turned out to be phenomenal language models for both our ASL and our spoken language students and raised expectations for all our preschoolers.

Assessment: Always Critical

Throughout the year, children are observed and assessed both formally and informally. The staff uses standardized assessments, anecdotal evidence, checklists, progress reports, and portfolios to document what children are learning and how they are acquiring new information. Data is collected for the goals of each child's Individualized Education Program (IEP) and preferences for communication. This information guides developmental and language planning for children and provides the basis for discussions with families on language and communication growth.

Each child's path to becoming kindergarten ready is unique; therefore, systematic individualized planning and monitoring of the development and use of each language is central (Nussbaum, Scott, & Simms, 2012). The Mackworth Island Preschool uses an assessment package, aligned with the Maine Early Learning and Developmental Standards, that looks at:

- Personal and social development
- Approaches to learning
- Creative arts
- Early language and literacy
- Health and physical education
- Mathematics
- Science
- Social studies

Additional assessment tools focusing on the child's language and communication skills include:

- California ASL Assessment Checklist
- Cottage Acquisition Scales for Listening, Language, and Speech
- Auditory Skills/Functional Listening Assessments
- Pragmatics Language Scale

Communicating with Parents

We encourage communication between parents and children through daily communication logs, newsletters, face-to-face meetings, e-mail, and phone. Regular communication allows us



to relay information about the child's day, which is important for communication carry-over at home. Parent-teacher conferences allow for in-depth discussions on each child's language growth and communication. At IEP meetings, information is shared related to how the child communicates; observations, assessment data, and parent information are discussed. The child's language plan often changes based on input from the parents, teacher, and therapist.

Families have the option of participating in ASL classes at no cost, either on site or via distance learning. The IEPs of some children specify that parents train in ASL. Occasionally families wish to participate in spoken language therapy sessions with their child. Family involvement is a critical factor in the language development of deaf and hard of hearing children, especially when the parents are hearing (Baker, 2011).

Scheduling time for planning is integral, and professionals meet and plan together weekly. We look at day-to-day events, collaborative planning for the curriculum, sharing perspectives on assessment data, parent connections, and what we call "Kid Talk" for which all the professionals on a child's team come together and discuss the strengths and challenges they see in each child. Observations are shared on how the child is choosing to communicate throughout his or her day.

Bilingual Achievement, Academic Success!

Last year, 90 percent of our students passed kindergarten screening at their public school, and the 10 percent of students who were not considered kindergarten ready had additional disabilities. Accommodations, such as ASL interpreters or hearing assistive technology, were provided, and schools were impressed with the skills of our children.

We have noticed that once children start getting a strong base in one language, they begin developing skills in a second language fairly quickly. We have seen this most often with the hard of hearing children and children with cochlear implants. Some children develop a firm base in English but code switch for their peers or teachers in the ASL room, and others develop a strong base in ASL but code switch for their spoken language peers and teachers in the spoken language environment.

Our children are often able to go back and forth between the "listening and seeing" classrooms, responding appropriately to their environment and communicating fluently in ASL or spoken English. We have also seen what linguists call "pragmatics" developing; children take turns, extend their conversations, and, perhaps the most enjoyable pragmatic development of all, use humor. We watch as our children joke with their conversational partners and laugh at funny situations.

Our children show social awareness, interest, and empathy for other children in ways we hadn't seen in the past. They are more self-aware and self-confident. As our students explore, they become flexible learners. They direct their own language learning. For example, we had one family who wanted the child to focus on spoken language. The child spent morning, lunch, and instructional time in our spoken language environment. Once the door between the two classrooms opened, however, the child was drawn to the ASL classroom and began to spend more time interacting with both adults and peers in ASL. His ASL blossomed and his spoken language skill increased as well. We had another family who chose ASL as the dominant language for their child. Accordingly, the child had his morning, lunch, and instructional time exclusively in the ASL classroom. However, once the door opened, this child chose to spend time in the spoken language class and his primary language became spoken language.

We have seen children adapt to both environments, playing differently in each depending on which language they and their parents have identified as "primary." If the environment is that of his or her primary language, children play more independently, show more leadership skills, and explore more materials. Often children's personalities change from one room to the next; they are more outgoing and interactive in the communication environment with which they are more comfortable.

Early research in bilingual education found cognitive benefits from learning two languages; bilinguals have been reported to have greater cognitive flexibility and greater sensitivity to linguistic meaning than monolingual children (Moeller, 2000). Multisensory approaches to language acquisition ensure that when one pathway is less effective, another pathway can be used as an avenue for language learning (Moeller, 2000).

To us, what we see is beautiful because it is children making choices and responding to their own comfort and needs in a natural manner for preschoolers. As they choose to play with different materials, children, and adults, they are developing skills in ways their families never imagined. The face of deaf education has changed, and it will continue to change as new technologies and research support the development of bilingualism and auditory and visual learning for deaf and hard of hearing children.

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Success Through Dancing: Teaching Skills and Awakening Young Souls

By Tara Miles

Dance, the art that sweeps into us and awakens our souls, has an important place in the lives of deaf and hard of hearing students. It can help them with self-expression, self-worth, problem solving, team building, and academic learning. Studies reveal that dance classes can have a positive impact on student achievement, teacher satisfaction, and school culture (Bradley, Bonbright, & Dooling, 2013).

Fortunate to be the performing arts teacher at Kendall Demonstration Elementary School (KDES), part of the Laurent Clerc National Deaf Education Center, in Washington D.C., I see this happen every day as children from kindergarten through high school use dance to tell the stories of their lives, to understand more intimately the meaning of English text, to work together, to express their joys and sadness, and to connect more deeply with each other.

For example, last fall a student whose family was new to the area joined my performing arts class with her mother's encouragement. She was so shy and scared; at first, she would not dance at all. Slowly she warmed up, however, and she began to show her true dance skills—which are awesome. Through her success in dance, she developed a sense of accomplishment and belonging. Dancing helped her adjust to her new school. We are still working on bringing out her beautiful personality, but I know that she has a great future ahead of her if she continues with dance.

I had a similar experience with another student who began taking classes with me when she was in second grade. She wasn't shy, but she was a little self-conscious about her body. She participated in dance and the self-consciousness evaporated. It was amazing to see her blossom, and she improved every year. In high school, she even joined a dance team. Today she is in college, putting dance on hold to focus on her studies.

In opening ourselves to our emotions and talents, dance can provide an important gateway to success. I discovered this myself when I was a student at Howard University,

Photos by Susan M. Flanigan





the historically black college in Washington, D.C. I was one of the few deaf students there, and the only deaf student on Howard's Ooh-La-La dance team. We performed during football games, and we practiced on the field for hours.

Trying out for the Ooh-La-La dance team had been especially difficult for me because I had auditioned for the dance team in high school and been rejected. Later, as my skills and confidence grew, I would wonder about that first failed audition: Could they have rejected me because I was deaf when most of the students were hearing? Was it because I was African American when most of the students were white? In any case, as a new student on the field of a venerated university in the nation's capital I had risked rejection again, and this time I had been successful.

Frustrated by so many aspects of being deaf in a university structured for those who hear, I decided to attend Gallaudet University, the famous school for deaf and

hard of hearing students also located in Washington, D.C., only a few blocks from Howard. Right before I left for Gallaudet, I found myself in another audition—this time for the Cleveland Cavaliers, one of the nation's leading professional basketball teams. I felt uncomfortably conscious that I was competing with my former schoolmates from the same team that had rejected me. However, my former schoolmates were eliminated in the first round. I made it to the final audition, which I didn't attend as I knew I was leaving for Gallaudet.

I learned that Gallaudet had a dance company from my mother. I was shocked. Deaf people dancing? When I saw how naturally and gracefully the dancers performed, I was smitten. Joining the Gallaudet Dance Company became one of the ways that Gallaudet opened my eyes and changed my life. I still feel indebted to Sue Gill-Doleac and Diane Hottendorf, who led the company, for allowing me to dance with them.





I got my first experience teaching there, and I realized my true calling was teaching dance. In 2001, I began working at KDES. As the family educator, I serve as a liaison between students and parents. I also teach performing arts three times a week, working with third to eighth grade students.

Dance is important for all students, but it is especially important for deaf and hard of hearing students. Dance is visual, and students can learn to dance without barriers. My students love to interpret songs; this enables them to emotionally experience the songs and the meaning of the lyrics. They learn to incorporate expression in movement, create and share stories, and experience and share the depth of the message they convey.

Above all, learning to dance allows students to take risks and to be successful. Some students may learn to dance slowly, but they still learn. No one regresses. A few of our students have low muscle tone and other physical disabilities, and dancing really helps them. With an open mind and an open heart, they are able to do the movements. By the end of the school year,

they are right there performing and keeping up with the other students. They are able to use movement to express themselves. This is the common goal for the students. It doesn't matter which method we use; students being able to perform and feel good about themselves is the desired outcome. Unfortunately—even in the age of Nyle DiMarco, who won the televised "Dancing with the Stars" competition—some parents don't understand that being deaf or hard of hearing is no bar to dancing. Yet there is little difference between how deaf and hard of hearing children and hearing children respond to dancing. Everyone, no matter what his or her hearing status, is born with an innate sense of rhythm.

One of the first things we teach is rhythm exercises. Students learn to internalize counting, develop kinesthetic memory, and follow patterns and counts. We teach them how to warm up their bodies, and we practice various drills, moving across the floor in ways that will aid students in learning choreography later.

As students learn technique and gain confidence, we add more difficult steps and we teach them to work together. When performers are on stage, their bodies must communicate with each other as well as the audience. I always tell my students that they are setting an example for other deaf and hard of hearing children. They lead by example, and they may have a strong influence both on their peers and on younger students.

For example, last year we journeyed to the Maryland School for the Deaf (MSD), in Columbia, to participate in the school's Black History Month program. Not only did the students perform but they gave a workshop on dance. They taught the other students how to warm up and even taught them a hip hop dance. In the end, this enriched our students' self-esteem and gave the students at MSD a chance to be a part of something great!

Our students are so creative and skilled. I throw everything at them—the most complicated dance moves from the top of the advanced classes. Sometimes they try to tell me they can't do it, but I refuse to let them even say that word. They always end up able to execute their moves, and they are so proud when they succeed. Then the struggle seems worthwhile; sometimes they even tell me, "It's easy!"

Every year we put on a huge end-of-the-year performance at KDES for students in grades K-8. We also create comedy videos making jokes and telling funny visual stories. I try to empower students to come up with ideas for the videos. The performance



Dance is important for all students, but it is especially important for deaf and hard of hearing students. Dance is visual, and students can learn to dance without barriers.

showcases American Sign Language (ASL). Students perform poetry, stories, and songs translated into ASL. Large numbers of families fill the auditorium to watch the show. Each year parents are amazed at the capabilities of their children. Some of them are in tears watching the beauty of dance as their children perform.

