NEW DIRECTIONS IN DEAF EDUCATION

VOL. 22 • 2021-2022

ODYSSEY

Transformative Practices in Instruction, Collaboration, and Administration

GALLAUDET UNIVERSITY

LAURENT CLERC NATIONAL DEAF EDUCATION CENTER

ODYSSEY

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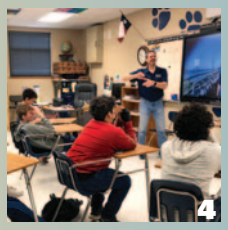
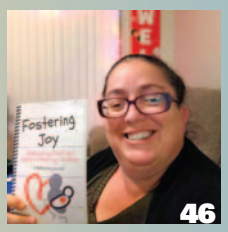
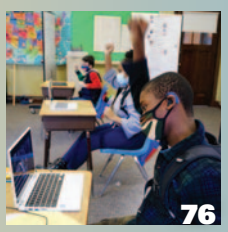
About the cover: Combining hard skills, such as those with STEAM and problem solving, with soft skills, such as collaboration and communication, in the classroom helps to transform the learning experiences of students, preparing them for the future.

We would like to thank all of our student, teacher, and staff models from the Clerc Center, as well as Robin Williams Evans, Wayne Evans, Wyatt Evans, Jean Paul Attie, and Jaleesa Rose, for their assistance in illustrating this Odyssey *issue.*

FEATURES







CLERC CENTER NEWS

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Transforming Educational Practices
FOR THE STUDENT OF TOMORROW

There have been profound changes taking place in education across the United States over the last several years—through innovative approaches involving interpersonal and technical skills, through leveraging strategies and committing to new practices aimed at dismantling systemic racism and other inequities in our schools and educational programs, and through adopting new practices that address the numerous demands for academic success and social-emotional well-being that have arisen. Currently, there is a huge opportunity for educational and community leaders to accelerate the work to implement these transformative practices in education, collaboration, and administration.


Marianne Belsky


Nicole Sutliffe

With the shift away from in-person learning during the COVID-19 pandemic and increasing equity in education toward greater equity for deaf and hard of hearing students, families, teachers, staff, and professionals, many of us were compelled to be resourceful in different ways, developing new interpersonal and technological skills in seeking to deliver high-quality educational experiences in alternative formats as well as promote a growing sense of awareness of how we are all connected to one another.

In this issue of *Odyssey,* professional and parent authors share stories and experiences on a range of topics. For example, Amy Szarkowski and Candace Lindow-Davies describe Fostering Joy, a movement created through a family/professional effort to celebrate the joy of raising deaf and hard of hearing children. Amanda Howerton-Fox, Michelle Veyvoda, Hannah Park, and Julia Silvestri write about teaching literacy to deaf and hard of hearing children through movement. Lauren Trainor writes about the challenges of face masks during the pandemic and how they impacted accessibility in the classroom and community. Cat Valcourt-Pearce discusses her dual role as a professional working remotely and a parent remote schooling four children (deaf, deafdisabled, and OHKODA) with very different needs. Millicent Musyoka, Hadeel Alawad, and Sulaiman Adeoye explain how utilizing more diverse and inclusive literature can help to address and dismantle inequities based on disability, race, or ethnicity. Sarah Brandt and Rachel Benjamin describe how through shifting our mindset and integrating academic and functional learning, we can transform our practices and create meaningful learning. Sarah Wainscott and Bill Wainscott describe how they took middle school students on a virtual Texas Deaf Ed Road Trip. Also included are articles about shared leadership as a way of transforming deaf education, using music to transform classes for students with multiple disabilities, teaching to foster self-determination and learning, strategies to combat teacher burnout, teaching and using ASL graphemes to develop preschool deaf and hard of hearing students' English literacy skills, and building a deaf school online.

Next year's *Odyssey* issue will focus on access and equity in deaf education. Check out page 87 for more information. We hope you will share your stories with us at *Odyssey@gallaudet.edu.*

—**Marianne Belsky** and **Nicole Sutliffe**
Chief Academic Officer/Chief Administrative Officer
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The Great Texas Deaf Ed Road Trip:

Middle Schoolers Drive Development of Virtual Learning

By Sarah Wainscott and William Wainscott

During a morning lesson with seventh graders, Bill Wainscott, teacher and co-author of this article, has an outline of Texas, segmented into regions, posted on his SMART Board®. He asks students for any cities they can name in our state. Quickly, they list their hometown of Denton and nearby Dallas, though none of the six students can connect either city to the North Texas region in which they live. When pressed to name other cities in Texas, one student fingerspells "A-t-l-a-n-t-a" and another says, "Oklahoma." Wainscott reviews the differences between cities and states, noting that Atlanta—and the Braves baseball team!—is actually in the state of Georgia. He reminds the students of a fourth-grade field trip to Fort Worth and locates it on the map, showing its proximity to our school. When he asks how long they think it would take to drive the 30 miles to Fort Worth, student estimates range from 10 minutes to three hours.

Like too many deaf and hard of hearing students, Bill's students lack simple state geography concepts. They have little sense of the historical, economic, and cultural influences that shape their state, and they are missing background knowledge that is needed to engage in grade-level curriculum concepts. One of the solutions: A Texas Deaf Ed Road Trip.

A Classroom Journey

Of course, it is not practical to pack up a van with deaf and hard of hearing teens and pre-teens, so Bill, with his wife and co-author Sarah Wainscott, who trains students in speech pathology and deaf education at Texas Woman's University, devised the next best thing. We developed an online, digital field trip that allows students to virtually

Photos courtesy of Sarah Wainscott and Bill Wainscott

Sarah Wainscott, PhD, is an associate professor at Texas Woman's University where she trains students in programs for deaf education and speech-language pathology. Her emphasis is on interdisciplinary collaboration, family-centered practices, and language development in young children who are deaf or hard of hearing.

William "Bill" Wainscott, MS, is a teacher at McMath Middle School for the Denton Regional Day School Program for the Deaf, in Denton, Texas, as well as a certified sign language interpreter. He serves students across a broad spectrum of language and learning needs with a focus on ensuring accessible communication.

Both Wainscotts have worked in the field of deaf education for nearly 30 years. They are married with five children, two of whom are deaf. They love road trips and are on a quest to visit all the national parks. They welcome questions and comments about this article at *swainscott@twu.edu* and *wwainscott@dentonisd.org,* respectively.

Left: In addition to important sites of history, culture, and industry, "hooks" are included to draw student interest, such as the first Whataburger restaurant in Corpus Christi.

visit cities throughout Texas—all while improving their knowledge of geography, history, and culture within their state and remaining in their classroom.

Each digital visit includes short, teacher-created videos presented in sign language and speech using straightforward language with age-appropriate concepts tied to a central theme. The students progress through Sway, free software that allows presentations of material similar to PowerPoint but easily accessed online and synced with SMART Boards or other technologies to facilitate interactive lessons. The lessons can be used in the deaf education classroom or pushed out through a learning management system for students to explore independently.

We targeted deaf and hard of hearing students in grades 6-8 who are enrolled in the 54 regional day school programs in Texas. Each program serves students in varied placements, many of which are self-contained deaf education classrooms. Inspired by our own history of road trips and propelled by a long season of navigating instruction through the season of COVID-19, we—Sarah and Bill—spent a summer (plus a few weekends) traversing more than 4,000 miles across the Lone Star State on our own personal budget, all the while curating a collection of video-based mini-lessons to create a flexible and sharable instructional tool. The result, the Texas Deaf Ed Road Trip, is an Open Educational Resource (OER), teaching material available that can be freely used, changed, or shared. Sway allows for continuous development of the material, welcoming contributions of teachers and students across the state. It is student-centered, adaptable, accessible, and, of course, deaf-friendly. A shared innovation and adventure, the Texas Deaf Ed Road Trip allowed us to bring the state's history, culture, economics, and geography to not only our students but to students in deaf education programs throughout Texas.

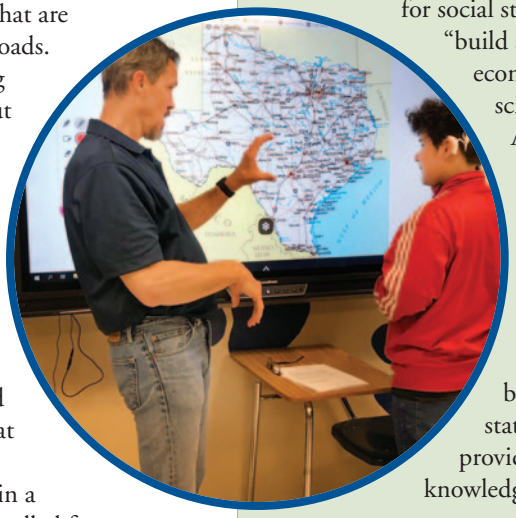
As the video begins and we start to explore a city for the first time, our students are excited to see their teacher projected on the SMART Board. They get hints to help them guess the name of the city. Hints in a recent showing included: *It has a large zoo … money is printed here … its nickname is Cowtown*

Above: Students who have had a vague awareness of a location are excited to build real understanding and make new connections through the videos with comprehensible and accessible language. **Below:** Locating a city on an interactive SMART Board map and identifying relationships and distances from other cities builds knowledge of state geography.

… and its sign is F-W on an outward palm. Students responded quickly. Some recognized Fort Worth and said they had been there. As the video progressed, they initiated discussions. For example, when a video displayed Fort Worth's legendary stockyards, a student asked about the differences between cows, longhorns, and bulls in terms of size and physical features. Another student referred to the stockyard as a "ranch," and Bill explained that stockyards are not ranches but holding areas for thousands of cattle that are moved out of Texas every year by the railroads.

Watching a re-enactment of cattle being driven through town, students asked about the costumes of the cowboys. Bill reminded students that re-enactments are not real; the cowboys are actors, and the longhorns on the screen represent the cattle drives of long ago. Then Bill quickly reviewed the concept of tradition, showed a video about the Cowtown Coliseum, and described rodeo events. None of the students had attended a rodeo, and they were excited to learn that rodeos are "cheaper than Six Flags."

The students were especially interested in a rodeo rider who was Black and deaf. This called for investigation, and while details were difficult to find, the students did find a photo online. Next on the video was a Fort Worth barbeque and most students approved of Bill's choice, though one student recommended chicken nuggets next time. At the end of the sequence, the students were excited to see Bill mount a mechanical bull. He reminded them that to be



Steps in Resource Design: Mapping a Deaf Ed Road Trip

By Sarah Wainscott and William Wainscott

As we designed the virtual Texas Deaf Ed Road Trip, we—like all good voyagers—proceeded one step at a time. The following are suggestions for forging a path to resource development based on our experience:

- **Recognize a shift in instruction**. SMART Boards, video content, and online modules are established instructional tools, but expectations shifted significantly in the response to COVID-19 and the resultant student fatigue. Teachers and students need tools that support learning online, in the classroom, and at home which can also be used for engaging face-to-face instruction.

- **Keep it relevant**. We found that contributions and viewpoints of deaf and hard of hearing individuals added value to our instruction. With these connections inserted into each stop, students quickly experienced an answer to the question, "Why is this important to me?"

- **Identify a need**. The Texas Essential Knowledge and Skills for social studies expects middle school students to "build a foundation in history, geography, economics, government, citizenship, culture, science, technology" (Texas Education Agency, 2021). Our aim was to "backfill" information that had been missed either because students had not absorbed knowledge that their hearing peers gained incidentally or because instruction had not been delivered in a manner that allowed information to be processed and retained. Further, we believe a shared understanding of one's state contributes to good citizenship, provides culturally relevant background knowledge, and builds a sense of group identity.

- **Incorporate accessible language**. Often print-based and even captioned grade-level instructional materials are above the reading level of most students in self-contained classrooms. Wanting to ensure the content was accessible, we developed short, video-based lessons presented in a

conversational style by a deaf educator/interpreter. We used conceptually accurate signing. Delivery was carefully paced, with new vocabulary deliberately introduced and clearly fingerspelled. Captioning was included.

- **Leverage relationships**. Together, we have raised three hearing and two deaf children, and we speak regularly to parents and caregivers on practical topics of supporting language in the midst of busy family life. We also have very different perspectives and skills. Bill, as a certified interpreter and teacher, has strong ties to visual language and the classroom. Sarah, as an audiologist and university faculty member, is closely connected to spoken language and curriculum. We share a love for travel, and our family trips include what teachers recognize as pre-teaching and teaching materials. We made the decision to commit one summer to virtually "bringing along" students with our family through a series of documented educational road trips across the state and package presentations in a format that could complement the curriculum.

- **Consider OERs**. Traditional materials are restrictive in terms of copyright, use restrictions, costs, and accessibility. OERs, however, are used, shared, and modified freely. An OER may be a single video or lesson plan or even a complete online course. Increasingly used in higher education to reduce student costs and tailor materials to specific courses, they have expanded recently to K-12 as well (OER Commons, n.d.). We chose Sway, a user-friendly digital storytelling app free to Microsoft users, that allowed us to create quality materials without the expertise or expense of outside technical support.

- **Enact the plan**. We hit the road with themes—science, art, government, cattle, energy, agriculture—and an iPhone. We headed for cities we had identified as the most populated in Texas as well as cities representing each region of our large state. Additionally, each of the stops had a connection to either a deaf or hard of hearing individual or a concept related to deaf or hard of hearing people (e.g., In Waco, we discussed the lost language of the Waco Indians and preserving the richness of American Sign Language (ASL); in Austin, we discussed the varied forms of Deaf leadership).