What I have discovered is that

dancing fosters students' emotional growth. They gain confidence in themselves. Their sense of awareness heightens. Teaching dance to deaf and hard of hearing children allows them to have the same kind of experiences as those of hearing children. It allows them to be open to taking risks, solving problems, figuring out solutions, and working together. Through dance, deaf and hard of hearing children thrive and grow.

I will continue to plant "the dancing seed" in our deaf and hard of hearing students. When we give the students the opportunity to learn something or to be a part of something special, their success becomes our own. I have been teaching dance for 23 years, long enough to see students graduate, attend college, and still carry the love for dance with them. Watching them succeed is the greatest feeling a teacher can ever have.

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Summer is for Dancing

By Tara Miles

The San Antonio Deaf Dance Company is perhaps the only deaf dance camp in the United States. The company brings in deaf professional dancers, deaf actors, and deaf filmmakers. Deaf and hard of hearing children from fifth through twelfth grade learn the genres of the performing arts, including dance. It is an amazing experience.

The camp is especially important because most campers are mainstreamed in public schools and come from families where neither English nor ASL is used in their homes. Often this means the camp—in addition to providing a rich experience in dance and the performing arts—allows campers to interact with deaf professionals and other deaf and hard of hearing teens like themselves for the first time.

As they participate in camp activities, the campers see themselves as part of a culture—as members of the Deaf community—and they come to appreciate ASL for the first time. The students that I meet at the beginning of the camp are not the same students I see leaving at the end of camp! Each year, I have had the joy of watching them grow.

For example, Diana Cervantes, a shy 12-year-old when I first met her, has blossomed into a powerful student and awesome performer. Diana loves dancing, and she has returned to camp as a volunteer to help us, working with other young deaf campers and teaching choreography. So many campers, like Diana, develop self-worth through the experience of learning to dance, working with other deaf dancers, and expressing themselves through performance. They are empowered. They respond in amazing ways.

This is what inspires me the most—seeing students take what they learn and put it into action with other students. I believe that dancing is a gift that keeps on giving. It helped bring success into my life, and it continues to bring success into the lives of young deaf and hard of hearing dancers ... and it will do so for generations to come.



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Five Factors Leading to Deaf and Hard of Hearing Students' Success: Perspectives of a Veteran Teacher

By Kelly K. Metz

As educators of deaf and hard of hearing students, we must close the gap that too often exists between a student's grade level and his or her actual achievement. Delays in developing and using English can lead naturally to delays in overall academic performance, and sometimes the gap between the student's grade level and his or her academic performance persists throughout the student's entire academic career (Scheetz, 2012). When a student who is deaf or hard of hearing does not have any concurrent disability, grade-level performance is attainable—and it is our responsibility to make sure our students attain it.

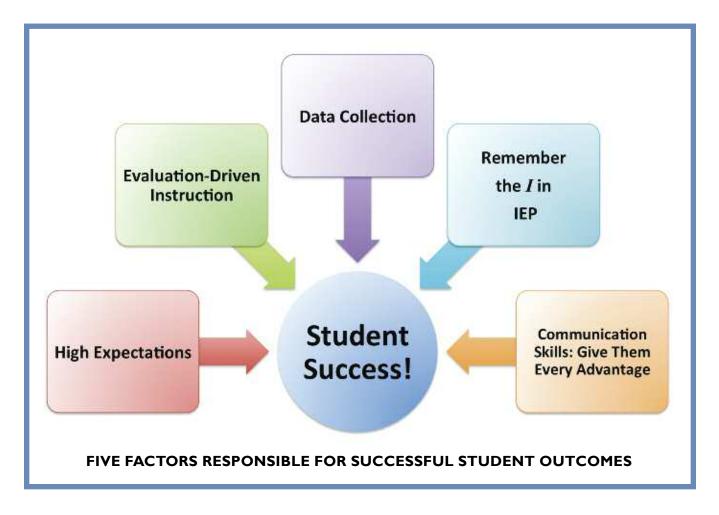
This may not be easy. Sometimes students' achievement scores are several years below their grade levels, and teachers must make more than one year of progress in one year's time—and we must do so continually. As a seasoned educator who has experienced success at closing the gap between grade level and achievement for many deaf and hard of hearing students, I offer the following perspectives on five factors responsible for successful student outcomes and closing the persistent but unnecessary gap between performance and grade level.

1. High Expectations

Researchers have found that both high teacher expectations and teacher credibility have a positive effect on student achievement (Fisher, Frey, & Hattie, 2016). When teachers have the high expectation that the student will attain grade-level competence, they have completed the first step in making grade-level competence an attainable goal. Of course, this does not mean skipping over pre-requisite skills and simply providing ongrade level instruction for students who do not yet function on grade level. We do not teach long division to a student who has not yet mastered subtraction.

Illustrations courtesy of Kelly K. Metz





High expectations translate into an urgency to hit the ground running and not waste instructional time. This can mean using classroom management procedures to reduce transitional time or taking advantage of creative ways to infuse instruction into transitional times. For example, teachers might drill spelling words, vocabulary words, or math facts while students are waiting in line or passing between classes.

The teacher's sense of urgency, caring, and concern may increase his or her credibility with students, and this may result in greater student motivation and engagement. I have found that when a student is having difficulty mastering a given skill, one way to decrease the student's frustration and anxiety is to offer encouragement with statements similar to these: Don't worry, (name of student). The reason you are not yet able to do (the target skill) is because I have not yet found the best way to explain it to you. Be patient with me, and I will find a better way to explain or demonstrate until you understand and are able to succeed.

2. Evaluation-Driven Instruction

Evaluation results determine skill deficits as well as strengths, weaknesses, and learning styles. What to teach (i.e., skills, content) and how to teach it (i.e., methods, strategies) are based on assessment results. The following is a partial list of instruments and procedures that are useful in a comprehensive evaluation both for determining the educational impact of the student's hearing level and for making programming decisions about educational placement, teaching methods, and strategies:

• Records review—A thorough review of academic records may yield valuable information about current student performance. At minimum, this includes previous report card grades and the results of any district or statewide achievement testing. If a student has previously received or even been referred for special education services, there may also already be individual evaluation results from an educational psychologist, therapist, and/or special educator.



Table I: Sample Data Collection Page for Vocabulary Acquisition

Word List	Demonstrates Receptive Comprehension			Demonstrates Expressive Use			Comments:
	Sign	Voice	Read	Sign	Voice	Write/ Spell	
Sunday	111	0, 0, 0	1, 1, 1	111	1, 1, 1	1, 1, 1	Unable to speech read Sunday. Voices gross approximation that is comprehensible in context
Monday	111	1, 1, 1	1, 1, 1	111	1, 1, 1	0, 1, 1	Can speech read in a closed set as it is the only one that starts with /m/
Tuesday	111	0, 0, 0	1, 1, 1	111	0, 0, 0	0, 0, 1	
Wednesday	111	0, 0, 0	1, 1, 1	111	0, 0, 0 /wĕ-dā/	0, 0, 0	
Thursday	111	O, 1, 1 +2/3 trials	1, 1, 1	111	O, O, O sounds like thirty	0, 0, 1	
Friday	111	0, 1, 1 +2/3 trials	1, 1, 1	111	0, 1, 1 +2/3 trials	1, 1, 1	Ashley's favorite day of the week and the first one she learned to spell!
Saturday	111	0, 0, 1	O, 1, 1 (+2/3 trials)	111	0, 0, 0	0, 0, 1	Was able to speech read the 3rd time after I pointed out the number of syllables
Total # Mastered	+7/7	+3/7 in a closed set	+7/7	+7/7	+3/7 in context	+2/7*	

Key: 1 = Correct, 0 = Incorrect, NR = No Response

*Ashley can correctly fingerspell the abbreviation for all the days of the week but only consistently spells the entire word correctly for <u>Sunday</u> and <u>Friday</u>. She does not consistently capitalize the words when writing them. KM

Screening Instrument for Targeting Educational

Risk—This instrument is helpful for conducting a quick, informal assessment of a deaf or hard of hearing student in comparison to his or her hearing peers. The classroom teacher is asked to rate the student's performance on a five-point Likert scale in the areas of academics, attention, communication, class participation, and school behavior. This instrument yields scores of pass, marginal pass, or fail in each of these five areas (Anderson, 1989). It is easy to administer and score, and is available free of charge at https://successforkidswithhearingloss.com/uploads/SIFTER.pdf.

IV)—This instrument measures academic achievement in individuals from ages 2-90+ years. It contains 20 tests measuring four curricular areas: reading, math, written expression, and general academic knowledge. The instrument yields standard scores with a mean of 100 and a standard deviation of ±15. When evaluating a student whose primary mode of communication is American Sign Language (ASL), the test should be administered by a qualified teacher or clinician who is fluent in ASL. The examiner's manual includes a section with guidelines for

using the tests with individuals with a hearing loss. In

addition to the WJ-IV tests of achievement, Woodcock-

Woodcock-Johnson IV Tests of Achievement (WJ-

Iohnson has a complete battery of tests, including the WJ-IV Tests of Cognitive Ability and the WJ-IV Tests of Oral Language (Schrank, McGrew. & Mather, 2014). At the beginning of testing sessions with deaf or hard of hearing students who use hearing devices (e.g., hearing aids, cochlear implants, FM systems), be sure to conduct a listening check. If a student's devices are missing or not

functioning properly, it is best to reschedule the testing session. If there is a problem with the student's devices, or if any accommodations are made during the evaluation, be sure to consider this when interpreting the results and make note of it when writing the evaluation report (Metz, 2011). If the student's preferred mode of communication is ASL, ensure the test is administered by an examiner fluent in ASL.

3. Data Collection

Data collection is necessary to document mastery of skills and progress towards the goals of the Individualized Education Program (IEP) and state standards. When the data show a lack of satisfactory progress, a change is needed in instructional methods. General education teachers tend to use rubrics associated with various assignments as an objective way of determining if unit and lesson goals have been mastered. Similarly, as a teacher of deaf and hard of hearing students, I use a variety of data collection sheets associated with IEP goals and objectives to determine and document mastery of skills. See Table 1 for an example of a data collection page for documenting vocabulary acquisition.

4. Remember the 'I' in IEP

Don't forget the *Individual* in the IEP. This applies to educational placement and services as well as to communication



modality and instructional methods. There is no "one size fits all" in deaf education. Different students benefit from different educational placements and instructional strategies. Moreover, the same student may benefit from different placements and different instructional strategies at different times in his or her life. The challenge for educators is to consider the needs of the individual student as well as his or her family in order to arrive at the best option for the student.

Placement options available for deaf or hard of hearing students include schools for the deaf, self-contained classes or resource room support at the local public school, and full inclusion in general education classrooms, often with support from an itinerant teacher of the deaf and hard of hearing. Itinerant services may include equipment management and consultation services to ensure the deaf or hard of hearing student receives the appropriate accommodations or modifications needed to progress in the general education curriculum as well as direct instruction to provide intensive or alternative interventions. Another promising educational placement option for deaf and hard of hearing students, neither widely known nor widely available, is "co-enrollment," in which a critical mass of deaf or hard of hearing students—one third to one half of a given class—is included in a general education classroom that is co-taught by a teacher of the deaf and hard of hearing and a general educator who share equal responsibility for all of the students. Co-enrollment may have the potential to provide the best of both worlds to deaf and hard of hearing students: access to their hearing peers and to the general education curriculum as well as direct communication with deaf peers and staff who sign (Antia & Metz, 2013).