- **Put the project together**. We generated an interactive Texas Deaf Ed Road Trip with links to the 15 destinations. Each lesson is designed to be delivered by the teacher in a 20- to 30-minute session. A single Sway link connects each visit, and the lessons for each city are organized in a predictable way, making the resource flexible and easy to use for the teacher as well as engaging for the students. Beginning with *Guess Which City I'm In!*, each video presents students with three hints about the city, the sign name of the city, and finally the name (fingerspelled, spoken, and shown in print on city signage). Students identify the city and its region on a virtual Texas Highways map. They visit various sites through language-rich videos that introduce concepts and vocabulary while showcasing a myriad of the state's interesting features. Resources embedded in the Sway presentation accompany each lesson, including websites of sites visited, writing prompts for various levels, and simple mini-lessons that classroom teachers can use to expand on concepts.

- **Pilot the project**. The Texas Deaf Ed Road Trip went live this year, piloted in Bill's class. Bill was excited to see students engage with and make personal connections to the content.

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Texas Education Agency. (2021, December 28). *Social studies.* Retrieved June 12, 2022, from *https://tea.texas.gov/academics/subject-areas/social-studies*

Resources

Microsoft Sway. (n.d.). *Sway: Create and share interactive reports, presentations, personal stories, and more.* Retrieved June 12, 2022, from *https://sway.office.com/education/*

OER Commons. (n.d.). *Creating with Open Author.* Retrieved June 12, 2022, from *www.oercommons.org/authoring-overview*

scored he had to stay on the bull for eight seconds, and they enthusiastically counted to eight as they watched the video in which Bill rode the "bull" with one hand in the air.

When the road trip ventured to Houston, a student whose father works for NASA was excited to see the space center. When we arrived in El Paso, another student was proud when his Mexican American heritage was featured in the cultural center. Students, drawn in by the lessons, were increasingly able to converse about current events, such as recent supply chain issues and how they are affecting Texas ports and bridges, or comparing the benefits of renewable energy to fossil fuels. Students at varied levels used new vocabulary (e.g., *tourist*, *port*, *military*, *tradition*) in their communication and writing, several carefully using fingerspelling to be more specific (*c-a-t-t-l-e*, not *c-o-w-s*). When news stories mention the advent of major storms or where Texas sports teams are playing, they now recognize the locations. Students were also amused by fun facts, for example, where the first Whataburger was eaten and the location and age of the oldest mammoth fossils in Texas. However, the most excitement came from Deaf connections—and these abound in Texas. When we visited Brownsville, we discussed Alma Schrage, the hard of hearing scientist who studied bird songs using a spectrogram on her smartphone. In Galveston, the star was Leroy Columbo, the heroic Deaf lifeguard who saved hundreds from drowning in the waters off the coast. Then, of course, we have a whole county named Deaf Smith, after the famous spy of the Texas revolution.

At the end of each lesson, students retell what they learned. As the school year ended, they created their own road trip, focusing on their community in Denton, identifying its notable features and its contributions to the state. Their visit will be the last one added before the project is presented in July 2022 at the Statewide Conference for Education of the Deaf.

From that first road trip to Fort Worth, we were pleased with our students' response. After the students re-told the story of the trip—recalling information about c-a-t-t-l-e drives, bull riding, and barbeque, a young girl presented a final question: "Mr. Wainscott," she asked, "tomorrow, Austin?"

Looking Back
Developing a Resource

Through developing our Texas Deaf Ed Road Trip, we used many of the practices we want to cultivate in our students: trying something new, taking risks, sharing resources, and enjoying learning. We discovered only a few materials that were accessible for our students. For example, the most widely used online repository for K-12 materials, OER Commons, with more than 50,000 high-quality items cataloged and available for free, offers only a handful of instructional materials designed for students who are deaf or hard of hearing. This includes about 200 materials for teaching ASL, which are designed mostly for hearing students. Certainly, captioning is typically included, and items could be adapted by deaf educators; still, the gross inequity remains. Our challenge is this:

- **To catalog and centralize materials:** The Texas School for the Deaf, for example, has lesson plans available through the State Outreach Center that cover issues such as tutorials on basic math, a book study on the novel *Wonderstruck*, and a lesson on coding. Bringing these materials together from across programs and locations and cataloging them in a national online repository would equip teachers with a rich instructional resource.
- **To create and share more OERs:** Many teachers, particularly with the COVID-19 pandemic as a catalyst, have created excellent digital materials for their students that other teachers would benefit from using. Collaborating across programs is a great way to increase resources for everyone. Teacher-created items can be classified as OER and added to an online repository in a few simple steps listed under "Create a resource with Open Author" on the OER Commons website.
- **To recognize the varied ways that students who are deaf or hard of hearing access language.** In creating accessible materials for our students, we found that simply providing instruction by adding captions or ASL did not make the content comprehensible. Mediating the content, providing multiple modes of language, intentionally teaching vocabulary, and providing visual demonstrations strengthened any digital material produced for students who are deaf or hard of hearing.

We hope that deaf and hard of hearing students, parents, caregivers, and teachers will drive in person to places we visited virtually and help students own their learning in new ways. Meanwhile, we invite teachers and students from around the country to click into our Sway (*https://sway.office.com/HiGo62VN7tbUtY32?ref=email*) and join our road trip in Texas—and to feel free to add their own destinations, perspectives, and digital comments!

The Great and Virtual Texas Deaf Ed Road Trip

By Sarah Wainscott and William Wainscott

The following chart provides a quick look at where we took students on our virtual Texas road trip. It shows the theme we chose and what we filmed to support an understanding of Texas history and culture as well as the Deaf connections to each city, which garnered the most student response.

CITY STOP	VIDEO VISITS	DEAF CONNECTION VIDEOS
Fort Worth A city with cowboy traditions	Cattle drive, stockyards, rodeo, BBQ, mechanical bull	Deaf rodeo champions
Tyler A city where good things grow	Blueberry farm, Municipal Rose Garden, pecan orchard, Tyler Junior College	Interpreter training program
Corpus Christi A city with lots of tourists	USS Lexington, Texas State Aquarium, city seawall, Mustang Island Beach	Accommodation/captions and "signing"with dolphins
Brownsville A city with lots of wildlife around	World Birding Center, Pollinator Cantina, wildlife refuge, produce stand	Alma Schrage (hard of hearing ornithologist)
Waco A city next to a river	Waco Mammoth Monument, monument to Waco Indians, suspension bridge, Lake Waco Dam	Lost language and assimilation of Waco Indians (parallels to ASL)
Austin A city with important leaders	Capitol building, Texas School for the Deaf, Crepe Crazy, food bank	Deaf-friendly laws, Texas School for the Deaf, Deaf business
Dallas A city full of art	Dallas Museum of Art, Klyde Warren Park, Fair Park, Deep Ellum murals	Deaf artists
Amarillo A city where they raise cattle	Big Texan Steak Ranch, Hall Cattle Ranch, WTAMU Meat Lab, Palo Duro Canyon, Goodnight home	Deaf Smith Courthouse
San Antonio A city with lots of soldiers	Spanish presidio, Six Flags of Texas, Alamo, Fort Sam Houston, Veterans Memorial	Sunshine Cottage School for Deaf Children
Galveston A city with a seaport	Cargo ship port, cruise ship port, shrimp boat, oil rig, hurricane memorial	Leroy Columbo (Deaf lifeguard)
Houston A city that makes scientific discoveries	George Observatory, Johnson Space Center, hospital center, rail system, museum district	Gallaudet Eleven (NASA's Human Spaceflight Program)
Arlington A city that has lots of sports	Globe Life Field, AT&T Stadium, Dallas Wings, bowling center	Deaf athletes (Hoy, Catchings, Coleman)
El Paso A city that has a Mexican border	Ysleta Mission, Good Neighbor Bridge, community market, cultural center	Deaf Hispanic community
Midland/Odessa A pair of cities that have oil wells	Petroleum museum, oil field, gas station, wind farm, solar farm	Douglas Burke and the South West Collegiate Institute for the Deaf
Big Bend National Park No city at all on the edge of Texas	Rio Grande, visitor center, campground, Chisos Mountains, Chihuahuan Desert	Deaf park ranger

Sarah Brandt, EdD, is an associate at The Institute at The Children's Center for Communication/Beverly School for the Deaf, in Beverly, Mass. She has experience as a classroom teacher of the deaf, media specialist, and curriculum coordinator. Her current work at The Institute focuses on connecting research and practice to advance outcomes for deaf, hard of hearing, and hearing individuals with developmental and communication challenges.

Rachel Benjamin, MEd, is a curriculum coordinator at The Children's Center for Communication/Beverly School for the Deaf, in Beverly, Mass. She supports teachers in creating and modifying curricula to meet the needs of every student. She has experience as a paraprofessional, special education teacher, home support provider, and employment specialist.

The authors welcome questions and comments about this article at *sarahbrandt@cccbsd.org.*

Transformation: Reframing Academic and Functional Learning

By Sarah Brandt and Rachel Benjamin

On a late October afternoon, students in Ms. A's class finalized their individual campaigns to run for class president. The students, ages 19-21, were in a transition classroom and—like all the students at The Children's Center for Communication/Beverly School for the Deaf (CCCBSD)— were learning about the United States and its presidential election process. CCCBSD follows a theme-based learning model, providing a quarterly theme around which teachers base cross-curricular instruction. The themes are intentionally broad to encourage teachers to create instructional units that integrate academic and functional learning in response to the unique needs of each student.

For this unit on the United States, learners in Ms. A's class did online research on various presidents and created a list of adjectives that made each an effective leader. On the surface, this may look like a standard social studies lesson. However, Ms. A also integrated academic and functional learning through digital literacy, online safety, and English language arts skills. Further, the lesson targeted personal

Photos courtesy of CCCBSD

Left: In the school kitchen, Brett blends academic and functional learning while building his independence and confidence. Many academic tasks can be integrated with a functional activity in the kitchen.

development by encouraging students to connect their perception of their own strengths to the leadership qualities of the presidents. Throughout the instructional unit, Individualized Education Program (IEP) objectives targeted student-specific skills such as commenting, relaying information, and following multi-step directions.

At the opposite end of the building, Ms. C's students, ages 5 and 6, explored the United States theme from a very different angle. These students took a virtual trip around the United States, focusing on transportation, housing, food, entertainment, and the Deaf community. As with Ms. A's class, at first glance the instruction may have resembled a typical social studies unit. However, the areas of focus were selected for their relevance and relatability; each provided opportunities for language expansion and discussion of personal experiences and preferences. IEP objectives such as American Sign Language development, object identification, and emerging reading skills were easily embedded to create rich, meaningful learning opportunities. Despite the difference in their ages, students in both classes engaged in transformative theme-based learning opportunities that embedded academic and functional learning appropriate to their individual needs.

Ms. A and Ms. C successfully illustrated transformative practices by implementing innovative teaching strategies to drive lasting change in student learning. While all education should aspire to be transformative, as educators we sometimes get stuck in regular patterns. To transform our teaching, we need to reconsider our mindset, beliefs, and orientation. The authors engaged in this process regarding the dichotomy between academic and functional learning with the goal of improving instruction in our classrooms.

Academic and Functional Learning: Two Parts of an Educational Whole

The IEP forms the foundation of each student's special education, identifying strengths and needs across academic achievement and functional performance (Harmon et al., 2020). As described in federal policy (U.S. Department of Education, 2006), *academic achievement* includes classroom-based areas such as reading, math, science, social studies, and history, while *functional performance* is those skills or activities that are not considered academic, including activities involved in everyday living. While these definitions ensure that functional skills—which were for many years not included in student programming—are not overlooked on the IEP, they also create a dichotomy that filters down to everyday practice in the classroom as well as assessment, curriculum, and teacher preparation coursework.

In traditional models, younger students, like those in Ms. C's classroom, would engage in academic learning, mastering

Far left: Academic and functional learning can be effectively integrated into community-based settings. In the greenhouse, Reina focuses on science, measurement, and communication with non-signing individuals.

Left: A "simple" trip to the store is a powerful way to blend academic and functional learning. Here, Sevrina focuses on mobility and communication in the community, choice making, budgeting, and literacy.

skills in reading and mathematics, while older students, like those in Ms. A's classroom, would focus on functional activities such as cooking and self-care. However, our experiences show that isolating academic and functional learning does not benefit our deaf and hard of hearing students, including those with disabilities.

Attempting to categorize learning activities as exclusively academic or functional can be limiting. As educators, we seek to set objectives, design activities, and teach lessons that are, at their core, both practical and useful, and thereby functional as well as academic. It can be beneficial to shift the mindset and consider how traditional academics can be functional, and how traditional functional activities can be academic. This opens the door to employing transformative practices that empower creativity, deep learning, and more effective teaching. Blending academic and functional learning can transform educational practice and lead to lasting change.

From Transition to Preschool: Transformational Trickle Down

Are we preparing all students for adult life? Is our instruction effective and aligned to state standards? At CCCBSD, these were the questions our working group asked as we began our reexamination of classroom practices. While we had a solid foundation from which to build, we quickly realized we could implement innovative and transformative practices by redefining how we thought about and actively integrated academic and functional learning.