5. Communication Skills: Give Them Every Advantage

We would serve our students well if we spent less time debating the merits of manual versus oral communication and more time getting them to grade level by giving all of our students every advantage to develop all of their communication skills to the fullest extent possible. This means supporting bilingualism and maximizing skills in both sign and oral communication. It would be wrong for a deaf child whose primary mode of communication is sign language not to be provided with a qualified sign language interpreter when placed in a general education classroom. Likewise, it would be wrong for an oral hard of hearing child who is attending a school for the deaf not to receive instruction through spoken language. We ought to give our deaf and hard of hearing children every opportunity to achieve their full potential in every communication modality: signing, speaking, reading, and writing. No child should be denied access to fluent communication during the developmental years. Regardless of what communication modality is used, "the consensus within the field is that ... input of language must occur before the age

of 2 if normal language development is to occur" (Scheetz, 2012).

In addition to developing bilingual skills in ASL and English, we should provide our deaf and hard of hearing students with other opportunities to learn different languages, signed and spoken. Deaf students who are immigrants from other countries could become fluent in both ASL and the signed language of their country of origin, giving them "the potential to return to their countries of origin as Deaf social activists" (Call, 2010).

Whether learning another language, solving math problems, or completing a social studies assignment, deaf and hard of hearing students should work on grade level. If they are not doing so, it is our responsibility as teachers to assist them in catching up. When teachers begin with high expectations, use assessment data to tailor instruction, and ensure full communication, they can help students progress academically to grade level and achieve equally with their hearing peers.

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Christopher Hayes, MA, CED, is an itinerant teacher for deaf and hard of hearing students in Highlands County, Florida. He earned both his bachelor's degree in deaf studies and his master's degree in deaf education from the University of Arizona. Shortly thereafter, he received professional certification from the Council on Education of the Deaf. Hayes has been part of the Florida leadership team for the National Deaf Agenda and helped develop Florida's Communication Plan for deaf and hard of hearing students. His other interests include classroom acoustics and how this impacts not only children with hearing loss but all learners and how to bridge the gap between audiology, parental involvement, and school services in the itinerant setting. Hayes lives in Sebring, Florida, with his wife and three children. He welcomes questions and comments about this article at hayesc@highlands.k12. fl.us.

Measuring Success One (Sight) Syllable at a Time

By Christopher Hayes

"In order to succeed, we must first believe that we can."

~ Nikos Kazantzakis, author

What does success mean for deaf and hard of hearing students? Last fall as I began my twelfth year of teaching children with hearing loss, I reflected—as I always do—on how to evolve to better serve the students with whom I work. As an itinerant teacher in public schools, I work one on one with deaf and hard of hearing students, supporting them in their mainstream classrooms.

For a long time, I felt I was not seeing as much success as I should. However, a few years ago while trying to help a student with profound hearing loss, I had a conversation with a longtime speech therapist and I decided to re-evaluate my work—both my methods and my expectations. The student, who came from an economically and socially disadvantaged home where he experienced little language, was struggling to read and write. Further, the family moved often, causing his educational environment to change quickly and frequently, and he was often absent from school. The challenges were mounting, the resources disappearing, and the student appeared to be falling further and further behind. At such a young age, he was already being "written off" even by those who cared about him.

Bruce Torff, a professor of education at Hofstra University, explored how teacher beliefs can add to the problems of already disadvantaged students like the young boy I was teaching. Noted Torff:

A rigor gap emerges in which disadvantaged students are judged to require less rigorous curriculum than that afforded their more privileged peers Research shows that disadvantaged students could handle the rigorous curriculum if given the chance. (2011)

Photos courtesy of Christopher Hayes





Students with disabilities also experience what Torff calls a "rigor gap." Like their economically disadvantaged counterparts, these students experience lower expectations and less demand for academic success from their teachers.

My student and all students who experience both disabilities and social and economic disadvantages perhaps endure a "double rigor gap." A student's experience of dual disadvantages-for his or her disability and for the economic weakness of his or her family—may be additive. These students may experience even less rigorous expectations from their teachers than students who experience only one condition or the other. They may be left behind further and faster than students who only have disabilities or who are only economically disadvantaged. I was determined that would not be the case with my

student.

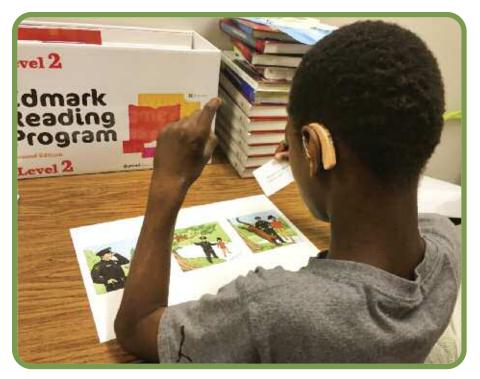
As often happens in itinerant settings, I had been tasked primarily with sign language instruction in an effort to make the general curriculum accessible for my student, but this was not enough. He was not acquiring the necessary skills. A change was required. I was familiar with the Edmark Reading Program (ERP), a program that develops sight reading skills for struggling students, for as long as I had been teaching. It was not widely used across the district, but the student's classroom teacher had just acquired a brand new complete program. I decided to try it.

I was encouraged by research that tracked readers' fluency while utilizing the ERP and showed improvement in student attitudes and engagement (Meeks, Martinez, & Pienta, 2014). Improved engagement can lead to gains in reading fluency, which can lead to gains in

Above: Working on word recognition with a student involves modeling, repetition, and identification of key vocabulary.

comprehension. Further Mayfield (2000), in her unpublished doctoral dissertation, recommended that "schools which teach reading using a purely phonetic approach should consider teaching sight words as a supplementary intervention for students with low phonemic awareness and phonological decoding skills." Mayfield noted that "[teaching sight reading supports] the special education principal of building on strengths while remediating weakness, and this principle should be considered in the teaching of at-risk students" (2000).

For my student who was not acquiring phonics skills, it would make sense that words be decoded another way or memorized.



Instruction was going to have to be prescriptive and repetitive. He would have to learn reading vocabulary by sight while we used sign language as a primary means of instruction.

The ERP is a two-level program for beginning readers. At the first level, it focuses on the 150 most-used words in childhood readers—the Dolch words and the word endings "-s" and "-ing." It begins with words like horse, car, yellow, and ball, and introduces the words in a fashion that allows children to use them immediately in sentences. The visual supports that are available help alleviate the challenges that children with hearing loss experience when learning to make sense of text. Students undertake extensive practice with these words. In addition to writing full sentences, they are repeatedly asked to recognize the words individually, in phrases, and in stories. Instead of emphasizing phonics, the program focuses on recognizing words by sight.

The most important component of the ERP is engaging the student in critical thinking and analysis of text to stimulate literary creativity. I began using the program in September 2012. I

modified it slightly, beginning with the post-test to see if my student was already familiar with any of the words, if he had used them in class. At first he was resistant. He would try to avoid tasks, sometimes resorting to behavior that could best be described as silly. Consistency was difficult to maintain. His home life remained chaotic, and sometimes my schedule fluctuated as well. At times we would have to change or even miss the sessions we had together. The support of school staff proved critical in keeping the student on track.

We continued working, and we would eventually use almost all aspects of the program, including activities of word recognition, phrase matching, picture matching, and story reading. We would use the takehome readers and activity sheets for homework, spelling practice, and comprehension. We would use the materials for independent reading, and we would use the literacy-integrated game board. As time went on and my student felt a measure of

Left: For the Phrase Match activity, students read sentences or short phrases and match them to a sequence of pictures.

success, his attitude improved. This year as he turned 12 and moved on to Level 2, I felt a complete shift in the way he approached our work together. As the year progressed, he remained on task; he seemed to enjoy our time together.

I attempted to incorporate some of the factors identified by Englert, Tarrant, and Marriage that are strongly associated with academic achievement of children with disabilities (as cited in Silva & Morgado, 2004). These factors include:

- allocating sufficient time to direct teaching of basic skills;
- conducting lessons in such a way that students maintain a high rate of task involvement;
- defining goals, objectives, and expected pupil outcomes;
- designing instruction so that students enjoy both the possibility of experiencing successful task resolution and greater levels of satisfaction and motivation; and
- using a variety of learning models that enable teachers to present problems as tasks to be solved and





encourage students to understand and explain their thinking.

We are continuing forward, and I feel pride in the progress and growth he has made. When he graduated to the second level of the program, we celebrated in royal fashion. I don't think that I have ever seen a bigger smile on his face.

The ERP has provided the consistency that my student needed. It has allowed him to develop his reading proficiency at his own pace, helping him to overcome the challenges that result from spotty attendance and lack of family support. Today I use aspects of the program with other students as well. Although it may not fit everyone, it has helped several



students and made a tremendous impact on at least one of them. My student has developed self-esteem and confidence, and this has enabled him to make Left: Picture Match activity.

headway in developing literacy.

At the same time, I have learned how profound were the words of a longtime speech therapist, who said that we must learn to celebrate our successes no matter how small. As teachers, we are tasked with assessing, developing, and attaining goals for our students, and the work resumes every year as a new plan is developed. Too often we don't understand that success is not a destination but a journey. We should not fail to celebrate the little

successes in each of our students along the way.

Success for Deaf and Hard of Hearing Students: The Ingredients

The following are important components in ensuring academic success for deaf and hard of hearing students:

- Early identification
- Amplification or implantation
- Early intervention
- Preschool a with focus on children who are deaf or hard of hearing
- Support—emotional, academic, and linguistic—at home
- Regular audiology appointments, mappings
- Proper school placement
- Proper Individualized Education Program or 504 plan goals
- Appropriate accommodations in school
- Appropriate transitional plan and employment goals
- Training/college preparation

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is a freelance interpreter in the Washington metropolitan area. She started learning sign language at Gallaudet from teachers Bob Seremeth, Eric Malzkuhn, and Mark Goldfarb. Encouraged by Deacon Willard Shorter and the Shiloh Baptist Church Silent Mission, Hunt started interpreting and working in the Deaf community. She worked at Gallaudet in various positions for 22 years. After earning her master's degree, she taught deaf and hard of hearing students in Washington, D.C., and Loudoun County, Virginia. She developed the ASL component of the foreign language curriculum for D.C. public schools and taught the only ASL classes in D.C.'s school system for seven years. She is one of the founding members of the D.C. chapter of the National Alliance of Black Interpreters, the proud parent of two daughters, and "Nana" to two grandchildren. Hunt welcomes questions and comments about this article at bunt1313@ hotmail.com.