Initially, our working group sought to consider the effectiveness of our programming for students ages 14-22 years old who were beginning their transition into adult life. However, our discussions continually returned to comments such as, "This is important for everyone," and "These skills need to be addressed earlier." We recognized that areas such as daily living (e.g., cooking and kitchen safety), community participation (e.g., community access and transportation), and personal development (e.g., social pragmatics and employment skills) were traditionally taught as part of functional programs, including our own. We began to rethink this approach and consider how these critical skills could be integrated with traditional academics. This initiated a transformational trickle down as change was effected for all our students, including those as young as preschool.

Applying a transformative mindset to the dichotomy between academic and functional learning meant letting go of previously held beliefs. For example, academic literacy does not always have to mean reading a book or writing a paragraph. It can effectively happen through having students explore a magazine, a menu, a social media platform, or a ride-sharing app. In fact, authentic experiences can drive generalizability of IEP goals, streamline lesson planning, and improve instruction in the classroom. Additionally, blending academic and functional learning supports the development of goals and activities that encompass a wider range of Bloom's cognitive domains: remembering, understanding, applying, analyzing, evaluating, and creating (Bloom et al., 1956; Krathwohl, 2002). This can be beneficial for teachers seeking to transform their practices starting at the foundation: the IEP.

Reframing a Program: Five Tips

Through reflection on this multi-year transition in mindset, we identified five tips to help educators seeking to transform their practice by blending academic and functional learning:

1. **Think long-term.** Thinking long-term means more than setting an annual IEP goal or preparing for the next instructional unit. Rather, educators step back and consider how a goal or lesson fits with the vision outlined in the IEP for each deaf and hard of hearing student. Is the student preparing to enter college? To seek employment? To engage in a community group setting? The IEP team—including the family and student—

should discuss these questions to ensure academic and functional learning are blended and that IEP goals and instructional planning are tied to life goals.

2. **Plan strategically**. Deaf and hard of hearing students often enter our classes with gaps in academic skills and splintered knowledge (Pagliaro & Kritzer, 2012). As they grow, these gaps and splinters may become more impactful, and educators sometimes wonder, "How can I get through all this?" Blending academic and functional learning allows educators to step back and plan strategically. The students' existing skills and long-term vision for their success determine the greatest teaching priorities. For deaf and hard of hearing students, particularly those with disabilities, this means planning strategically. What is truly significant? Strong academic skills devoid of the ability to use those skills with others will not prepare a student effectively. Rather, educators can select academic skills strategically to transform their instruction. Not all gaps may need to be filled.

3. **Apply a 21st century perspective.** It is critical that educators prepare their deaf and hard of hearing students for the world in which they live. Are students more likely to read a newspaper or access news online? Is it more important for students to memorize their multiplication tables or to know how to use a calculator app on their phone? Teachers can apply a 21st century perspective by setting IEP goals and planning activities that are appropriate for a student's long-term goals. Additionally, teachers should provide these activities in a format reflective of the world in which they live and the future into which they will grow. This may mean, for example, that instead of spending undue time on coin and bill identification, Ms. C's students use imaginative play to begin to learn about debit cards and safe digital options for payments.

4. **Focus on the S's: social pragmatics, safety, self-advocacy, and sexuality and health**. Many deaf and hard of hearing students face challenges in developing pragmatic skills, which can impact social communication, interactions, and relationships (Szarkowski et al., 2020). As a part of their social-pragmatic development, students need appropriate safety and self-advocacy skills. For example, consider a student in Ms. A's class who, with his team, set a long-term goal of interviewing for and gaining employment at a local restaurant. This would guide important teaching objectives and learning activities as the student focused on communication skills to interact effectively with supervisors and customers, literacy skills to understand the menu and take orders, and math skills to charge customers for their meals. It would also involve teaching skills in self-advocacy. For example, if another employee were to use abusive language or act in a sexually inappropriate way, the student would need self-advocacy and safety skills to seek support. Across their lifespan, all deaf and hard of hearing students—including

Right: Reframed learning can truly take place anywhere. In the classroom, Becca and her peers make bread dough, targeting reading a recipe and measurement for cooking. When it is time to bake the bread, they focus on working collaboratively and safety in the kitchen.
Far right: While in the community, Connor applies his literacy skills and practices independent mobility. He has a deep interest in travel, which is fostered by his involvement in planning this community outing.

Left: Yariel participated in a Turkey Trot event that provided a meaningful way to target social-pragmatic skills (e.g., winning/losing, supporting others), health and wellness, and math (e.g., elapsed time, rank order).

those with disabilities—will navigate relationships, identity, body, and sexuality issues; they will have a need for self-advocacy across many contexts. Teaching needs to start early. Even students as young as those in Ms. C's class can focus on language and social pragmatics related to the concept of consent.

5. **Embed exploration opportunities**. Moving learning from the classroom into the community can be effective in addressing a multitude of IEP goals simultaneously. For example, traditional academic goals, such as math computation or making predictions while reading, can be integrated into a student's active involvement in the planning, decision making, and execution of a community outing. As part of the instructional unit on the United States, Ms. A's students may decide they want to learn more about their local government. In doing so, they could send a professional e-mail to the mayor's office, furthering their skills in composition, social pragmatics, and digital literacy. Then they could plan a visit to the town hall by taking public transportation, fostering skills in time management, budgeting and spending, and community access. Moving some traditional academic activities into the context of authentic experiences is an effective way to transform instruction. Learning in context can also highlight gaps in students' incidental knowledge (Hauser et al., 2010), allowing educators to strategically plan how to address those needs.

Perhaps some adults look back at their own education and wish they had learned less about the traditional academic skill of understanding parallelograms and more about the functional skill of filing taxes. Our process at CCCBSD was certainly not linear, and we are still pursuing transformation in our teaching and learning. However, reframing our understanding of academic and functional learning has improved our teaching by providing students with strategically designed instruction within authentic contexts. By shifting our mindset and integrating academic and functional learning, we are transforming our practices and creating meaningful learning for our deaf and hard of hearing students, including those with disabilities.

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AT-A-GLANCE
Reframing Academic and Functional Learning

	TRADITIONAL APPROACH	REFRAMED APPROACH
Think long-term	Students are engaged in academic-only activities until at least age 14. Consideration of functional learning does not begin until transition.	Academics at all ages are provided in the context of authentic, functional activities that are connected to a long-term vision.
Plan strategically	An IEP goal is written for identifying time and understanding on an analog clock. The goal is repeated over several years.	An IEP goal is written for identifying and understanding time using a variety of strategies: digital/analog clocks, text-to-speech (when appropriate), and use of smart devices.
Apply a 21st century perspective	Students are required to put personal devices (e.g., cell phones) away when it is time for learning. These are not accessed during the school day.	Safe and appropriate use of personal devices is integrated into students' daily activities. For example, deaf and hard of hearing students bring cell phones on a community outing and practice using their devices to communicate with non-signers.
Focus on the S's: social pragmatics, safety, self-advocacy, and sexuality and health	Deaf and hard of hearing students learn surface-level information about body changes and sexual health, often started later in adolescence. Students who are deaf or hard of hearing with disabilities often are not exposed to these topics at all.	All deaf and hard of hearing students, including those with disabilities, engage in human development education (e.g., sexuality, gender identity, communication and relationships, self-advocacy/consent) that is age- and developmentally appropriate.
Embed exploration opportunities	Exploration opportunities are facilitated by a teacher or transition coordinator starting during transition age (i.e., age 14). The student is in a passive role, and their preferences, input, and goals may not be reflected.	Exploration opportunities (e.g., job placements, community outings) are facilitated by the student, teacher, and transition and/or curriculum coordinator. The student's preferences, input, and goals drive the planning of these opportunities.

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Facing Masks:

Teaching Deaf and Hard of Hearing Students During a Pandemic

By Lauren Trainor

Sometimes transformation is forced upon us, and how we meet it depends on us. The COVID-19 pandemic—with its mask mandate—brought unique challenges to educators of deaf and hard of hearing students.

The onset of the pandemic and the resulting mandate that everyone wear a mask affected communication and the accessibility of human speech. According to an article in *Audiology Today* (Atcherson et al., 2020), up to 20dB of the human voice can be lost due to wearing a clear face mask and even more if a shield is worn in addition to a mask. As masks also hide the mouth and often much of the face, visual cues to the speaker's words are severely limited, too. This can be devastating for individuals who are deaf or hard of hearing.

No longer could those of us who relied on residual hearing and access to speech cues understand the masked majority. The masked environment changed the way we view accessibility for ourselves and for our students. As a lifelong user of hearing aids and facial cues to understand speech and social interactions, I have faced the nightmare personally.

One of the first frustrating incidents occurred in the early spring of 2020. I was waiting in line at the grocery store when an older woman began talking to me. I was trying to maintain a distance of six feet, and I told her that I was hard of hearing and did not understand her. She continued to speak, and I continued to not understand. I reminded her that I could not hear, turning my head and pointing to my hearing aids, but she kept talking. I grew even more uncomfortable. I was not sure if she was smiling, laughing, or scowling, and I had absolutely no idea what she was saying. Exasperated, I began to sign to her, and when she saw my hands in the air, she suddenly stopped talking. The entire experience left me feeling defeated and unsure of how to proceed. I wondered: *If I am struggling this much with casual conversation, how much will I struggle at meetings and doctor's appointments?*

The answer was—and is—that I struggle a lot. While masking has now become a choice in many areas of the United States, COVID-19 variations continue to spread and many people continue to mask. I struggle to understand people in the grocery stores,

Photos courtesy of Lauren Trainor

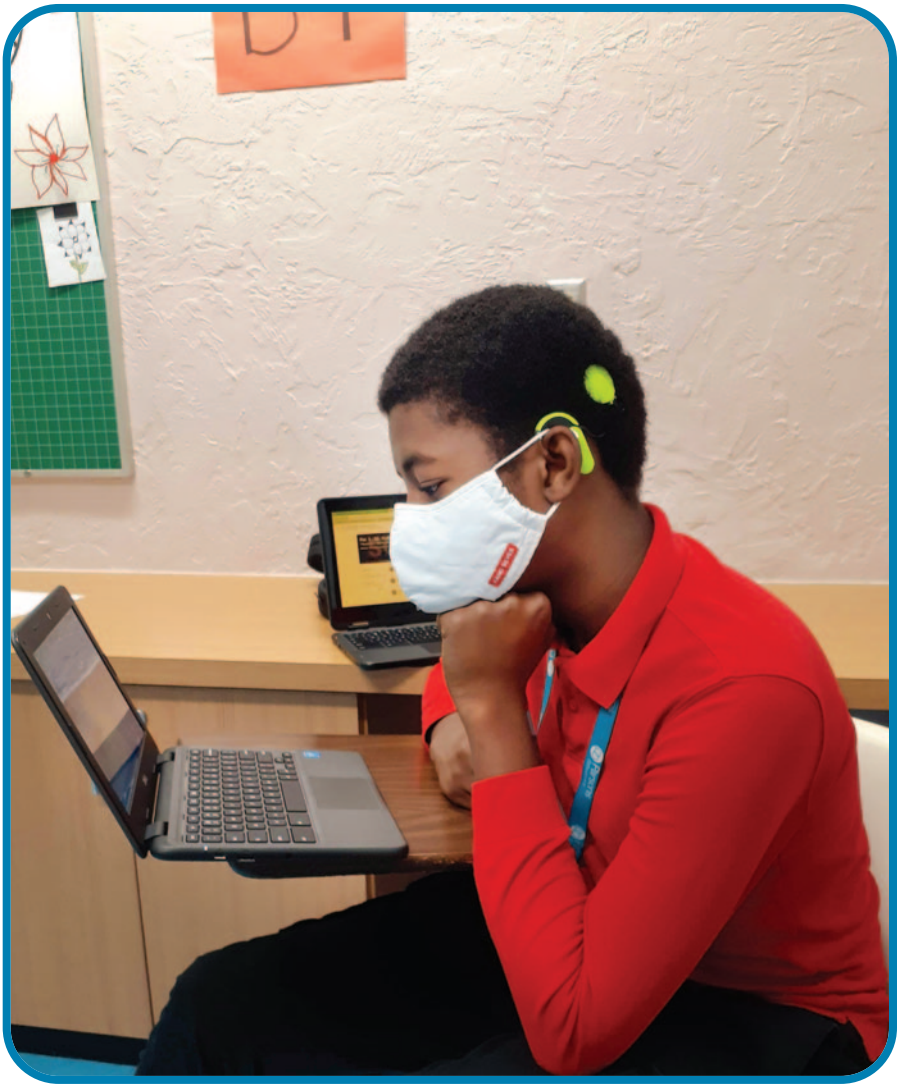
banks, offices, and school hallways. I also struggle to understand my deaf and hard of hearing students, both virtually and in the classroom—and I know they struggle to understand me.

With the required mask mandate of many school districts, the frustration of being able to understand others was amplified overnight. Not only would students have to struggle to follow lectures in the classroom, but they would have to struggle to follow simple conversations. As the pandemic continues and as masking does as well in many schools, our students, a most vulnerable population, continue to endure an additional hurdle as they scramble to understand teachers and peers. The question we, as teachers, must address is: *How can we provide support to our deaf and hard of hearing students so that they continue to learn, especially those who rely primarily on audition?*

Technology in the Classroom

My school district has come up with a variety of new approaches to combat the inaccessibility of sound and lack of access to visual cues for students who are deaf or hard of hearing. These include:

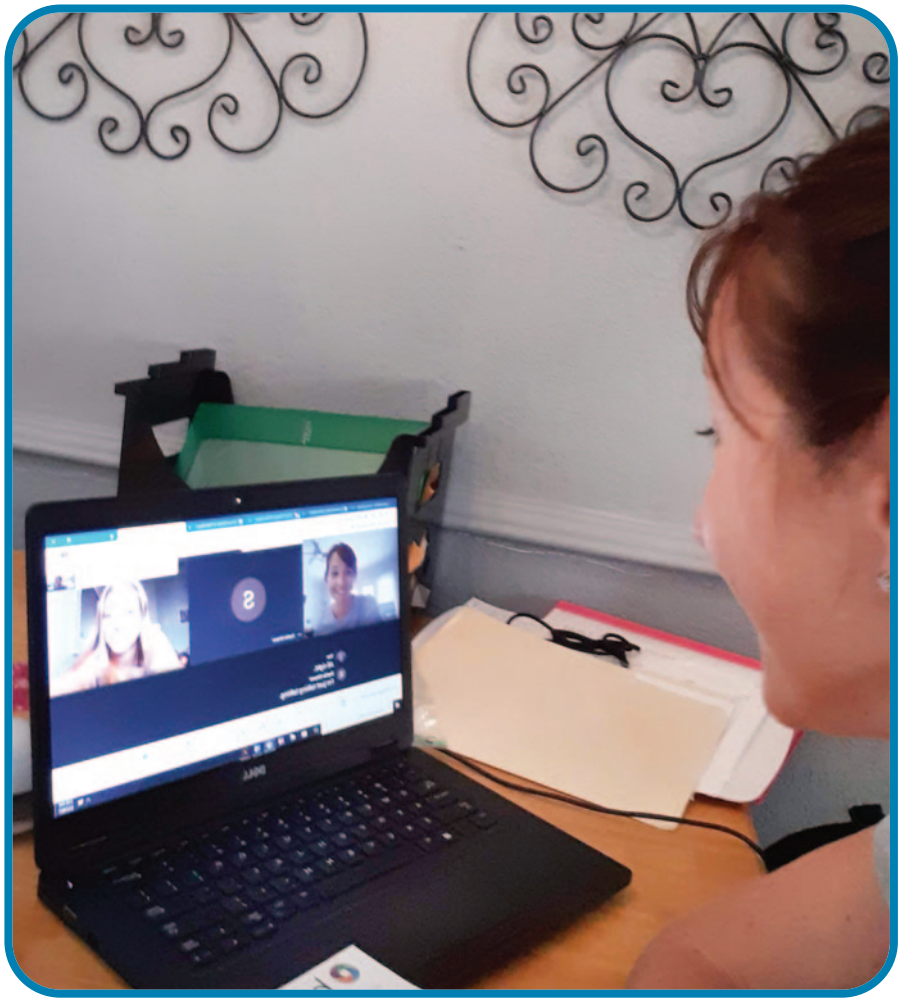
- **Face shields** for teachers to use with students who need access to their teacher's face
- **Bluetooth to the max**—microphones to be used with automated captioning that allow better voice detection and Bluetooth capacity for hearing assistive technology and cochlear implants as well as phones, computers, and tablets
- **Captioning apps**, such as Ava and Otter, that can be downloaded to students' phones
- **Electronic devices**, such as iPads, notebooks, and laptops, to aid in understanding spoken language (especially with masked peers)
- **Automated captions** in addition to assistive hearing technology and visual cues for live and recorded instruction



Above: Electronic devices, such as iPads, notebooks, and laptops, aid in understanding spoken language, especially with masked peers.

While as a teacher I promote each of these options, I always note an important caution. Though technology can make information more accessible, it is a poor substitute for communicating face to face with mask-free faces. I tell my students to be aware that they might miss something and to always look out for inaccurate or incomplete information.

Fortunately, with the rise of automated captioning, I find that the captioning devices, while not as accurate as a well-trained interpreter or real-time captionist, are more accurate than ever.



Left: The Functional Listening Evaluation can help determine which supports benefit individual students as well as the most efficient use of technology.

Nevertheless, the National Deaf Center (NDC), in its position statement, has said that automated captions are not equitable for deaf and hard of hearing students. One of the reasons the NDC cites this is their inaccuracy. Most of my students refer to captions when they don't hear words or don't understand their meanings. The scenarios that lead to or impede understanding can and do change drastically for these students. One moment, they sit in a quiet classroom with a native speaker and the automated captions provide equity of access to the individual's speech. The next moment, the same students find themselves in a noisier classroom with a non-native speaker of English and the automated captions actually create a hurdle to understanding. The environment, the needs and understanding of the students, and how they access sound are variables that determine equity.

Aid to Understanding the Functional Listening Evaluation

A well-executed Functional Listening Evaluation (FLE) can help teachers know what strategies will be most effective in helping their students understand as much as possible in various learning environments. The FLE can determine the most effective use of technology as well as identify which environmental factors influence the students' ability to understand information from the speaker or, in some cases, the signer. Variables such as lighting, access to the speaker's face, hearing assistive technology, and distance have all traditionally impacted the ability of students who are deaf or hard of hearing to understand spoken language. The beauty of the FLE is that the assessor may give it and target specific scenarios that are perceived to be impacting the student and recreate these scenarios while taking data.

In addition, the FLE can shed light on the effect of types of masks or face shields on student understanding. It can also inform the use of captioning and Bluetooth technology. The results can be surprising. For example, my student who is hard of hearing and uses behind-the-ear hearing aids was given the FLE to determine if automated captions during online instruction were aiding in her comprehension. Much to my surprise, we learned that the captioning was not helping her; instead, she preferred to keep the captions off as they lagged behind the action on the screen and proved to be a distraction. Another student who uses a cochlear implant with Bluetooth capabilities showed equally surprising results. The student was observed using the captions on two different devices to aid in his understanding. The FLE showed that Bluetooth on his computer or phone did not help him, but he experienced significant improvement in his understanding with the automated captions. For a third student, the FLE showed the use of captions was critical to understanding; for another student, the use of sound without captions was critical. Thus, the supports that benefit individual students vary—and the FLE can help us in determining which students have what needs.

Monitoring Understanding Critical to Observe

Students need to be taught to monitor their own understanding and provide feedback when something is not understood. This is a hard-won skill and, especially for younger students, effective teaching means not relying on student monitoring; we as teachers must monitor them ourselves. One way to do this is through observation. When teachers observe their students, they can determine if students are responding appropriately to teachers' or peers'

Helpful Links to Resources

MASKS/SHIELDS:

- **The Communicator™** (FDA-approved clear mask) *https://safenclear.com*
- **Humanity Shield™,** *https://rapidresponseppe.com*

CAPTIONED APPS:

- **Ava,** *www.ava.me*
- **Live Transcribe,** *www.googleplay.com*
- **Web Captioner,** *www.webcaptioner.com*
- **Otter,** *https://otter.ai*

MASKS AND SPEECH QUALITY:

- ***Audiology Today,*** *www.audiology.org/audiology-today-novemberdecember-2020/more-speech-degradations-and-considerations-search-transparent*

CAPTIONS:

- **National Deaf Center,** *www.nationaldeafcenter.org/news/auto-captions-and-deaf-students-why-automatic-speech-recognition-technology-not-answer-yet*
- **National Association of the Deaf,** *www.nad.org/resources/technology/captioning-for-access*

FUNCTIONAL LISTENING EVALUATION:

- **Hands & Voices,** *www.handsandvoices.org/pdf/func_eval.pdf*

comments and questions; they can ensure students understand and are following directions.

Observations are also needed to ensure technology is doing what it is supposed to do, to ensure the automated captions are accurately reflecting the speech of a video or that the captions are keeping up with a live speaker. Teachers cannot depend on students identifying and reporting their problems with technology. Only through our own observations can we determine if the accommodations are appropriate and if changes are needed.

Mask Wearing Means Re-Evaluation of Teaching

With the advent of universal masking, a revisit to the Individualized Education Program (IEP) or 504 plan is required. Incorporating the FLE along with observations can help teachers gauge and monitor their students' understanding of day-to-day activities. Accents, background noise, and inaccurate captions can provide hurdles to accessibility and should be taken into consideration when determining student accommodations. It is important to note that needs for accommodations may differ from situation to situation and from day to day. For example, students who typically do well in classes with minimal need for any accommodations may find themselves struggling to understand a speaker with an accent. Students who have been able to benefit from spoken face-to-face interactions may find that the introduction of masks makes it impossible to understand instruction without captions or a sign language interpreter. The IEP must be reviewed and updated as the changes in accessibility are observed.

The approach to accessing information for students who are deaf or hard of hearing has never been a one-size-fits-all affair, and the pandemic, with its mask-wearing mandate, complicated an already complex situation. As the learning environment shifts, teachers may need to change student accommodations, and sometimes these changes are counterintuitive. Teachers should talk with their students about what works, observe their students, and ensure the FLE is complete. Our students are dependent on us to help them as they face the challenges of universal mask wearing and successfully continue their education.

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Teaching Literacy through Movement: A Transformative Partnership

By Amanda Howerton-Fox, Michelle A. Veyvoda, Hannah Park, and Julia Silvestri

Amanda Howerton-Fox, PhD, associate professor of language and literacy education at Iona College in New Rochelle, N.Y., earned her doctoral degree in deaf education with a concentration in applied linguistics from Columbia University. She is the co-director of Iona College's Interdisciplinary Advanced Certificate for Working with Deaf/Hard of Hearing Children and their Families.

Michelle A. Veyvoda, PhD, associate professor at Iona College in New Rochelle, N.Y., earned her doctoral degree in deaf education from Teachers College, Columbia University. She previously provided early intervention, pre-school, and school-age services for deaf and hard of hearing students throughout the New York City area. Veyvoda is the co-director of Iona College's Interdisciplinary Advanced Certificate for Working with Deaf/Hard of Hearing Children and their Families.

Recent inquiry has promising implications for ways in which sign language and dance might transform English language arts education for signing deaf children (Napoli & Liapis, 2019). As two forms of visual communication, dance and sign language can inform and enlighten each other. In fact, for some deaf children, dance may serve as a bridge between the unmoving linear language of print and the dynamic, layered language of sign.

At the New York School for the Deaf, Fanwood, students participated in a school-based community arts program designed to use creative movement to enhance deaf and hard of hearing children's literacy skills. This program brought together professionals from a variety of disciplines, including deaf education, speech-language pathology, and dance education. These professionals, with a team of teachers, teaching assistants, and administrators, developed and implemented an innovative curriculum that has the potential to transform the way deaf and hard of hearing students from across ethnic, linguistic, and socioeconomic backgrounds experience literacy instruction while increasing access to dance education.

Here are some of the activities we tried, the lessons we learned, and the questions we still encounter.

The Benefit: Dance for Those Traditionally Marginalized

Numerous benefits have been associated with arts education for children from various marginalized groups, including students of color, students from low socioeconomic status backgrounds, and students with disabilities (Caterall, 2009). Some of these benefits include positive self-esteem, self-identity, confidence, sense of purpose, and sense of individuality and uniqueness (Andrus, 2012; Dorff, 2012). Unfortunately, for children with special needs and children from low socioeconomic backgrounds, access to arts education can be difficult. Financial constraints, lack of transportation, and communication barriers are among the reasons that these children glean less access to the arts than their more fortunate peers.

For deaf children who communicate through American Sign Language (ASL), innovative

Photos courtesy of Amanda Howerton-Fox

Above and left: The arts education program developed at Fanwood allowed deaf and hard of hearing students to experience dance as both an art form and a mediating tool through which they could learn literacy concepts and improve understanding of specific grammatical features.

pedagogical approaches that link arts education to content instruction can be even harder to access. Through the program we developed at Fanwood, deaf and hard of hearing students experienced dance as both an art form and a mediating tool through which they could learn literacy concepts and improve understanding of specific grammatical features.

The Inspiration: Interdisciplinary Conversation

The curriculum was a partnership of this article's first three authors who are professors in the fields of education, communication sciences and disorders, and fine and performing arts at Iona College in New Rochelle, N.Y., and the fourth author, then director of Special Programs at Fanwood, a regional school for deaf students. As with many interdisciplinary projects, this partnership emerged initially from a collegial conversation between two faculty members, Dr. Hannah Park and Dr. Michelle Veyvoda. Park, a professor of dance whose career has focused on curriculum development, community engagement, and somatic practices, expressed interest in applying her method of somatic movement practices to English language arts instruction with signing deaf children. Veyvoda, a speech-language pathologist who teaches courses in speech-language pathology and ASL and has worked with deaf and hard of hearing children for over 10 years, was intrigued. Veyvoda agreed to contact the nearby Fanwood school, where Dr. Julia Silvestri was serving as director of Special Programs. She also engaged Dr. Amanda Howerton-Fox, another colleague who is a certified literacy specialist and teacher of the deaf. All parties eagerly came on board, and an innovative partnership was born.