With Strong Roots Children Soar: The Stories of Tyese and Michelle

By Barbara Hunt

"Understanding parents' perceptions ... is useful in planning for rehabilitation approaches and educational opportunities." (Matt, 2014)

One daughter has won a huge number of competitions with "Miss" in their titles, including Miss Deaf America, and is now completing her doctorate. Another daughter established Onyx, the first national black deaf theater company in New York City, and is an entrepreneur, teacher, director, producer, and actress who appeared in the acclaimed TV show "Girlfriends."

Tyese Wright and Michelle Banks have very different lives; however, both women are independent, confident, and successful, and both were identified as deaf by the age of 18 months. Perhaps their success is partly a result of their upbringing. Both had parents who learned sign language and who became intimately involved in their education. In fact, both had parents who put their own lives on the line for their children.

Linda and William Wright and Bernadette and James Banks wanted their children immersed in the best programs possible. Both sets of parents sent their daughters to the Laurent Clerc National Deaf Education Center—first to Kendall Demonstration Elementary School and then to the Model Secondary School for the Deaf—on the campus of Gallaudet University in Washington, D.C. Tyese and Michelle were students there when I met them. It was during the 1980s and 1990s, when I was an instructional aide and fledgling interpreter. Since that time, I have watched Tyese and Michelle grow up, graduate, and lead their adult lives. We have maintained contact as I pursue my new career as a freelance interpreter.

Photos courtesy of William Wright and Michelle Banks





HOTO CREDIT: ZHOU FANG

Susan Matt in her 2014 article about caregivers' perceptions of disabilities noted:

Understanding parents' perceptions of their children's disabilities and their understanding of their children's potential for education and future independence is useful in planning for rehabilitation approaches and educational opportunities.

Although Matt's research focused on Asian mothers in Ontario, Canada, her findings have implications for those who raise deaf and hard of hearing children in the United States, and perhaps the findings shed light on why the child-raising strategies of the Wright and Banks families proved so successful.

Neither family had a history of deafness. Neither knew anything about raising a child who is deaf or hard of hearing; both families had a lot to learn, and they began learning it quickly. While each family had a strong religious foundation, their beliefs did not assert that the causes of disabilities included witchcraft, the 'evil eye,' family or ancestral curse, bad deeds, or divine punishment (Matt, 2014). Both families regarded their children's deafness without rancor. Tyese's father

Above: Tyese Wright and Michelle Banks outside KDES in 2017.

remembers that his son Deamond, 5 years older than Tyese and in a Christian school, told his parents, "God gives special children to special parents."

These families accepted their children as blessings. In fact, Linda and William had originally been warned that Tyese's deafness could be the result of a number of debilitating diseases, and when they learned it was not, they "rejoiced that she just couldn't hear" (personal conversation, William Wright, January 15, 2017). They turned their attention to helping Tyese develop language, attaching printed names to everything in the house so that she could see the English words for every piece of furniture and object in her surroundings. Intuitively, they realized the importance of family communication and the whole family—parents, grandparents, and Deamond—signed up and attended classes to learn American Sign Language (ASL).

Bernadette and James Banks underwent some of the same experiences. They had been especially concerned about their daughter's health as Michelle's deafness was the result of an early childhood bout with meningitis, a



disease that so often leads to mental challenges and even death. When they realized that the only consequence would be deafness, they felt relief. Like the Wright family, the Banks family, grandparents included, began taking classes in ASL. Like the Wright family, they also considered immersion in language—taken for granted by hearing parents of hearing children but sometimes misunderstood by hearing parents of deaf children—to be paramount.

Matt (2014) noted that the cultural and ethnic traditions can affect whether the parents decide to invest resources towards education and training. If expectations are low, parents can't envision a future in which their child is independent and productive, and they can be influenced to ignore or neglect their child's needs. The adverse effects on their child can include low self-esteem, limited employment opportunities, and isolation. Both the Wright and the Banks families eschewed any traditions in American culture that would allow them to lower expectations for their children. High expectations and emphasis on learning, not necessarily

Left: Wright with her parents at MSSD's 1996 Homecoming.

talking, were the foundation of both parents' educational decisions.

Tyese's teachers knew that for her parents, Tyese did not have failure as an option—nothing less than A's and B's was expected on her report card.

Michelle's mother tried an oral program and Cued Speech but realized neither would work for Michelle. The Banks family became involved with a local advocacy group, Deafpride, founded by Ann Wilson, a hearing parent with a deaf son; Barbara Kannapell, a deaf

woman who taught at Gallaudet University and pioneered work in Deaf culture; and Eileen

Paul, a hearing woman who worked to educate the community about ASL and Deaf culture (personal conversation, Ann Wilson, January 15, 2017). Through Deafpride, they met successful adults who were deaf—working people, many of them professionals, who had families and owned their own homes. This exposure helped Michelle's parents realize that their daughter's life was rich in possibilities.

Both families visited the school regularly, not just for scheduled meetings but to be around other parents, school staff,

and their daughter's friends and to

interact as a community. Michelle's mother started attending Shiloh Baptist Church, which had a deaf ministry dating back to 1917. There, Michelle was around many of the deaf adults she met at Deafpride, but now deaf adults and deaf child interacted in a place of worship.

Faced with the opportunity to enroll Tyese in a mainstream program, the Wrights turned it down. Their decision was based on the belief that Tyese needed to get her education from deaf people and the Deaf community. She would learn everything she needed to know about "the hearing world" from interacting with her family and in her home community.

The validity of the Banks's decision, arrived at through their own investigation and intuition, is confirmed by research. In their

Helpful Links

FOR FAMILIES OF DEAF AND HARD OF HEARING CHILDREN AND THE PROFESSIONALS WHO WORK WITH THEM

- American Society for Deaf Children—www.deafchildren.org
- American Speech-Language-Hearing Association—www.asha.org
- Deaf Counseling Advocacy and Referral Agency—www.dcara.org
- Laurent Clerc National Deaf Education Center—http://clerccenter.gallaudet.edu
- Hands & Voices—www.handsandvoices.org
- National Association of the Deaf—www.nad.org
- National Science Foundation's Science of Learning Center on Visual Language and Visual Learning (VL2), Gallaudet University—
 http://vl2.gallaudet.edu

63

article on mainstreaming deaf students, Doyle and Dye (2002) pointed out that when deaf students have relationships with peers and adults who also have a hearing loss, the result is a healthy self-concept and sense of cultural identity. Sass-Lehrer's (2014) extensive report on the early lives of deaf and hard of hearing children affirms that families should seek support and guidance from deaf individuals who can serve as mentors, advisors, professionals, and parents to establish a foundation in language acquisition.

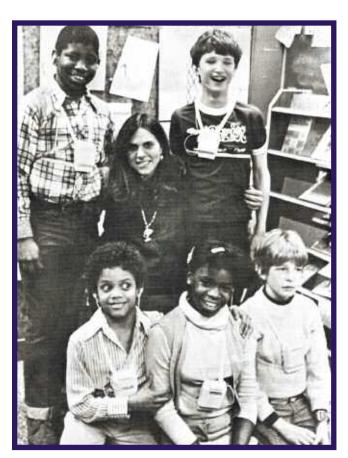
So critical is the exposure and connection of deaf and hard of hearing children to adults with hearing loss that the National Center for Hearing Assessment and Management (NCHAM) at Utah State University established the Deaf/Hard of Hearing Adult Involvement Learning Community

(www.infanthearing.org/dhhadultinvolvement).

High expectations
and emphasis on
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were the foundation
of both parents'
educational
decisions.

Today technology has made it possible for parents to access resources much more easily than in the early days when the Banks and Wright families investigated what it meant to be the parents of a deaf child. With a few taps at the keyboard, parents can link with organizations such as the American Society for Deaf Children, their state chapter of the National Association of the Deaf, or the Deaf Counseling Advocacy and Referral Agency. However, Tyese and Michelle's parents agree that the best advice they can give to other families of deaf and hard of hearing children is to be actively involved in their child's lives, to learn ASL if that is the most comfortable way for the child to communicate, to connect with the Deaf community, and to set high expectations.

Their advice works. I am a witness.



Above: Banks (front row, center) with her KDES class in 1979.

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Resource

Setting Language in Motion: Family Supports and Early Intervention for Babies Who Are Deaf or Hard of Hearing, a web-based resource from Gallaudet University's Laurent Clerc National Deaf Education Center and the Deaf and Hard of Hearing Program of Boston Children's Hospital. Information available at http://www.gallaudet.edu/clerc-center-sites/setting-language-in-motion.html.

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A Curriculum for ASL:

Empowering Students by Giving Them Ownership of Their Learning

By Melissa P. Herzig

There is a need for teachers to facilitate literacy in American Sign Language (ASL) and to put as much focus on developing students' ASL skills as they usually do on developing their English skills.

In response to this need, I have created a curriculum—Creating the Narrative Stories: The Development of the Students' ASL and English Literacy Skills—that teachers of deaf and hard of hearing students may find useful. The learning theories that support this curriculum and the practices it delineates empower and motivate students as they develop skills in both ASL and English, the two languages they will use for the rest of their lives.

Teachers want to enable students to develop skills to be lifetime learners. This means teaching them to read, write, communicate, and think critically. In some classrooms of deaf and hard of hearing students, this means more focus on English, less focus on ASL, and a distinct lack of focus on fostering students' development of ASL as an academic language. This is a mistake.

Support for an ASL Curriculum

Teaching deaf and hard of hearing children to read and write is important, but equally important is teaching those children to be independent, self-reliant, and successful. The overarching concern of wise and dedicated educators is empowering students to be

Photos by Zhou Fang and courtesy of Melissa P. Herzig Illustrations courtesy of Melissa P. Herzig





Above and left: In curriculum, students are encouraged to sign narratives from their personal experiences and to record the narratives on video.

responsible for their own learning, to learn how to seek information, and to know on what areas they need to work.

According to Wilbur (2000), one of the causes of deaf children's problems with reading and writing is that "students are so overtly concerned about the structure of individual sentences that their paragraphs are stilted." Wilbur suggests that students become overly cautious as they write, and this results in a lack of complexity and creativity in story structure. Teaching that focuses on generating correctly phrased sentences can result in learners that manage parts of speech and word order within individual sentences but overgeneralize the strategies they learn so those strategies become counterproductive.

Wilbur (2000) also suggests three reasons why the sentence learning practices do not work:

1. The students are not receiving enough language input at home and in the environment. This causes students to overgeneralize the rules of grammar, which is a major factor hindering full development of English skills in deaf children. Without sufficient language input and experience, students are not able to recognize mistakes.

- 2. Sentence structures taught in isolation are not conducive to effective writing. Wilbur and Nolen (1986b) found that students' comprehension was better when structures were presented in a meaningful context than when they were presented in isolated sentences.
- 3. Teachers, recognizing students cannot be taught every variation of English structure, choose what structures they will teach. Deaf students, without the easy access to information outside of the classroom that allows them to contextualize their experiences, sometimes only know a structure if it has been taught.