The Partnership: Setting Goals and Learning

Once the partnership between Iona College and Fanwood was in place, the next step was for the interdisciplinary parties to learn from each other. Park, who had not worked with deaf or

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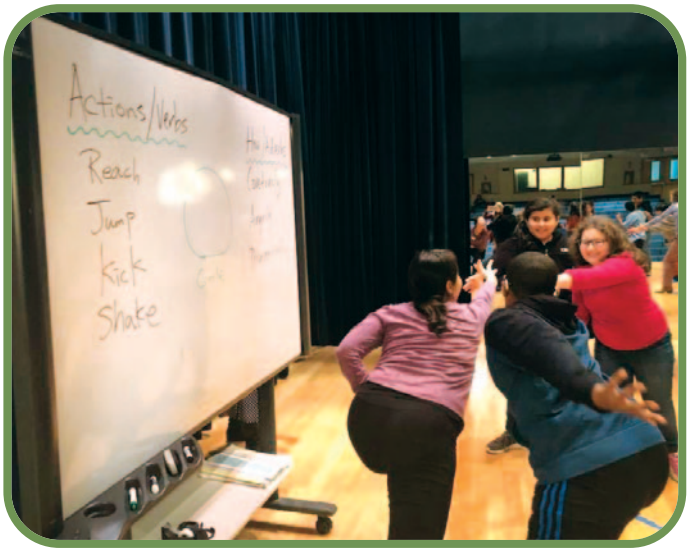
Julia Silvestri, PhD, lector in American Sign Language (ASL) and coordinator of the ASL program at Yale University, Conn., earned her doctoral degree in physical disabilities from Teachers College, Columbia University, and her education specialist degree in educational leadership from George Washington University. In addition to a background as a K-12 educator and administrator in a range of schools for the deaf and public school programs in N.Y., Conn., and Mass., she participates in ASL poetry, film, and performance arts organizations as a producer and performer.

The authors welcome questions and comments about this article at *ahowertonfox@iona.edu.*



hard of hearing students before, brought her knowledge of the somatic method and the elements of dance to the partnership. Howerton-Fox, Veyvoda, and Silvestri brought their knowledge of language and literacy instruction, sign language, and deaf education. Silvestri selected four classes at Fanwood—one each from grades three, four, five, and six—and those teachers shared information about the students—including their diverse cultural, linguistic, and socioeconomic backgrounds, hearing levels, types of listening technology, strongest mode of communication, and learning styles. Silvestri and the teachers at Fanwood also determined the curricular goals they wanted to achieve and communicated them to the team.

These goals were to:

- Increase students' ability to identify plot and character traits through shared reading of English language text interpreted into ASL
- Increase students' understanding and use of adverbs and prepositions in ASL and written English
- Expose students to dance and movement as self-expression and sociocultural connection

The Program: Warm Up and Stretch

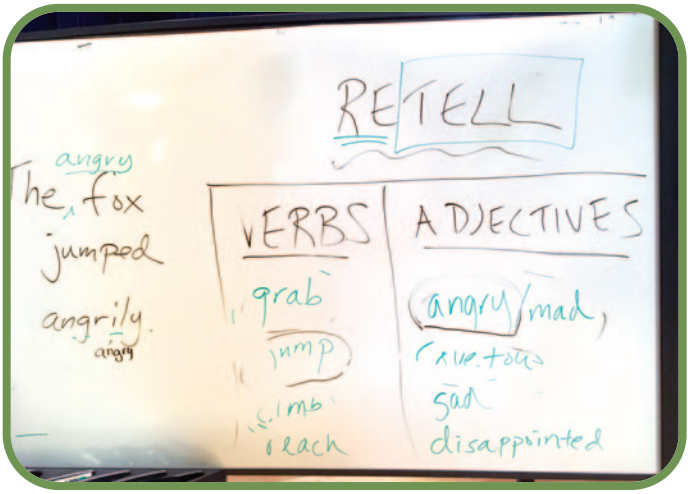
Our team developed a creative movement program to enhance the students' concepts of movement that corresponded to selected literacy skills. Movement was used as a metaphor for grammatical concepts, such as prepositions and adverbs. For example, the elementary school students would use their own bodies and the bodies of their partners to explore spatial relationships and then name those relationships with relevant prepositions (e.g., in, on, through) in both English and ASL. They would explore the "how" of each movement to understand adverbs (e.g., angrily, sadly, lazily), and they would investigate plot and character through the narrative arc of dance.

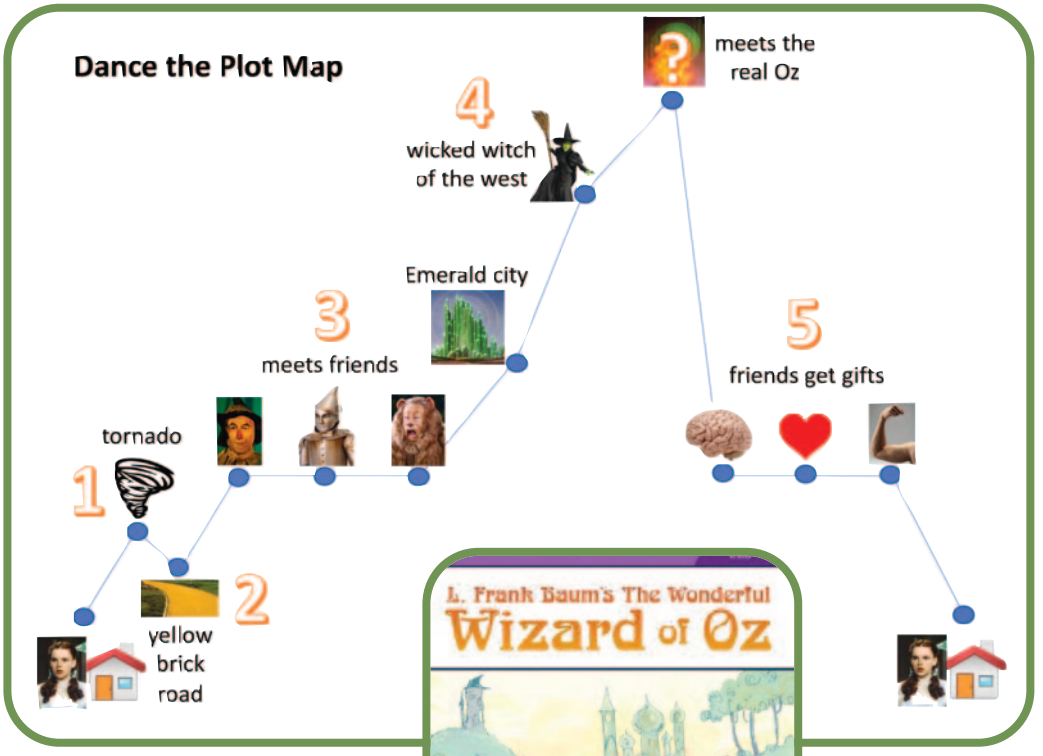
Left and below: At the end of each class session, students and their teachers returned to the white board to revisit the grammatical concepts they had explored.

In each session, Park, assisted by an ASL interpreter, began by leading the students through stretching and warm-up exercises. Park then described how the students would explore a particular concept (e.g., adverbs, prepositions, plot, character traits) through movement, and she would model this for the students. Each lesson focused on a single literacy skill, but students would often make connections to other skills during their discussion (e.g., noting how adverbs help them show a character's traits). Then—to rhythmic, percussive music—the students explored the movements themselves. Each session ended with teachers and students back at the white board, guided by Howerton-Fox or Veyvoda, sharing the movements they had used for each grammatical concept and making explicit connections between their movements, the concept, and the text.

Developing Literacy Skills through Movement

The Fox and the Grapes, Aesop's timeless tale of a fox who feigned disdain for hard-to-reach grapes after realizing his inability to attain them, was chosen to introduce the connection between movement and vocabulary, with a focus on adjectives, verbs, and adverbs as parts of speech with different functions in language. In this four-week introductory unit, the students were exposed to *The Fox and the Grapes* through an interpreted read-aloud. They then began to focus on the vocabulary in the text and how it could be interpreted via movement. They learned new verbs, such as *hang*, *twist*, *jump*, *grab*, and *climb*, by connecting the print to corresponding movements on the stage. They learned adjectives, such as *disgusting*, *covetous*, *determined*, *angry*, and *patient*, the same way. By using the movement of their bodies, the students practiced (to a count of four beats using rhythmic, percussive





Left: Park, Howerton-Fox, and Veyvoda explored the plot of *The Wizard of Oz* with the students by developing a plot map of the story and having the students dance through it.

music) *reaching* up to catch grapes and *jumping* and *twisting* their bodies to catch grapes. Then, by changing the "how" of their movements, they explored adverbs. For example, after doing a sharp, *angry* dance, they were introduced to the adverb *angrily* to describe the "how" of their own and the fox's movements.

Seeing the success of the initial unit, the classroom teachers chose *The Wizard of Oz*, another cultural epic, to teach a follow-up eight-week unit on prepositions, plot, and character traits to the same four classes of students. An illustrated, abridged version of L. Frank Baum's classic (Hautzig, 2013) was chosen for this unit to ensure the language would be accessible to the students and that we could read the complete story during the course of the unit. To begin the unit, all four classes gathered in the auditorium for an interpreted read-aloud of the text. Then Park, Howerton-Fox, and Veyvoda explored the plot with the students by developing a plot map of the story and having the students dance through the map.

To explore the concept of *character*, the students first created name signs for Dorothy, the Tin Man, the Lion, and the Scarecrow. As is culturally appropriate, they chose each character's name signs based on their personality traits or appearance. They also developed movement patterns and moved in ways that embodied each character. For example, they hung their bodies limply to represent the Scarecrow, they stiffened their movement when they became the Tin Man, and their movements became fierce when they became the Lion.

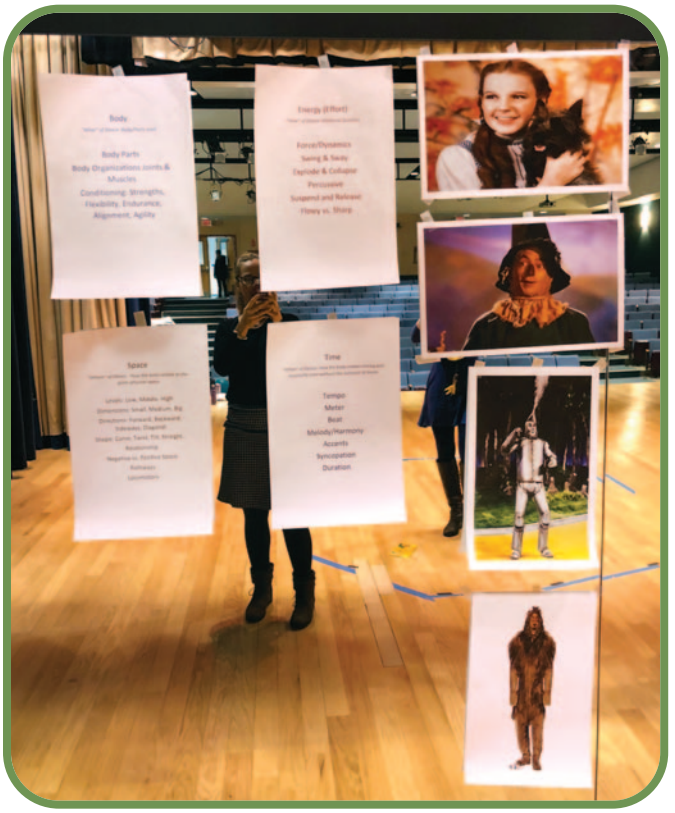
To explore prepositions, each student worked with a partner, and as a twosome, they used their bodies to show relationships from the text. For example, when students had to use the preposition *to*, as in the phrase "ran to the cellar," some students would represent the cellar and stand stationary while other students ran *to* them. To illustrate the preposition *with*, as in the phrase "with the dog," both students might travel together through their space as a unit. At the end of each session, the students and teachers returned to the white board to revisit the grammatical concepts they had explored and to connect their chosen movements to the prepositions they encountered in the English print.

The Challenges: Lessons Learned

Teachers were excited by the students' use of targeted vocabulary during the sessions. They reported that, while they had initially been skeptical of this teaching methodology, they saw clear connections between dance and literacy, and they were pleased to observe the students' confidence growing over the course of the semester. They appreciated that each session ended at the white board, with Howerton-Fox or Veyvoda making explicit connections between the movements the students had explored and concepts in the text.

Another important outcome of this partnership was the opportunity to explore some of the challenges involved when a hearing artist was partnered with signing deaf students. Working with an interpreter in a movement-centered class involved some unforeseen challenges. Often, Park called out instructions or directional changes while the students were already in motion and they were not watching the interpreter. We were fortunate to work with an interpreter who was also a trained dancer during a few of the sessions, and Park and this interpreter were able to work together more smoothly.

Other challenges that Park and the team had to work through included learning to allow wait time for the interpreter



Left: Students developed movement patterns for each character in *The Wizard of Oz* and moved in ways that embodied those characters.

to sign, learning not to talk while simultaneously modeling movement (which would have required the students to watch her and the interpreter at the same time), and learning to trust herself to try using some of the signs she had been taught by the interpreters or the rest of the team. This echoes the recommendation of Seham (2012), who in describing inclusive dance education programming writes that teaching-artists should receive training in how to work with students with disabilities and how to adapt and transfer instructional methods and dance styles to the population they are teaching.