Most deaf students do not have sufficient ASL skills, partly because 90 percent of deaf children come from families who do not use ASL in the home. These children often come to school language deprived. They have little exposure to ASL, and they certainly do not have enough ASL skills to help them understand what they are learning in English. Acknowledges Wilbur (2000): "Limited [ASL] input is a major factor hindering full development of English skills in deaf children."

Skilled teachers know that students benefit from clear instruction in ASL and the differences between English and

Essential Terms in Learning Theory and Bilingual Literacy

Key Learning Terms	Definitions	Activities
Metacognition Awareness	Thinking about thinking, knowing what we know and what we do not know.	 Know-Want to Learn Chart: Share what students know about story structure. The students will pick a strategy that works for them to plan the story (e.g., draw picture, outline, web-form, talk about it). They will plan and monitor their learning process, identifying what they need to learn and develop using rubrics or a checklist to evaluate or assess self and others. They will be responsible for knowing what they understand or do not understand; they will know how to ask for help or find ways to understand the lesson better.
Metalinguistic Awareness	The ability to consciously focus attention on the rules of language and reflect on its nature, structure, and function.	 As the students go through the "writing" process (signing, revising, editing, final draft), they will get some ASL minilessons from the teacher or the ASL/bilingual specialist. After creating an ASL story, they can create an English version. They will get mini-lessons on how to write the ASL version in English from the teacher or the ASL/bilingual specialist.
Cooperative Learning	Students work in groups to complete tasks collectively with academic goals. The aim is to organize classroom activities into academic and social learning experiences.	The students will work cooperatively by watching their stories told in ASL on video or reading each other's papers and sharing suggestions for revisions.
Motivation	Intrinsic motivation: Driven by an inner desire to learn and to work on tasks. Work for self instead of for rewards. Extrinsic motivation: Driven by an external reward system. Work for ribbons and praise.	 The students will use rubrics as guidelines, and use their metacognitive skills to plan how they can reach their goals. They will choose the topic themselves for their narrative stories. They will also work with their peers through cooperative learning. The students will create final products for their digital library that others can view. Some ideas on how to showcase their work: Publish their work using e-books. Create VL2 Storybook apps through the VL2 Storybook Creator program. Create a video with captions added. Display their ASL literacy or bilingual literacy during story time for parents or other grade groups.

ASL throughout the day. It is not enough to provide ASL lessons on Fridays or in the mornings during warm-up exercises; it is not enough to teach ASL separately from English reading and writing. ASL must be taught in conjunction with other subjects throughout the hours that students are in school.

Supporting ASL Skills Through Narratives A Look at the Curriculum

In the Creating the Narrative Stories curriculum, deaf and hard of hearing students are encouraged to sign narratives from their personal experiences and to record the narratives on video. Teachers and students view the videos and analyze their use of ASL in class. Sometimes students pick one of their favorite narratives to share with classmates. As they watch themselves on video, they, their teachers, and their peers discuss ASL and edit their production. Teachers also provide individualized lessons about ASL. Depending on what skills students need to develop, teachers may focus on role shifting, eye gaze, or facial expressions.

After the individualized lesson, students work on revising and expanding their own stories, improving their use of ASL, and retelling the story. Once the story is recorded on video, students learn how to write the same story in English. It is at this point that they compare English and ASL syntax and learn how they differ. Teachers present several strategies that enable students to write in English the story they have told in ASL. The same principle can be applied to other subject areas or different types of presentations (e.g. history).

ASL/Writing Workshops Empowerment at the Center

In this curriculum,

ASL/writing workshops—in which students write in English while conducting academic discussion in ASL—are critical. These workshops may go a long way towards helping students learn how to transition between the two languages. The goals of developing literacy and empowering students through ASL/writing workshops are:

- to gain awareness of and develop skills in ASL,
- to help students distinguish between the structure of ASL and English,
- to promote student ownership of both languages by letting them express their personal experiences and prior

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knowledge in their personal narratives,

- to allow students to be responsible for their learning, and
- to improve students' academic language and social skills through cooperative learning.

Repeated ASL/writing workshops support the acquisition and development of ASL skills. Curricula in schools and programs for deaf and hard of hearing students should treat ASL the same way the general school curricula treats the English language—as an important academic subject of study. This does not mean ignoring English, of course, as students are also encouraged to develop their English skills through written work and reading remains critical.

Tips for Translation What Students Need to Know

Students need to know that one sign does not equate to one English word; students also need to understand the importance of classifiers, those signs that include components of adjectives, nouns, and verbs.

Here are some examples of English sentences that students might want to discuss:

- "The person is walking away." This sentence can be rendered with a single handshape, the 1-handshape that represents a person. Made with the extended pointer finger, the handshape is turned away from the body and moved outward, indicating that the person is facing the opposite direction and moving away from the person signing.
- "Dalmatians have many spots." While signers
 might render this sentence using the signs
 many and spots, they would communicate
 more effectively by indicating "many" by
 signing spots in a repeated way all over the
 body.
- "A child threw the hall." To sign the previous sentence, students must consider the size and shape of the hall (e.g., soccer hall, football, baseball). They add this information by indicating size and shape with classifiers and correct facial expression.

Once students understand these concepts, they are able to use them to translate their ASL narrative into English and write their rough draft. Their English draft, like their ASL draft, will be critiqued and edited by them, their classmates, and their teachers. Just as teachers took advantage of editing the ASL narrative to teach ASL, they now take advantage of editing the written narrative to provide lessons in English grammar.





By requiring students to talk about themselves and relate their personal stories, teachers bring out students' prior experiences and get them to connect learning in the classroom to the world outside. In addition, "personal narrative writing, with its ready supply of subject matter, is often an excellent starting point for reluctant writers" (Kemper, Nathan, & Sebranek, 1995).

Learning Theory and Bilingual Literacy Essential Terms

Several key terms are embedded in supporting the students' development of ASL and English literacy and individual empowerment. Understanding these terms may help not only with teaching but also with understanding the theory behind teaching:

1. Metacognitive awareness—This simply means the ability to plan and monitor learning, including what is understood and not understood, and what skills need to be developed. Metacognitively-aware students can question themselves and reflect on their prior knowledge while experiencing a lesson. These students are empowered and held accountable for their own learning.

A curriculum should encourage students to collaborate with peers or teachers, set up goals for themselves, develop a plan for how to acquire skills in ASL or English, and improve their communication and social skills. Students have diverse learning styles, so instruction in class cannot be "one size fits all." Strategies and approaches need to be individually tailored to allow each student to proceed at his or her own pace. "It is difficult for learners to become self-directed when learning is planned and monitored by someone else" (Blakey & Spence, 1990).

Once the students are aware of what learning strategies are effective for them, they become less dependent on teachers. The teachers need to be aware of what strategies or approaches the students prefer and "to present repertoires of strategic approaches by involving them as collaborators in developing the knowledge and processes needed to attain common goals" (Chamot & O'Malley, 1994).

2. Metalinguistic awareness—This means not only using language but understanding how to use language. Studies of hearing students found that they could not develop reading competence beyond fourth grade level when they did not have metalinguistic awareness in English (Nippold, 1998).



Below and right: Samples of student	My name: Date: ASL Story Editing Checklist Title: 1 1. I watched my story again to see if it made sense. 2 1 used classifiers to tell what animal looks like.
work.	used right facial expressions.
Tracking their Progress	howerd or signed my story to a friend to see if it made use. ned the story on videotape. ak my editing skills are
Checklist of ASL Story Ster Learned the rough idea of this story on videotape. Learned some new ASL storytelling skills Learned some new ASL storytelling skills Learned my friend for feedbacks and suggestion chart). Learned my story. (Attach ASL story edition of the land of th	e. Improving Pretty Good ond to improve The district of the following form. While editing we look at the safe the following of the following

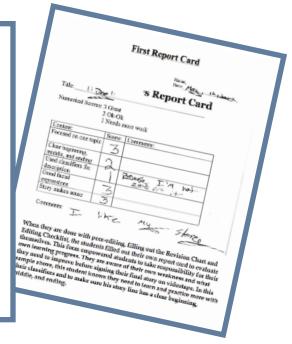
Research indicates that the problem that deaf students have in learning to read and write stems partly from their lack of understanding of how either ASL or English works (Wilbur, 2000). ASL needs to be understood and appreciated before the students can fully translate from ASL to English.

Students can be encouraged to develop their metalinguistic skills through the analysis of the ASL skills they use to create their narratives. First students brainstorm the stories with others, and then they develop their own narratives. The expression of ideas in their stories is emphasized. Editing focuses first on content.

3. Cooperative learning—Cooperative learning activities (Chamot & O'Malley, 1994) give students reason to use academic language for functional purpose. Students work cooperatively when they converse with peers, share and edit videos of their signed narratives, read and edit each other's papers, and offer comments and suggested revisions.

Using cooperative learning boosts students' social and academic language. Peer interaction is one of the important variables in developing language and communication skills, and research shows that peer communication helps develop students' motivation in learning. During peer conferencing, students develop the social skills necessary to work with each other.

In addition, cooperative learning fosters mutual rather than competitive learning (Chamot & O'Malley, 1994). It



gives each student a voice. The students work together in groups, give feedback, and interact with each other. The cooperative learning approach is excellent for making the classroom equitable by grouping students with various levels of skills together. During peer conferences when students give each other feedback, they become more analytical and their motivation to understand what they are learning increases. Students often enjoy chances to work with their peers. They know they are supported; a safe harbor is created in which the students can take risks in learning new skills (Brandt, 1995). Through cooperative learning, students have the chance to use their prior knowledge and apply their metacognitive skills to make what they have learned more meaningful.

- **4. Motivation**—In the ideal classroom, skilled teachers know how to use both *intrinsic* and *extrinsic* motivation:
 - Intrinsic. The teachers cannot teach and the students cannot learn if they are not motivated to do so. Intrinsic motivation comes from within. Few students like to show people what they cannot doand when they are asked to do what they cannot, they feel discouraged and overwhelmed. Students should be encouraged to show the knowledge they bring to the classroom through the experiences they share in their narratives. Teachers base lessons on what students already know, affirm that success is within the students' grasp, and use scaffolding to assist students in developing mastery. They also share clear expectations and use modeling to assist students in accomplishing tasks.
 - Extrinsic. Extrinsic motivation can mean not just providing students with rewards and punishments but also with an audience to recognize their work. With an audience, students have a purpose for creating stories, and the lessons they learn become meaningful. "Actual writing for a real audience and

real purpose is a vital element in helping students to understand that they have an important voice in their own learning processes" (Diaz, Moll, & Mehan, 1986). When students know their voices can be heard, they understand the power of language—and this motivates them to succeed.

"In depth examination of the work of highly creative people reveals a blend of both types of motivation" (Strong, Silver, & Robinson, 1995). The tasks students are learning need to be meaningful. They should not practice endlessly filling in the blanks on worksheets. Students need to know that what they are learning has some relevance to their lives and is worth learning.

Creating Stories

Students, with teacher guidance, can create their own stories through the National Science Foundation's Science of

Learning Center on Visual Language and Visual Learning's Storybook Creator app (*www.vl2storybookcreator.com*). Students can film, edit, draw, include photographs, and write their own scripts to make storybooks using this exciting new app. There

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is no programming experience required. Students get first-hand experience in how app development works and how stories are created. They deal with every aspect: plot, characters, signers, translating from ASL to English, modifying concepts, editing, working on art and graphics, and then putting it all together.

Empowering Students

The Creating the Narrative Stories curriculum empowers students, allowing them to take a greater role in their own education. The curriculum content allows development of both ASL and English literacy skills, which will benefit students throughout their lives. From choosing their topics and becoming experts in them, to helping others improve their work, to reflecting on the grading process, and sometimes even giving themselves grades, students are active participants and decision makers in their own learning ... and they are motivated to continue on their educational journey.

For more information about and to obtain the ASL/English workshop curriculum, contact Melissa Herzig at melissa.herzig@gallaudet. edu. For more information about the Storybook Creator app, contact Melissa Malzkuhn at melissa.malzkuhn@gallaudet.edu.

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COMMUNICATION AND LANGUAGE **EXPOSURE KEY TO SON'S SUCCESS:**

Reflects

A Mother

By Brenda Perrodin

My son Emmanuel wants to go to medical school. He is currently in his third year of college. Already he is amassing an impressive vita, studying for the Medical College Admission Test, working in clinical settings ... and hoping.

Emmanuel was born deaf with a hole in his heart. Both of these statistically unlikely characteristics have brought unexpected richness to his life, and perhaps the heart situation was the one that caused us the most grief. We have learned that the heart of every fetus has a small hole. This allows the blood from the mother, with its rich oxygen content, to enter the small growing body inside of her. At birth the hole (blood vessel) generally closes, but in his case this didn't happen. This resulted in a heart problem called, as Emmanuel reminds me, patent ductus arteriosus and required heart surgery to resolve it.

Emmanuel went to the hospital for the operation when he was 10 years old. He peppered Dr. Rachel St. John, whom we had known for several years, with questions. He wanted to know about his condition, and he wanted the details of the surgery. He asked so many questions that Dr. St. John told him he should become a doctor himself. He made up his mind right then. He would do it. He would become a doctor. Emmanuel has never deviated from this goal.

From the first days, Emmanuel was a top student. I had read to him when he was small, and he began to read on his own while in Kendall Demonstration Elementary School, on the campus of Gallaudet University in Washington, D.C. He read everything he could get his hands on. After his conversation with Dr. St. John, his reading accelerated and deepened, a pattern that continued when he entered the Model Secondary School for the Deaf (MSSD), also on the Gallaudet campus.

In both schools, Emmanuel won multiple awards. Some of the awards were cash, and we put the money away to cover college costs. At MSSD, he joined the Diversity Club to learn more about his African American identity and to show interest in his community. He became more outspoken about what he believed was right and the

Photos courtesy of Brenda Perrodin

Brenda Perrodin. MA, is a teacher in the Parent-Infant Program

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Shared Reading Project

welcomes questions and

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comments about this

gallaudet.edu.

at KDES. Perrodin

degree in familycentered early education

from Gallaudet

Center's Kendall Demonstration Elementary School



importance of appreciation for others and for diversity in our American society. His desire to participate in his community led to his work in the Student Body Government.

As a sophomore, Emmanuel joined MSSD's Academic Bowl team, which competed in the National Academic Bowl for Deaf and Hard of Hearing Students, and he and his team earned second place. During his junior year, he became the team captain. While the team lost in the regionals that year, Emmanuel remained captain. The following year, he led his school to victory in both the regional and the national competitions.

When Emmanuel graduated from high

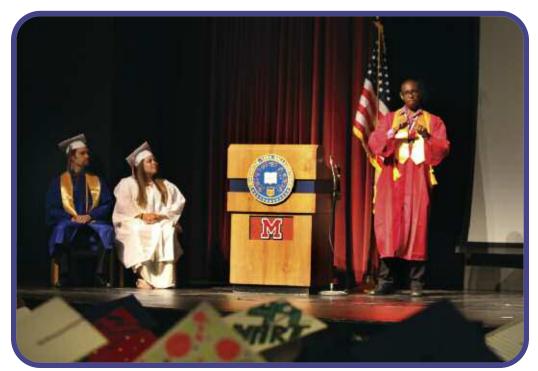
school, both Gallaudet

University and the Rochester Institute of Technology (RIT) courted him; both schools seemed ready with scholarships. Emmanuel said he chose RIT because it had the best premed program "with a record of success." He also wanted to live away from home for a while, and to experience a Deaf community that was different from the one in which he had grown up.

As an RIT student, Emmanuel competed in the National Association of the Deaf's College Bowl. With him on its team, RIT won for the third year in a row.

Clockwise from left:

Emmanuel (left) at KDES; Perrodin helps her son with schoolwork; Emmanuel and his Academic Bowl team with MSSD principal Mindi Failing; Emmanuel (holding Emma) and Perrodin check MSSD's Academic Bowl team's standing.



Parents Make the Critical Difference

Parents often marvel at Emmanuel's success and even ask me how "I" did it. Of course I did not do it; he did. However, this doesn't mean that parenting was irrelevant. In fact, as a person who works with young deaf and hard of hearing children and their parents every day, I know that parenting is critical. Parents often ask me what is most important—if there is a special key-to enabling their deaf and hard of hearing children to achieve academic success and self-fulfillment. I tell them that absolutely there is a special key: Language exposure. I was a single mom for a while, but I always made sure that we-Emmanuel, my daughter Emma, and I- talked with each other. I always had books in our home, and every week I would whisk Emmanuel and Emma to museums and other cultural events. We also credit success to the ease of communication that occurs when parents and children use the same language, in our case (American Sign Language). There were no communication barriers. Wants, needs, stories, and jokes were easily shared.

We were lucky, too. We met Dr. St. John—the doctor who encouraged Emmanuel to explore the medical field—when he was only 2 years old. My family was returning from a conference, talking on a plane as we headed back to our home, when a woman in the seat behind us interrupted us. It was Dr. St. John. She was trying to set up a clinic for deaf and hard of hearing toddlers at Georgetown University Hospital in response to the Early Hearing Detection and Intervention legislation that mandates hearing testing of every newborn in the United States. She signed beautifully, and she said that she needed some help. Would we be interested in advising her? Of course! We worked with her for several years. This contact proved enriching both for her and for me and my son. She has since moved to Texas, but we keep in touch.

The summer before high school, Emmanuel had his first clinical experience. I have a good friend, Julia Engram, who helped him find a job working with a doctor who treats the eye, foot, hand, and gallbladder at the SurgCenter of Southern Maryland in Clinton. Soon after that, Emmanuel **Left:** Salutatorian for MSSD's Class of 2014, Emmanuel (right) addresses his graduating classmates and the audience.

sought out placements on his own. When he learned that my sister (his Aunt Mary) had a fiancé who had a sister who was a doctor, he made the contact and asked about shadowing her at work throughout his winter break.

As a third-year college student, Emmanuel is so busy. This is his second semester working as a teaching assistant of organic chemistry. He works as part of a group of deaf teaching assistants who give weekly workshops and review

sessions for deaf and hard of hearing students. He has two jobs on campus, serving as an American Sign Language consultant for interpreters and other access service providers in the Department of Access Services in RIT/National Technical Institute for the Deaf (NTID), and as student researcher in the NTID Center on Cognition and Language's Deaf Health Lab. He joined the RIT Honors Program last semester.

Emmanuel also worked as a student research assistant in the Department of Biochemistry and Cellular and Molecular Biology at the University of Tennessee. That position culminated in a presentation at the department's End-of-Summer Symposium. The topic of this presentation? Trust me ... my son's work is so specialized that most people don't even try to understand it, but his presentation involved the effects of a virus that causes molting and discoloration of tobacco plants on other plants. Titled "Integrative Effects of the Tobacco Mosaic Virus on ISE2-Overexpressed Plants," it was the culmination of seven weeks of research in the lab under the supervision of doctoral candidates and post-doctoral fellows.

Emma is interested in more "handson" experiences than her brother and she is hard of hearing, so we are following a different plan for her education. Each child is different, and the differences are to be treasured. Of course both children have our support—as I had my parents' support.

We are part of a large African American family that can trace its deaf ancestors back six generations. I am deaf, as is my mom, six of my seven sisters and brothers, and several extended family members. We were raised in Grand Coteau, a small town near Lafayette, Louisiana, known for its Cajun heritage. My mother grew up using French within her family and is trilingual in French, English, and American Sign Language. She went to school during the days of segregation, and she was among the first African American students to integrate into the Louisiana School for the Deaf.

... for both

Emmanuel and Emma
communication
and language
exposure throughout
their early years built
the foundation for
what we have today.

My mother never went to college, but she instilled in her children the belief that we could achieve if we worked hard. When I wanted to go away to study at Gallaudet University, she encouraged me. Gallaudet was an eye opener. There is no experience like it. I wanted to work with young children and when I graduated, and I stayed on campus to get my master's degree in early childhood education. I've taught in the Parent-Infant Program—with the youngest deaf and hard of hearing children who are just beginning their lives and learning—at KDES for 20 years.

I'm so proud of both of my children. They are at different stages in their lives and excel in different areas, but for both Emmanuel and Emma communication and language exposure throughout their early years built the foundation for what we have today. At 19, busy with college and preparing for medical school, Emmanuel texts me daily and I text him, too. Emma is moving ahead and making me proud. Language exposure and communication remain key to my children's success.





David Dolman.

PhD, is professor and coordinator of the Education of the Deaf and Hard of Hearing Program at Barton College in Wilson, North Carolina.

Advancing English Literacy by Improving ASL Skills: A Residential School's Quest

By David Dolman and Laurie Rook

Walking down the hall at the Eastern North Carolina School for the Deaf (ENCSD) on a crisp October morning, a casual observer would have noticed similar activities in several classrooms. In one class, Nicole Williamson was teaching first graders the difference between *jumping in* and *jumping up and down* by illustrating the meanings through physical demonstration, pictures from an iPad, and the use of American Sign Language (ASL). Having written a few choices on chart paper of what could be jumped into—leaf piles, water, mud, and a box—and who could do the jumping—the child, a dad, a sister, Elijah—Williamson guided the children through the creation of English sentences using color-coding to distinguish nouns (marked in green) from verbs (marked in red):

"Who jumped?" asked Williamson, pointing to the choices on the chart.

"Elijah jumped," one child noted.

"Good," responded Williamson, smiling. "And is *Elijah* a noun or a verb?"

Photos courtesy of Laurie Rook





North Carolina. The authors welcome questions and comments about this article at

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When the children correctly noted that *Elijah* was a noun, Williamson pointed again to the chart and asked, "And what did Elijah jump into? Was it the leaves, some water, mud, or a box?" After this demonstration and brief questioning, students created their own sentences as Williamson and a teacher assistant circulated among them and offered guidance as needed.