There were challenges associated with acoustics and communication modality as well. The percussive music had to be loud enough for the students to hear, but that meant that when Park shouted over the music, her speech was distorted. A learning curve was also needed for Park to use the FM transmitter, to work with the interpreter efficiently, and to learn to use natural-sounding speech rather than increasing her volume or exaggerating her mouth movements. For these reasons, the value of a team-based partnership with a school for the deaf cannot be understated. Fortunately, Howerton-Fox, Veyvoda, and Silvestri, as well as interpreters and other school personnel, were on site to identify ways in which Park could more effectively communicate with the students. Without the various areas of expertise, knowledge, practice, and experience represented by the three team members, this project would likely have had very different outcomes.

While partnerships between deaf schools and hearing artists can be challenging to execute, they can be of great value to deaf and hard of hearing students from across linguistic, cultural, and socioeconomic backgrounds. Over the course of our work, we not only saw the students improve their skills at breaking sentences, words, and stories into parts so that they could understand them more completely, we also saw transformations in their confidence and pride. Our students were excited at their growing ability to engage successfully with the movement curriculum.

Participation in the program also deepened the authors' understanding of how movement can be used as a metaphor to represent literacy skills. We learned about the challenges of partnering a hearing, non-signing artist with signing deaf students, and we were able to critically evaluate the role of a sign language interpreter in a movement-related curriculum. Finally, and most important, we saw the role that dance can play to transform and improve English language instruction for deaf and hard of hearing students.

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REGIONAL EARLY ACQUISITION OF LANGUAGE

The Southeast REAL Project is a federally funded collaboration between Gallaudet University's Laurent Clerc National Deaf Education Center and the Alabama Institute for Deaf and Blind.

Its mission is to support language acquisition to ensure each deaf or hard of hearing child is "school ready" with a foundation of language when they enter school. The REAL Project provides training, technical assistance, and resources for professionals involved in early hearing identification and early intervention services for deaf and hard of hearing children from birth to 3 and their families.

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Turning the Pages of Children's Literature: Dismantling Racial Inequities

By Millicent M. Musyoka, Hadeel Alawad, and Sulaiman Adeoye

Many deaf and hard of hearing children face significant challenges in language, literacy, social, and academic development. These challenges increase for deaf and hard of hearing children who are from culturally and linguistically diverse backgrounds (Cannon & Luckner, 2016). To address these challenges, philosophies, policies, and practices should support full inclusion. Deaf and hard of hearing children from ethnically, racially, and linguistically diverse backgrounds enrich many public school classrooms.

However, addressing inequities based on disability, race, or ethnicity is about more than placement. Questions still remain about teachers' practices, and few teacher preparation programs in the United States provide training on how to work with deaf and hard of hearing children from diverse racial, ethnic, and language backgrounds (Cannon & Luckner, 2016). Yet teachers need tools for addressing inequities and dismantling systemic racism, and effective tools may be found in children's literature.

Diversity Inclusion—Teaching to All

In deaf education, "diversity inclusion" has come to mean engaging and empowering students who come from marginalized communities through knowledge gleaned from curriculum content (Gay, 2018). In children's literature, children see themselves and their peers in the stories shared and discussed in class. When one group is over-represented—as has occurred historically in the case of White children in North America—systemic inequities occur. When children of color do not see themselves in literature, they feel marginalized, inferior, and even insignificant. The over-

Photos courtesy of Robin Williams Evans, Wayne Evans, and the Laurent Clerc National Deaf Education Center

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Left: When children of color and/or children with disabilities don't see themselves represented in literature, they can feel marginalized, inferior, and even insignificant. Using multicultural literature in the classroom helps students understand, respect, and accept the physical and cultural differences of their peers (Golos & Moses, 2013).

representation of one community and the near nonrepresentation of other communities in classroom materials is part of what is meant by systemic educational racism.

Teachers, whose goal is to promote racial and cultural equity, will find significant support through the use of multicultural children's literature (Hollander, 2004). Children's literature—material read to infants and read to and sometimes by young children—contains relatable characters, accurate language, and illustrations to support children's understanding. Multicultural literature features children from different racial and ethnic backgrounds (Kemple, Lee, & Harris, 2016). Use of multicultural literature can allow all teachers to promote equity and support restorative justice in their classrooms (Gopalakrishnan, 2011).

Promoting Diversity through Reading

As the demographics of classrooms change throughout the United States, inclusion of multicultural literature becomes especially desirable. According to the National Association for the Education of Young Children (2009), 44 percent of all children in American classrooms were from minority groups, and the number is expected to rise to 62 percent by 2050. The shift in the demographic composition of the student population doubly affects the deaf and

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Right: When deafness is portrayed from a socio-cultural perspective, deaf and hard of hearing children learn to recognize and value their Deaf identity, the Deaf community, and Deaf culture.

hard of hearing student population, a minority group within minority groups (Alfano, Radlinski, & García del Corro-Helbig, 2022; Musyoka, 2022). In fact, 55 percent of deaf and hard of hearing students attending educational programs in the United States are from diverse ethnic, linguistic, and cultural backgrounds (Gallaudet Research Institute, 2013).

The Council for Exceptional Children (2018) supports multicultural education, encouraging strategies that promote curricula programming that is responsive to diverse populations across multiple educational settings. In its mission statement regarding teacher education standards, the Council on Education of the Deaf (2020) emphasizes best practices that focus on current research and embraces diversity and multiculturalism. Yet Gay (2018) noted that approximately 70-95 percent of textbooks used in classrooms still overstate the importance of the cultures and contributions of White people, while the culture and contributions of people of color are not only minimized but, in many cases, omitted. The literature adopted and used in many schools and programs for deaf and hard of hearing children is probably not an exception. In fact, Musyoka and Adeoye (2021) found that this literature, too, was limited in diversity.

Further, individuals of color are under-represented among professional personnel. Teachers, pre-service deaf education teachers, resource specialists, and general education co-teachers are mostly individuals who are White; this means students of color may lack role models. Consequently, educational standards in deaf and hard of hearing education mandate the integration of diversity inclusion into classroom teaching practices (Cannon & Luckner, 2016).

Multicultural Literature: Enduring Benefit

The use of multicultural literature supports children's understanding and appreciation of culture and their development of self-image, self-esteem, and sense of purpose (Husband, 2019; Kemple, Lee, & Harris, 2016). Further, this literature helps students understand, respect, and accept the physical and cultural differences of their peers (Golos & Moses, 2013). Consequently, negative stereotypes—often fueled by ignorance, fear, or hatred—of minority groups may be addressed as children become more understanding, accepting, and respectful of individual differences (Gopalakrishnan, 2011; Husband, 2019). Additionally, exposure to different cultures through literature allows students to celebrate, honor, and respect differences in cultures—both of the characters in their text and of the individuals in their classrooms (Mandarani & Munir, 2021). Finally, reading literature that allows students from minority cultures, as well as students from majority cultures, to connect to their own lives may also accentuate their pleasure in reading, which is critical for lifelong learning (Mandarani & Munir, 2021).

Ideally, the cultural details not only enhance the narrative but also provide readers with an understanding of the culture in which the characters live.

Previous research has identified various reasons for bringing children's multicultural literature into the classroom (Mandarani & Munir, 2021; Musyoka & Adeoye, 2021):

- To allow diverse students to see themselves and get inspired by possible options in the future
- To assist students in understanding the lives of others and respecting the perspectives of diverse cultural groups
- To promote equity and social justice by modeling positive behavior and equal treatment toward diverse individuals that extends to the community
- To improve healthy interactions by overcoming stereotypes or biases in the classroom and community
- To develop a positive home-school link
- To support collaborative learning strategies

Diversity, Inclusion, and Deaf Literature

Musyoka, Adeoye, and Alawad (2019) found that diversity in literature for deaf and hard of hearing children in

elementary school—like that of literature for all children—is limited. Most studies show deaf and hard of hearing characters from linguistically and ethnically diverse backgrounds are neglected (Golos & Moses, 2013; Musyoka & Adeoye, 2021). Further, deaf and hard of hearing characters are portrayed too often from a medical view (i.e., enduring or overcoming a physical deficit), as opposed to a socio-cultural view (i.e., part of a vibrant culture and community of individuals with their own language and appropriate behaviors). Deaf and hard of hearing characters are portrayed as having disabilities as opposed to differences (Golos & Moses, 2013; Pajka-West, 2010). This misrepresentation can have far-reaching consequences, leading young deaf and hard of hearing children to devalue themselves and their communities.

On the other hand, when deafness is portrayed from a socio-cultural perspective, deaf and hard of hearing children learn to recognize and value their Deaf identity, the Deaf community, and Deaf culture. Musyoka and Adeoye (2021) encourage teachers of deaf and hard of hearing children to analyze their syllabi, instructional approaches, and materials to ensure they represent students from all cultural groups in their classrooms.

Criteria for Selection

Perhaps the critical criteria for selecting multicultural children's literature for the classroom involves the accuracy of both the text and the illustrations in reflecting the culture of the narrative, characters, dialogue, and values of the material (Harper & Brand, 2010; Husband, 2019). Ideally, the cultural details not

Children's Literature in the Classroom:

STRATEGIES THAT PROMOTE APPRECIATION OF DIVERSITY

Various strategies can be employed for effective interaction with multicultural children's literature. The strategies below focus on teaching before, during, and after reading multicultural children's literature.

BEFORE children begin interacting with the literature:

- Teachers evaluate and select literature that includes characters who are deaf, have disabilities, come from a variety of cultures, and ideally are representative of the students in their classroom.
- Teachers identify issues in the literature selected, and they and their students share their own experiences related to those issues.
- Teachers engage students in dialogue on related inclusivity.

DURING the interaction with the literature:

- Teachers guide students in various activities:
  - Discussing the pictures in the book
  - Reading the story
  - Retelling the story using signs or oral skills
  - Discussing the characters in the story
  - Engaging in dramatic play to identify changes in the characters' feelings
  - Role playing relationships or behaviors
  - Drawing or painting
  - Discussing related experiences
  - Discussing various multicultural issues, including race, ethnicity, language, gender, and socio-economic status
  - Clearing up any misconceptions or stereotypes
  - Discussing the characters in the story
  - Discussing how students' perceptions have changed
  - Discussing how students can best be supportive of peers
  - Providing opportunities to ask questions

AFTER the interaction with the literature:

- Teachers integrate activities such as role playing, bringing in guest speakers, and having students do artwork and compose poetry.
- Teachers, especially those working within thematic units, integrate the themes and issues from the book into other content areas.
- Teachers facilitate a library visit to collect books that build students' further knowledge of inclusion.
- Teachers engage students in a book-making project in which students create their own books based on the discussions held in class. Students also use their art skills to include images in the books.

only enhance the narrative but also provide readers with an understanding of the culture in which the characters live. When a single character from a minority culture appears within a narrative that includes mostly characters from the majority culture, the character representing the minority community should be an integral part of the story. Harper and Brand (2010) note that teachers need to pay attention to how authors interweave plot, characters, setting, theme, and point of view to create an age-appropriate story. Negative stereotypes should be rejected (Harper & Brand, 2010; Husband, 2019).

When characters have disabilities, there are specific criteria that are identified as necessary when selecting children's literature (Taylor et al., 2020):

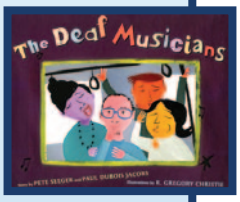
- Positive representation of the character
- Role of the character
- Emphasis on disabilities or what the character does
- Stereotyping abilities of a character
- Representations of interactions between disabled and non-disabled characters
- Portrayal of disability in a variety of settings
- Impact of disability on the plot

A teacher's selection of inclusive deaf children's literature should not focus only on narratives involving Deaf culture. As deaf and hard of hearing children in their classrooms may have additional disabilities and hail from different cultural backgrounds, teachers should ensure students acquire information about different Deaf cultural groups as well as about the Deaf community and Deaf culture. Since it may be challenging to find children's literature that is inclusive of characters who are deaf or hard of hearing, from different cultural groups, and/or who have disabilities, teachers need to be intentional as they compose their classroom collections.