Meanwhile upstairs teacher Michelle Myers and her middle schoolers were discussing the meaning of the idiomatic phrase at all when it is used in sentences such as I have no money at all or I did not eat at all. Meyers pointed out that none at all could be indicated by using both hands to form a zerohandshape that moved forward in the sign for none. A signer could show the same emphasis as the speaker by signing, "I have no money. None." or "I did not eat. None."

Across the hall, teacher Kara Cooper also helped students work with English and ASL by

Above: Using the online component to Fairview Learning, elementary teacher Chelsea Cashion teaches the Bridge Phrase went away.

illustrating the usage of the verb went, as in I went to eat breakfast, and comparing it with the idiomatic usage of went when it combines with on, as in I went on eating breakfast. In each case, teachers followed up by assisting students as they wrote original sentences and drew quick sketches from the sentences they had created.

Williamson, Myers, Cooper, and other ENCSD teachers were using activities that are part of Fairview Learning, a reading program for developing literacy in English and ASL designed specifically for deaf and hard of hearing children. The program had been introduced months earlier and was now being implemented in kindergarten through high school.





Left: Kindergarten teacher Nicole Williamson teaches a guided reading lesson in a one-on-one situation.

Fairview Learning was developed at the Mississippi School for the Deaf, where the student population is similar to the students of ENCSD. The Mississippi students had poor reading skills (Schimmel, Edwards, & Prickett, 1999), and end-of-year standardized test results indicated that the reading skills of ENCSD also lagged behind those of their hearing peers. In addition, ENCSD has a high minority population, with increasing numbers of children whose parents do not speak English at home. Considering the similarity in the two populations, Dolman felt that the new program was worth investigating. He sent Rook websites and articles, and the Barton College professor and ENCSD teacher began discussing

the idea of exploring use of the program at ENCSD.

At about the same time, Dolman was approached by an administrator who informed him that he, along with two other Barton professors, would be given a stipend and course release time to pursue a project in an area of interest over a three-year period. The offer stipulated only that the project relate to the professor's own discipline and produce something tangible, such as a publication, creative work, performance, or new curriculum. As Dolman thought about what form this project might take, he recalled his discussions with Rook, who had been researching on her own and was becoming increasingly interested in implementing the Fairview Learning program at ENCSD. After mulling it over and clearing the idea with his administration, Dolman told Rook about the possible support of Barton College—and she brought the idea to her school director, who gave the okay to explore it further.

In October 2014, a representative of Fairview Learning, responding to an inquiry from Rook and communicating through Skype, explained the program to a group of ENCSD teachers and administrators. The teachers responded with enthusiasm and funds were procured from a variety of sources, including Barton College. This money allowed purchase of materials and a two-day training by a Fairview Learning representative, an event attended by all teachers, teacher assistants, and dormitory personnel.

Reading, Thinking, and Adopting a Program

The decision to adopt the Fairview Learning program at ENCSD can be traced to a brief conversation between Laurie Rook, ENCSD lead teacher and reading specialist, and Dave Dolman, coordinator of the Education of the Deaf and Hard of Hearing Program at nearby Barton College. Through the years, Dolman and Rook, both authors of this article, had often talked about the dilemma plaguing deaf education—that so many bright students encounter profound difficulty in learning to read and write. Dolman, catching up on his own reading in the summer of 2014, came across a brief mention of Fairview Learning in Literacy Instruction for Students Who Are Deaf and Hard of Hearing (Easterbrooks & Beal-Alvarez, 2013). While Easterbrooks and Beal-Alvarez wrote that there was only one published empirical study of the popular Fairview Learning materials (Ausbrooks-Rusher, Schimmel, & Edwards, 2012), they also noted:

[The Fairview Learning] materials address the language needs of the deaf child, and better language skills lead to better reading outcomes, and so the Transitive Property allows speculation that these materials cause positive reading outcomes. (Easterbrooks & Beal-Alvarez, 2013)

What particularly piqued Dolman's interest was that

②

Fairview Learning

A Look at a Program

The Fairview Learning program consists of five components (Schimmel & Edwards, 2003). Two of the components—phonemic awareness and literature-based instruction with an emphasis on comprehension—are found in almost all reading programs. The remaining three components, however, are unique. These include:

1. Memorization of 220 common words. These words, the Dolch words—named after Edward Dolch, who identified a list of the most frequently occurring words that need to be recognized to achieve reading fluency—would be memorized so that the children recognized them on sight. The words include some of the most basic vocabulary in English but exclude nouns. Examples of words are: run, the, eat, any, every, and made. Seemingly straightforward, these words can present a problem for users of ASL because a single English word can

have a variety of different meanings and require different ASL translations. For example, *made* can mean *earned* (e.g., she *made money*), *caused* (e.g., he *made someone happy*), and *forced* (e.g., she *made me* do it). In the Fairview Learning program, deaf and hard

Above: Middle school teacher Dianne Wright reviews single-meaning vocabulary words with a student prior to a reading lesson.

The teacher
reaction, however,
was quite clear: all
14 ENCSD teachers
who implemented
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believed that it
benefitted the

students.

of hearing children learn 510 ASL translations for 220 Dolch words.

- 2. Memorization of 265 idiomatic phrases. Called "bridge phrases" by program developers, these are idioms in which words change their meaning; they cannot be translated sign for sign. For example, look up is a bridge phrase that can mean look up to the sky, or to look up material in a dictionary, or life began to look up. As they read, however, deaf and hard of hearing children often sign the phrase look up by translating each word separately. Bridging teaches them to understand the various meanings of English phrases and how to translate them correctly. There are nearly 600 sign translations for the 265 bridge phrases that the children memorize.
- 3. Translation from signs to print. In this part of the program, children work with expressing themselves in English and ASL. They begin by telling stories from their own lives in sign language. Teachers rework these

stories and help students tell the stories in correct ASL. After much practice, students retell their stories on video, and teachers assist them in translating the stories into English and writing them correctly.

After One Year

Teachers Show Support

As this article is being written, teachers have used Fairview Learning at ENCSD for just over a year, and the trainer continues to provide assistance through periodic Skype sessions. Three aspects of the program—the Dolch word lists, bridging, and literature-based instruction—were integrated into ENCSD's curriculum during the last school year with greater intensity, as might be expected, in the younger grades. Additional training was provided at the beginning of the 2016-2017 school year to deepen teachers' understanding of how to incorporate phonemic awareness activities, including making the 21 long and short vowel patterns and the 21 consonants visually accessible through handshapes—an aspect of the program receiving more emphasis in the second year of implementation than it did in the first.

Another area receiving greater emphasis is that of incorporating children's telling of stories in ASL and then translating those stories into written English. During the first year, middle school teachers attempted to incorporate the writing into a daily reading block, which led to frustration and meant that writing received short shrift. This year, separate reading and writing blocks were added to the curriculum,



allowing more time for focus on working with ASL and written English.

Further, as part of the program each child's sign language skills are assessed in October and March by two evaluators. This has resulted in a careful and systematic look at each child's development of ASL, including his or her use of vocabulary, directionality, classifiers, space, body shift, facial expression, and eye gaze. As children continue to work on ASL and written English, it is expected that production of both languages will improve.

Evaluation showed that students' understanding of multiple meanings of words, measured by their knowledge of Dolch adapted word lists and their facility with bridge phrases, increased considerably during the first year of program implementation. Students also showed improvement in their writing ability as measured by the Kendall Writing Levels (French, 1999). Still, it is difficult to ascertain how much of this improvement was due to the use of Fairview Learning and how much would have occurred anyway either as a result of general maturation or other classroom activities.

The teacher reaction, however, was quite clear: all 14 ENCSD teachers who implemented the program supported it and believed that it benefitted the students. These teachers, who teach about 70 percent of the school population, were surveyed anonymously and found three broad areas of improvement. First, they found that students' English vocabulary and writing skills were improving. This was especially true in instances where words and phrases were directly taught through the Fairview Learning program. Second, several teachers felt that as a result of this improved understanding, reading comprehension was increasing as well.

One teacher noted how exciting it was to be able to point out a bridge phrase or a multi-meaning word encountered outside of the reading classroom. It seemed that the program helped students' comprehension not just in reading class but in math, social studies, science, and other subjects. Teachers noted that students improved their skills in both English and ASL. Also, some teachers noted that students seemed to respond positively to the program and thus were more motivated to learn.

When asked whether they thought ENCSD should continue with the Fairview Learning program, the result was again unanimous: 100 percent of the teachers (14 out of 14) said yes. Uniformly positive responses to new programs are rare, especially when one considers that the teachers had been asked to develop a new set of practices that required sitting through hours of training, lots of uncertainty in the first few months of implementation, and uncertain objective results. Several respondents noted that Fairview Learning had not particularly changed their teaching philosophy since ENCSD has supported the use of ASL and a bilingual philosophy for many years. Instead, it helped teachers align that philosophy with daily classroom practices, reminding them of the need to help ASL-using students decipher the meaning of the English words and

phrases they encounter on a page.

One teacher stated: "Fairview reminds me that the English sentence structure or vocabulary that I use to teach may be perceived differently or not at all [by my students]."

Another teacher said: "Keeping Fairview in mind helps me focus on how and why students are confused while reading and helps the students become more aware of multi-meaning words, bridge phrases, and ASL concepts."

Finally, one teacher offered an overall perspective, noting: "As with any program, it will take longitudinal data to really evaluate if it is making an impact in the skill sets of the children. There are no magic programs that will instantly change the reading comprehension of a child but continued, structured approaches should show increased growth in the future."

These sober words reflect what those with experience in deaf education understand: The linguistic obstacles that many children at ENCSD face in learning to read are enormous. The teacher is right ... no magic potion, pill, or program is going to automatically increase reading and writing skills. However, the Fairview Learning program holds promise for student success. We are excited to see how the program develops, and we are enthusiastic about what the future will bring for the students at ENCSD.

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CLERC CENTER NEWS

K-12 ASL Content Standards Update

The Clerc Center is committed to the development and dissemination of researchbased, rigorous K-12 American Sign Language (ASL) Content Standards based on current research combining the latest understanding of first language acquisition in ASL and current principles in standards-based education. These content standards will describe the breadth, depth, and range of complexity of language skills that students who are deaf or hard of hearing need in order to meet the academic ASL expectations of their grade. The content standards and benchmarks will guide teachers in planning instruction by comparing student skills against these milestones and will be aligned with the Common Core State Standards.

Following a competitive proposal process, we engaged a team of academic and linguistic professionals from around the country to develop an initial draft of the content standards and a related research summary. The Clerc Center has validated the research synthesis developed by the ASL Standards Contract Team. The research synthesis consisted of a collection of current research on ASL development and acquisition from kindergarten to twelfth grade as well as the proposed framework of standards strands and benchmarks of what ASL skills students should learn by grades three, five, eight, and twelve. This research synthesis served as the foundation for the next phase of the development process.

Now in the second phase of development, the Clerc Center is partnering with the California School for the Deaf, Fremont (CSD) to develop the content standards and benchmarks while the Clerc Center oversees the development of the rationale; the feedback, review, and validation processes; and the final design and dissemination of the content standards. Feedback collected during the open comment process in the spring of 2017 will be used to help share the final design of the content standards as a web-based product.

The Clerc Center plans to launch the content standards in January 2018.

Gallaudet Alumna Ann Tennis Creates Endowment Fund to Support the Clerc Center

Gallaudet graduate Ann Tennis has pledged \$500,000 towards the establishment of an endowment fund—the C. Ann Tennis, G-'43, Family Education Fund—to honor her deaf aunt and uncle for introducing her to the field of deaf education. This fund will provide the Clerc Center with support for family and community engagement through various strategies such as educational workshops, training, and providing resources and materials.

"I was convinced over the years that it is best that children born deaf should start with sign language right away,"



ZHEE CHATMON

says Tennis. "I am very much in favor of what they are trying to do. It is a worthwhile cause to support." Tennis's steadfast support is the result of the formative influence her aunt and uncle, Ellen Pearson Stewart and Roy J. Stewart, had on her.

Roy is remembered for his preservation of films made in sign language during the turn of the 20th century in response to the growing

concern of oralism by deaf leaders. He assumed the role of chair of the Motion Picture Committee of the National Association of the Deaf; it would be his passion for more than half a century. "He believed in sign," says Tennis, "and he believed in preserving movies made in sign."

Ellen was the one who taught Tennis signs and encouraged her to go into deaf education. When Tennis decided to attend Gallaudet College, it was Ellen who met her at Union Station in Washington, D.C., and brought her to Kendall Green. Ellen also invited her to attend the Convention of American

Instructors of the Deaf at the Missouri School for the Deaf in Fulton in June 1941. Tennis saw how deaf children were taught, met teachers of the deaf who were themselves deaf, and immersed herself in a signing environment. She decided to become a teacher of the deaf, graduating from Gallaudet with a master's degree in deaf education in 1943. Tennis went on to teach deaf students for 31 years, retiring in 1974.

Since then, Tennis has stayed in touch with the Deaf

communities in California and at Gallaudet. The fund she has established will go towards enhancing resources and opportunities for families with deaf or hard of hearing children to engage in communication throughout the household. Her aunt and uncle gifted her with heritage, family support, and communication, and she intends for her endowment to allow other families to have the same.



CLERC CENTER NEWS

MSSD Unveils New Residence Hall with DeafSpace Design Principles



The Model Secondary School for the Deaf (MSSD) celebrated its new residence hall with an open house event on January 26, 2017. MSSD student leaders, cheerleaders, and alumni celebrated this newest DeafSpace-friendly addition to its campus along with representatives from Gallaudet University, the design and construction firms, and guests.

During the opening program, Gallaudet president Roberta J. Cordano remarked to the MSSD students in the audience, "I live in the oldest house on the campus, built in 1869, and now you live in the newest. I hope you will make this place your home, where you will thrive." Cordano acknowledged and thanked the University Board of Trustees, the U.S. Department of Education, retired U.S. Senator Tom Harkin, and past Gallaudet president Dr. T. Alan Hurwitz for their support in securing funding for the building.

Clerc Center vice president Ronald Stern commended on how the new building incorporates the principles of
DeafSpace, with clear
site lines, bright and
open spaces with
natural light, and
generous windows and
skylights everywhere.
"I am thrilled with
how the students were
involved in the
design," he said.

Input from staff and students inspired the unique design comprising two "L"-

shaped wings that create an outdoor campus green north of the main MSSD school building. The design features wide corridors, entrances, and open spaces that accommodate people in signed conversation as they walk through the building.

The three-story, 68,500 square foot building provides 160 student beds on the upper two levels and 10 private staff apartments on the ground level.

MSSD Student Body Government president Ryan Horner remarked, "We're thrilled with all the windows and natural light, and the Wi-Fi reception is great!" Horner also explained that the new environment reinvigorated academic pursuits, making collaborating on projects and conducting study groups much more

organic.

The two wings, one for boys and one for girls, feature a long list of amenities such as study rooms, TV lounges, washing machines, and an outdoor terrace overlooking views of Washington, D.C. The ground floor features a spacious common room, a kitchen area, and gaming space that all face the central campus green and create the social heart of the campus. The building also features vlog and conference room spaces that use a shade of blue to provide a clear communication backdrop for viewing sign language.

MSSD principal Mindi Failing and director of Student Life Deb Skjeveland also shared their thoughts during the ceremony. "I clearly remember developing the new dorm vision in December 2010. The new dorm will give our students enhanced opportunities for learning and development," said Failing. Skjeveland added, "I am amazed at the positive effect the new dorm has already had on our students; it is truly a home away from home."



86

Seeking Submissions for the 2018 Issue of Odyssey

THEME: The Future of Deaf Education: Practices Impacting Positive Change

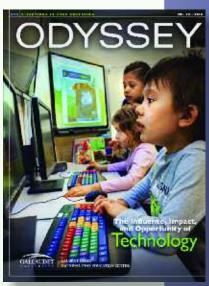
This year we celebrated 200 years of deaf education in the United States. We've made many significant advances over these years in understanding what is essential to effectively educating students who are deaf or hard of hearing and implementing practices that reflect what we have learned along the way. At the same time, the availability of access to high-quality education is inconsistent for the students that we serve so there is still work to be done.

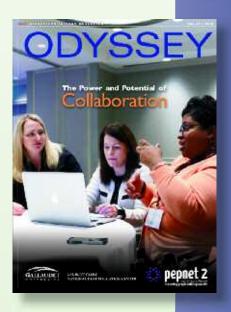
In this issue, we will turn from the past and look to the present and the future. What can we collectively do as a field to ensure professionals and families are equipped with current evidence and strategies to impact positive outcomes for each and every child who is deaf or hard of hearing?

The 2018 issue of *Odyssey* will focus on sharing innovative practices in the following areas critical to impacting positive change at the foundational level of deaf education:

- Effective practices in teacher preparation programs, certificate programs, and ongoing professional development activities—What are professional training programs doing to ensure new generations of professionals are prepared with what they need to know? Also, what creative ideas are schools incorporating to keep their existing teachers and staff members updated and current in their practices?
- Building local and national "communities of practice" for professionals and families—We have increasing knowledge and experience in "silos" but not enough opportunity to learn from each other. What is happening at the local and national levels to pull together professionals and families to learn from each other and share resources?
- Strategies reflecting changes made to teaching or other professional practices based on the shifting population of students being served—The students we are presently serving have differing characteristics from the students served 200 years ago. We now have significant numbers of students from diverse cultures and using many languages, students with increased access to sound through cochlear implants and other technology, and increasing numbers of students with secondary disabilities. What changes have you made to your practices that reflect the diverse characteristics of the students you serve? You may want to include unique strategies and approaches related to literacy development; science, technology, engineering, the arts, and mathematics (STEAM) programming; and language approaches.

Please e-mail your ideas to *Odyssey@gallaudet.edu*. We will begin accepting submissions on June 1, 2017, and continue until October 6, 2017, or until the magazine reaches capacity. Contact us via e-mail at any time with questions or to discuss your ideas.





THE BACK PAGE



High Expectations and Support a Catalyst for Student Success

By Roberta J. Cordano

Roberta J. Cordano, JD,

became the 11th president of Gallaudet University on January 1, 2016. Prior to Gallaudet, Cordano was the vice president of programs for the Amherst H. Wilder Foundation in St. Paul, Minnesota. Cordano has held several leadership roles in different sectors, including health care, higher education, and government. She is a founding member of the Metro Deaf School, a pre-kindergarten through eighth grade bilingual-bicultural charter school for deaf and hard of hearing children in St. Paul, and a founding board member of the Minnesota North Star Academy, a bilingualbicultural charter high school for deaf and hard of hearing students.

As educators, it is easy to get lost in the nuts and bolts of education—reading scores, math capabilities, and whether students are progressing. However, as this issue of *Odyssey* magazine so beautifully illustrates, to educate is to support the whole child. Student success must not only look at test scores and literacy but also at whether children are growing, thriving, and becoming lifelong learners.

For deaf, hard of hearing, and deafblind children, language access is critical in order to support the whole child, as language impacts every aspect of life. Bilingual education creates an environment in which children can receive this access from the beginning because it fosters a climate of "and" not "or." Deaf education for generations frequently revolved around "or," as in "deaf children should learn English or American Sign Language, but not both." Education that focuses on American Sign Language and

English gives deaf and hard of hearing children every opportunity for success. Deaf culture cherished and hearing world navigated. High expectations and extra classroom support.

The use of "and" in our approach to deaf and hard of hearing children is a catalyst for their success in the future. If they know opportunities await instead of limitations, they will push themselves to succeed. This goes hand in hand with high expectations, which

are absolutely vital to student success. If children know they are expected and encouraged to do anything they want as adults, they will. If they think that their educators do not believe in them, that their future is full of barriers and not building blocks, they will be hampered in their growth, jeopardizing their future. High expectations are critical.

When you look at these children, whether

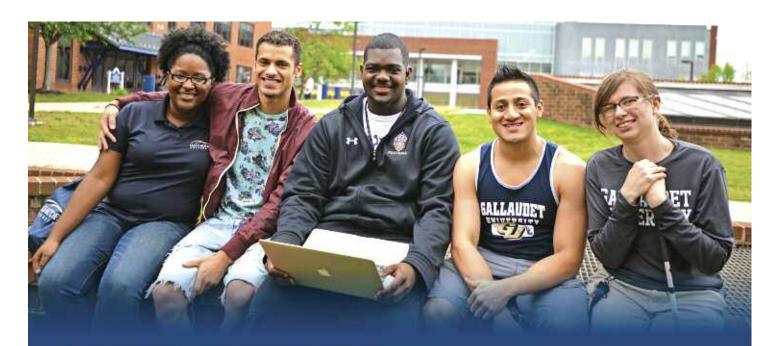
your role be that of a parent, teacher, aide, administrator, or other supporter, remember to keep your expectations high. Often we can get so caught up with focusing on the here and now of tests and tactics that we forget the critical fact that deaf education, as with all education, is not about teaching children but rather shaping adults. Student success equates to adult success, and that should be the ultimate goal of all education.

I want to thank all those reading this for your support of deaf and hard of hearing children. I know you tirelessly work to bring

them success. I have seen the immense dedication by parents, teachers, administrators, and others to supporting the success of our deaf and hard of hearing children. As we know, it takes a village to raise a child. Thank you, villagers, for all you do. I know that our deaf and hard of hearing children will flourish as we provide them with an environment that recognizes their unique abilities and strengths, and pushes them to strive, thrive, and succeed.

Student success
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at test scores and
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and becoming
lifelong learners.

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Take our online survey if you are a:

- Parent/caregiver
- Educator
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What do you think are significant barriers facing deaf and hard of hearing students from birth through high school in the United States?

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