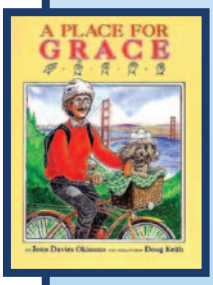
Children's Books with Deaf Characters of Color

Very few children's books include deaf and hard of hearing children of color. Below are some good ones:

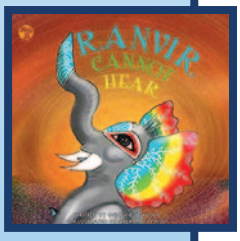
- ***The Brave Princess and Me*** by Kathy Kacer and Juliana Kolesova
- ***Cajun's Song*** by Darlene Toole
- ***The Deaf Musicians*** by Pete Seeger, Paul DuBois Jacobs, and R. Gregory Christie
- ***Dina the Deaf Dinosaur*** by Carole Addabbo



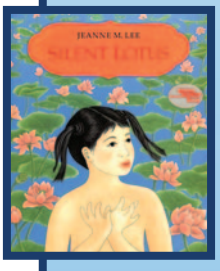
- ***Enriqué Speaks with His Hands*** by Benjamin Fudge
- ***Hands & Hearts*** by Donna Jo Napoli and Amy Bates
- ***I am Deaf*** by Jennifer Moore-Mallinos and Marta Fabrega
- ***I Can't Hear Like You (Talking It Through)*** by Althea
- ***I Have a Sister—My Sister is Deaf*** by Jeanne Whitehouse Peterson



- ***Lucia alto y claro/Lucy: Loud and Clear*** by Lucy Lavan and Beatriz Iglesias
- ***Max aprende la lengua de señas*** by Adria Fay Klein and Mernie Elizabeth Gallagher-Cole
- ***A Place for Grace*** by Jean Davies Okimoto and Doug Keith
- ***Ranvir Cannot Hear*** by Genevieve Yusuf and Shermain Philip



- ***River of Hands: Deaf Heritage Stories*** by Symara Bonner, Jason Brace, Kayla Bradford and the Canadian Cultural Society of the Deaf
- ***Secret Signs: Along the Underground Railroad*** by Anita Riggio



- ***Shay and Ivy: Beyond the Kingdom*** by Sheena McFeely and Casie Trace
- ***Silent Lotus*** by Jeanne M. Lee
- ***Smart Princess and Other Deaf Tales*** by Canadian Cultural Society of the Deaf
- ***Splish, Splat!*** by Alexis Domney and Alice Crawford

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Co-Leadership and Community Involvement

at the Clerc Center

By Marianne Belsky and Nicole Sutliffe

"It is only through dialogue, deep listening, and passionate disagreement that we find our way to something larger than a singular and isolated point of view."
– **Karen and Henry Kimsey-House,** ***Co-Active Leadership: Five Ways to Lead***

Deaf education in the United States began in 1817 with the bilingual co-leadership of Laurent Clerc and Thomas Hopkins Gallaudet. So, it just made sense when, in June 2018, Gallaudet University president Roberta J. Cordano officially appointed Marianne Belsky and Nicole Sutliffe as co-leaders of the Laurent Clerc National Deaf Education Center, located on the campus of Gallaudet University in Washington, D.C. Belsky is currently the Clerc Center's chief academic officer, and Sutliffe is its chief administrative officer.

Transformation in education—of practices, strategies, interpersonal and technological skills, etc.—is a must in order to meet the ever-evolving needs of students not only at the Clerc Center but across the country. However, as any leader will tell you, change isn't always easy.

Shared leadership has allowed us to bring our very different backgrounds and areas of expertise together to lead change in new ways. Additionally, as a bilingual, deaf/hearing team, we bring a unique perspective to our work and to the schools and programs with whom we collaborate. When we began our appointment at the Clerc Center, we recognized the need to address critical issues facing deaf education today: collaboration, leadership, equity, reimagination, and community (CLERC). As we look toward a new strategic plan for the Clerc Center, these themes remain critical both internally and for the nation.

Further, each of these themes contributes to the final Clerc Center mission: excellence in deaf education across the United States. The Clerc Center has been working on several innovative initiatives with the goal of supporting the exchange of ideas and highlighting the incredible work

Photos by Matthew Vita, Clerc Center

Marianne Belsky, chief academic officer, joined the Laurent Clerc National Deaf Education Center in 2014, bringing with her a wealth of experience in a variety of educational settings—public schools, residential programs for the deaf, and a program serving students with special needs. Before beginning her tenure as chief academic officer, she taught for 19 years, and she has served for 12 years as an administrator, including service as a K-12 principal and an instructional coach. Currently, she oversees the academic, athletic, and student life programs at Kendall Demonstration Elementary School and the Model Secondary School for the Deaf, is involved with content development with the Clerc Center's national programs, and serves on the Gallaudet University President's Executive Team.

Above: Reimagination and collaboration are two of the critical needs in deaf education today on which the Clerc Center's current strategic plan is focused.

being done in schools and programs serving deaf and hard of hearing students all over the country. While we strive to provide our Kendall Demonstration Elementary School (KDES) and Model Secondary School for the Deaf (MSSD) students with exemplary education, we know educators everywhere are striving to do the same. How can we showcase their work and share innovative and effective strategies? How can teachers in Maine and Louisiana connect on lesson plans for high school chemistry? Or a team of elementary school teachers and counselors collaborate on social-emotional learning for students in grades 3-5?

Our goal is to create both a virtual and physical space for educators nationwide to come together and exchange ideas—to have one place in which learning communities can gather to learn, engage, and share. Our new national learning and engagement portal will provide a virtual space for the exchange of ideas, professional development, learning cohorts, and on-demand learning for all aspects of education for deaf and hard of hearing children (birth-age 21). The portal will include resources from educators nationwide and will highlight the many talented educators and leaders in our community.

As we look toward this new academic year, we want to share some of the work underway here at the Clerc Center.

Collaboration

Southeast REAL Project in Collaboration with AIDB

The Southeast Regional Early Acquisition of Language (REAL) Project, a collaboration with the Alabama Institute for Deaf and Blind (AIDB), focuses on early language acquisition and works with families and service providers to ensure deaf and hard of hearing children are exposed to language early enough to help them succeed in life. This federally funded project began in 2019 and serves nine states in the southeastern United States: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi,

Nicole Sutliffe, chief administrative officer, has served in numerous capacities since joining the Laurent Clerc National Deaf Education Center in 2003, most recently serving as executive director from 2008-2016. Throughout her career, she has been engaged with leadership efforts across Gallaudet University, including co-chairing the University Planning and Budget Committee, serving as a member of the Crisis Leadership Team, and serving as a member of the Gallaudet University President's Executive Team since 2016. Sutliffe's background is in finance, business administration, and deaf studies. As chief administrative officer, Sutliffe oversees the administrative and operations arms of the Clerc Center as well as the Clerc Center's national programs and the Gallaudet University Regional Centers.

North Carolina, South Carolina, and Tennessee.

Training, technical assistance, and resources are being developed and provided to early intervention professionals who work with parents and caregivers of deaf and hard of hearing babies from birth to 3. Consideration is given to the experience and knowledge of the professionals related to early language acquisition for deaf and hard of hearing children when creating the materials. Some of the projects include, but are not limited to, the creation of bilingual story sharing videos for the families, creation of early acquisition of language curriculum materials for parents and caregivers, and support for language planning in the home of the child.

The Clerc Center has also recently relocated the Gallaudet University Regional Center (GURC) for the Southern region to AIDB to create a seamless transition from early intervention services to the world of K-12 education. As families "graduate" from the REAL program, we can provide continued learning through the work of the GURC as their child enters school. The GURC will also provide professional development and resources to professionals working with deaf, hard of hearing, and deafblind students in this region.

Leadership

School Transformation and Leadership Team Development

The Clerc Center is building on our school transformation initiative that began just before the COVID-19 pandemic closed our schools. We are currently partnering with several schools to begin transformation of their program, or a component of their program. At the schools' request, the Clerc Center observed programs and developed action plans and training recommendations for transformation. The Clerc Center will provide training

Above: Like students across the United States, the Clerc Center has had to reimagine the delivery of quality instruction to our students in a virtual world. **Right:** As a part of transformation happening throughout the Clerc Center, teachers, staff, and administrators participate in workshops and training.

both live and online through the new portal to build an ongoing support network for lasting change. For one program, this partnership will be a transformation from a Total Communication program to a truly bilingual program; for another, change was needed in the Student Life program to develop robust and equitable programs for students after academic hours. These transformations are true partnerships between the Clerc Center and school leaders, teachers, and state-level professionals.

The Clerc Center has also developed an 11-module leadership team training series designed to provide training on critical leadership concepts, including

Building Strong Teams, Leadership and Influence, The Art of Conversation, and Continuous Improvement Planning. Through onsite sessions and virtual cohorts, this training series will work with both new and seasoned leadership teams to build their shared vision and leadership skills. By working with teams, we can build not only strong individual leaders but also leadership depth and breadth within programs.

Equity
Meeting Demands for Social Change/Building a National Library of Resources

In the midst of the pandemic, the nation also faced a racial reckoning and demands for social change. This helped accelerate our continued work of envisioning and building an equitable organization both for our students and our employees. Through continued dialogue and daily change, we aim to create both short- and long-term impact for current and future students, teachers, and staff.

There are many teachers in programs all across the country doing excellent work with students on many areas of equity education—from reviewing curriculum for historical accuracy, to providing brave spaces for conversation about race, to looking at the rights and contributions of the LGBTQIA+ community. The Clerc Center aims to create an online library of resources for teachers, school professionals, leaders, and families on these critical topics. As we build this library, we will be reaching out for recommendations of teachers doing extraordinary work in this area of expertise.

Reimagination
Meeting Needs During a Worldwide Pandemic

In March 2020, the pandemic hit and we, like all of you, had to immediately shift our focus to continue to meet the needs of our KDES and MSSD students. Like schools across the country, we had to reimagine the delivery of quality instruction to our students in a virtual world. We, like you, watched many tutorials on various new-to-us technologies, and none of these tutorials considered the bilingual classroom or the bilingual learner. Resources were being released every day for teachers in general education environments, but our teachers—and teachers all over the country—had to innovate to translate these tools to work in a bilingual, visual environment. This further emphasized the need for a central location for these types of resources and tools. Our new national learning and engagement portal will include resources on creating bilingual environments in the most common learning management systems as well as tutorials on apps and technology that benefit bilingual learners.

We have all grown our technology skills in incredible ways over the last two years. How can we, as an educational community, tap this growth to evolve the approach to teaching deaf and hard of hearing students? What can the students themselves teach us about the world of technology and its impact on their learning? We have already changed—quickly and substantially—yet we know this is only the beginning.

Community
Maintaining a National Focus in the Midst of Change

What we have learned through our conversations with leaders in a wide variety of educational environments, with teachers in classrooms, and with students and families themselves is that we all desire true excellence in education for deaf and hard of hearing students. By creating communities—both virtually and face to face—we can transform the educational experience and outcomes for our students.

We will be reaching out, and we hope you will join us in these efforts. Together, real change is possible.

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Social-Emotional Learning:

How Can We Best Support Deaf Adolescents?

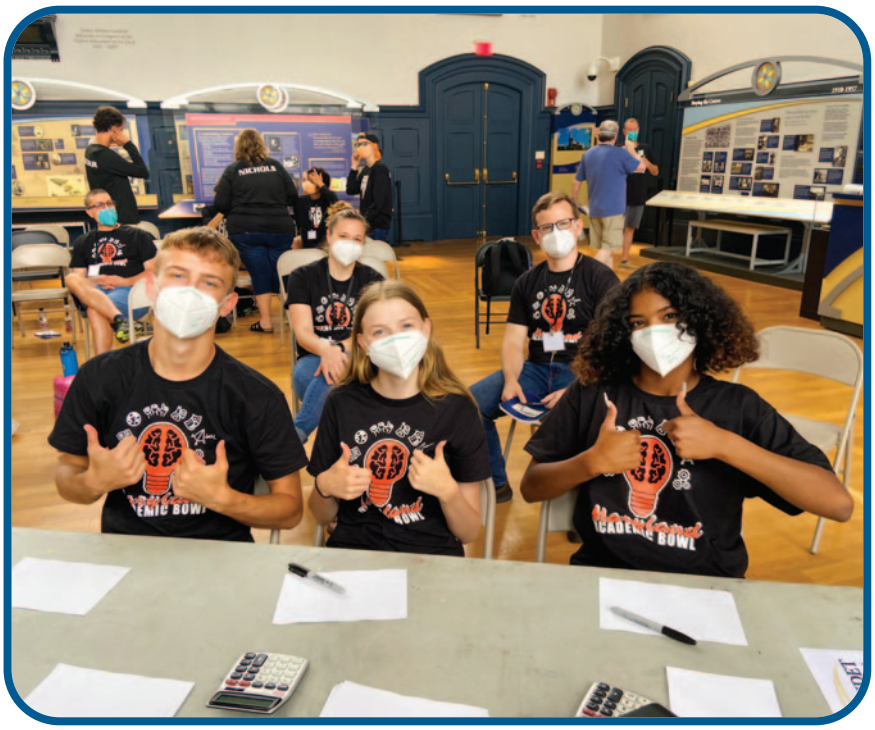
By Melissa Herzig and Carly Leannah

When a teacher at a residential school for deaf and hard of hearing students returned to in-person instruction after a year and a half of remote learning due to the Covid-19 pandemic, she found her students distracted and difficult to engage. "The students just prefer to converse with friends or create mischief," she said. "It feels like I'm spending more time keeping them in line than teaching them."

The lament above was relayed to co-author Carly Leannah when she interviewed educators and staff about their experiences with deaf and hard of hearing students returning to in-person instruction after extended school closures. Lockdown measures implemented to slow the spread of COVID-19 (e.g., social distancing, remote learning, canceled extracurricular activities, restrictions from in-person visits with friends and extended family) created social isolation and loneliness—and that had a significant impact on adolescents' well-being and mental health. More than a third of high school students reported that they experienced poor mental health during the pandemic, and 44 percent reported feeling sad or hopeless (Centers for Disease Control and Prevention, 2021).

This impact was even more significant for deaf, hard of hearing, and disabled students: 87 percent of students with disabilities reported feeling that isolation was a main cause of stress (Williams, 2021). Deaf adolescents, facing communication barriers, may have experienced even more isolation and thus more stress than their peers. Behaviors observed by the teacher illustrate what occurs when this happens

Photos courtesy of Sara Lee Herzig and Donna Frank



Left: Social-emotional learning helps students develop problem-solving and communication skills and understanding, that will help them embrace diversity and build healthy relationships.

CREDIT: SARA LEE HERZIG

and students' social-emotional needs are not addressed. The behaviors highlight the importance of incorporating social-emotional learning into education, especially for adolescents and, even more important, for adolescents who are deaf or hard of hearing. Social-emotional learning is a process through which students develop a skill set that includes knowledge, skills, and attitudes that allow them to develop healthy identities, regulate emotions, feel and show empathy, and make responsible decisions (CASEL, 2020). There are five core competencies for social-emotional learning: developing self-awareness, self-management, responsible decision making, relationship skills, and social awareness (CASEL, 2020). When teens learn to recognize their emotions and develop good communications skills, they are better able to navigate through conflicts. This, in turn, leads to improved academic performance, fewer conflicts with others, and more involvement with school and community.

The Adolescent Brain
No Longer Child, Not Yet Adult

Social-emotional learning is important for adolescents because adolescence is a unique time of brain growth, and adolescents rely heavily on peer connections for social and emotional support (Whitman & Kellcher, 2016). While negative mental health consequences developed among adolescents in response to the stress of COVID-19, adolescents who felt socially connected were protected (Magson et al., 2021). For adolescents who are deaf or hard of hearing, the struggle with communication with families and peers due to lack of full language access may have provided an additional lack of connection and source of stress (Hall et al., 2017). Further, early access to family and peer communication, also protective factors against mental health distress, may have been missing for these students (Fellinger, Holzinger, & Pollard 2012).

Adolescence is a time during which teens

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The authors welcome questions and comments about this article at *Melissa.Herzig@gallaudet.edu* and *Carly.Leannah@gallaudet.edu,* respectively.

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Above: Early access to family and peer communication is a protective factor against mental health issues. **Below:** When adolescents are able to socialize with their peers, it helps to ease loneliness and stress and to reduce depression.

explore their identity, trying to understand who they are and what they want to be. Isolation during the pandemic (whether due to distance caused by geography or due to distance caused by families and friends who did not provide access to communication) impacted teens' sense of identity (Walters & Knoors, 2008; Leigh, 2009). Identity depends on teens' attitudes about themselves and how they think others view them as deaf or hard of hearing individuals. This, in turn, impacts teens' ability to interact with others because it is during this period when they are more prone to self-consciousness and are sensitive to the influence of their peers and chemical changes in the brain (Sebastian et al., 2008).

Further, all students have an attitude toward learning—and the attitude, known as an *affective filter*, is critical (Krashen, 1992). When students feel safe, self-confident, motivated, and free from anxiety, affective filters are low and support learning. When students feel anxious, when their comprehension is limited, when they are self-conscious about speaking or about their grammar or choice of words, affective filters are high and inhibit learning. As negative experiences build on each other, the affective filter becomes stronger and more negative. By the time students who are deaf or hard of hearing reach adolescence, they may have had so many negative experiences that their affective filters inhibit learning, which is already made more difficult by their unmet communication needs.

Language and Communication Ever More Critical

Language is best developed through positive social experiences based primarily in interactions with children's caretakers. For this reason, parental communication skills are vital. In fact, the ability of parents to communicate with their young deaf and hard of hearing children is even more significant for language attainment and academic performance than parental involvement (Calderon, 2000). Parents do not need to be native or even fluent signers; they just need to know enough sign language to communicate with their child (Allen, 2015).

Language and communication have everyday effects on deaf and hard of hearing adolescents as learning scenarios become more complex and they work to develop a sense of belonging, build relationships with others, and develop a healthy sense of identity and self-esteem. Social-emotional learning and language learning are so related that they are almost indistinguishable. When students increase their language proficiency, they also undergo social-emotional growth, and when students are involved with social-emotional learning, they increase their language proficiency (Spencer & Koester, 2015).

Even those students whose language competency is high, who are succeeding—or at least getting by—academically in public school face the daily stress of trying to fit in while they focus on communication through interpreters and struggle with making friends during breaks or lunchtime. These adolescents find themselves unable to develop the sense of belonging that alleviates stress and the barriers of building relations (Oliva & Lytle, 2014). Poor social-emotional skills can lead to social rejection and an increased risk of developing mental health issues that may continue throughout adulthood (Luckner & Movahedazarhouligh, 2019). Unsupported,

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Right: Adolescents are able to build relationships, are more confident, and have better self-esteem if they learn to recognize their emotions and develop good communications skills.

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adolescents are more vulnerable to anxiety and depression (Ellis & Zarbatany, 2017).

Deaf and hard of hearing adolescents show gains in self-esteem and self-confidence when they have friends who are like them. Additionally, direct communication with deaf and hard of hearing peers and adults is important to learning and social-emotional development (Lytle & Oliva, 2016). Finding activities after school, on weekends, or during the summer with other deaf and hard of hearing peers helps develop those friendships and feelings of belonging. Social media may be helpful in staying connected and in socializing when they are not together during evenings or weekends (and especially during lockdowns or when students are quarantined).

What Teachers Can Do

Teachers need to be aware that more than cognitive factors affect a student's motivation to learn. Fortunately, a systematic review revealed that interventions in social-emotional learning can enhance adolescents' social and emotional skills and reduce symptoms of depression and anxiety in the short term (Clarke et al., 2021). Teachers can foster an environment of communication and respect for others and set the tone for positive interactions (CASEL, 2012). They can help students develop relationships with peers and adults, and they can support students as they communicate thoughts and feelings through both verbal and nonverbal means. Teachers can support opportunities for cooperation and collaboration, share feedback, solve problems, and resolve conflicts with their students.

Motivation is important, and teachers can foster a combination of factors to motivate students. One important factor is understanding and responding to students' cultural and linguistic backgrounds. Meltzer and Hamann (2004) have shown that adolescents' cultural identities shape how they perceive the world around them. The more teachers know about the cultural backgrounds of students, including their values, beliefs, language, and behavioral expectations, the more students can feel respected and connected. The more teachers incorporate the cultural and linguistic backgrounds of their students into their lessons, the more students are motivated to learn (Meltzer & Hamann, 2004).

Understanding the social-emotional world of adolescents who are deaf or hard of hearing means recognizing the special skills and special needs of students who are neither children nor adults. The vulnerability of the still-growing brain and the lack of early communication, as well as the possible lack of communication day by day, requires teachers to exert a special understanding. This understanding can lead to social-emotional learning, and it can be the basis on which academic learning rests. Teachers can incorporate social-emotional learning into their classrooms in various ways, including through the use of technology or apps. (See "Intervention Strategies: Tips for Teachers and Parents" on pg. 40.)

What Parents and Caregivers Can Do

Building relationships through direct and clear communication builds trust and reduces frustration and stress. Sign language may be critical. Use of sign language is tied with higher self-esteem, and higher self-esteem correlates with higher reading scores (Leigh at al., 2009). Direct communication is vital for learning and social-emotional support. Parents and caregivers should take the time to seek out and promote relationships between themselves and their deaf or hard of hearing child outside of the home. Building support networks with parents and caregivers of deaf and hard of hearing children helps participating parents and caregivers to become more comfortable and confident with their communication skills and can lead to a stronger connection with their deaf or hard of hearing child (Oliva & Lytle, 2016).

Collaboration—Home and School

While social-emotional learning is critical in response to the unique situation of the pandemic, it should also become part of the curriculum and be implemented system-wide. Educators during classes, staff after school, and families at home should collaborate in bringing social-emotional learning to their children. Together, educators, staff, and families can work to ensure social-emotional learning occurs and our deaf and hard of hearing students are ready to learn academically.

Intervention Strategies: Tips for Teachers and Parents

By Carly Leannah and Melissa Herzig

TIPS FOR TEACHERS

- **Offer explicit social-emotional learning instruction**. Deaf and hard of hearing students—sometimes due to language deprivation that begins early in life and sometimes continues throughout every school day—may need to be taught how to communicate their needs. **Asset Education** (*www.asset-edu.org*) is a resource that provides a curriculum to learn about resiliency and responding to stress. **Inspire: Teaching and Learning** (*www.harmonysel.org/ sel-resource-hub/*) is also very helpful; it offers free resources and professional development training and webinars about social-emotional learning and instruction in Pre-K-12 classrooms.
- **Promote social learning activities**. *Part of the Group: Games that Increase Social Understanding* is a book with great activities compiled by researchers that focuses on increasing social learning. It can be purchased at *www.dawnsign.com*.
- **Use sign language to empower students to take ownership of their learning**. When new content is introduced and discussed in academic ASL, students feel more connected. They can visualize new concepts more easily, and teachers are more able to offer supportive scaffolding for learning and connecting content in English. Find opportunities for teachable moments to discuss idioms, metaphors, world events, or characters' behavior in both ASL and English.
- **Utilize social media**. View and discuss news via ASL. This activity supports social-emotional development. Suggested sites: Daily Moth at *www.youtube.com/c/thedailymoth* and DPAN TV at *https://dpan.tv/videos/*.
- **Build connections with families**. These connections, in addition to establishing important personal relationships and connections, can help enhance the understanding of students' cultural experiences and support student learning. When teachers reach out personally, parents and caregivers are more motivated to participate in the school community.
- **Utilize social-emotional learning apps and websites.** These apps will help students recognize the way in which they perceive themselves and their place in society as well as learn how to be nice to each other. Examples include:
    - **Teen Career Path** (*www.brightenlearning.com/teen-career-path/*)—includes several interactive, animated webisodes that combine social skills development and career exploration and life readiness.
    - **Middle School Confidential** (*www.middleschoolconfidential.com/apps.html*)—a digital, interactive graphic novel that includes themes such as bullying, self-image, friendship, and critical thinking.

TIPS FOR PARENTS

- **Promote visual communication at home:**
    - Visit *www.vl2family.org* to learn research-based information about ASL and bilingualism as well as to find support available in your state.
    - Seek out ASL classes from local community centers, colleges, universities, and public libraries.
    - Sign up for classes at Gallaudet's ASL Connect (*www.gallaudet.edu/asl-connect*). Classes are entirely online and self-paced, and ASL Connect also has a Signing Pals mentorship program.
- **Establish a support network of parents and caregivers**. Set up a place and time for your child to connect with deaf and hard of hearing peers or mentors. This may also provide children with a safe environment in which they can learn and talk about issues and perspectives. It will help to provide them with a positive self-image and boost self-esteem.
- **Promote peer socialization**. An essential part of identity development is peer socialization with other deaf and hard of hearing individuals. Look up after-school or summer deaf camps and programs. Gallaudet lists several on its Youth Programs website (*www.gallaudet.edu/youth-programs*). The nearest school for the deaf may also have information about camps and after-school programs.
- **Utilize resources for self-advocacy and accessibility.** The National Deaf Center on Postsecondary Outcomes (*www.nationaldeafcenter.org*) offers great resources on family support for deaf and hard of hearing teens.
- **Stay connected via technology.** There are several features in your child's phone, laptop, and desktop computer that your child can use to stay connected to peers and other individuals (e.g., email, texting, WhatsApp). To converse in sign language via camera or video, your child can use FaceTime, WhatsApp, Marco Polo, or Snapchat. Video relay services are also available that allow your child to communicate with hearing individuals in real-time through an interpreter or to talk face to face with other deaf or hard of hearing individuals who have videoconferencing equipment.

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Flipped Classroom Pedagogy
in ASL Mathematics

By Keith Westhoelter

Keith Westhoelter, MS, is a math teacher at the Model Secondary School for the Deaf (MSSD) on the campus of Gallaudet University in Washington, D.C. He earned his master's degree in deaf education from Western Maryland College (now McDaniel College) and his bachelor's degree in mathematics from Gallaudet University. Prior to coming to MSSD, Westhoelter was a teacher at the Indiana School for the Deaf. He welcomes questions and comments about this article at *Keith.Westhoelter@gallaudet.edu*.

Many of today's teachers have successfully incorporated technology into their classrooms through digitally based approaches to student learning. However, the flipped classroom pedagogy can provide for rich experiences in the classroom as the students learn lessons at their own pace, leaving the teachers free to create fun, hands-on lessons in the classroom.

The flipped classroom model has been around since the early 2000s. This model is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment in which the educator guides students as they apply concepts and engage creatively in the subject matter (Flipped Learning Network, 2014).

Although this instructional model has been in practice in some disciplines for many years, its recent surge in adoption is due, in part, to the availability of new technologies such as easy-to-learn screencasting software (a computer program for recording videos of lectures) and perhaps in part due to high-profile media stories, such as "Turning Education Upside Down" in *The New York Times* (Rosenberg, 2013) and "How 'Flipping' the Classroom Can Improve the Traditional Lecture" in *The Chronicle of Higher Education* (Berrett, 2012).

I began using this flipped classroom model around 2016 at the school in which I previously taught due to the enhancement of current technology equipment and the school's availability of it. While teaching multiple math classes to deaf and hard of hearing high school students, I needed to manage to keep up with all the paperwork, maintain an organized classroom, track students' various math goals annually, ensure fair distribution of materials and resources to students, and deliver high-quality education. After utilizing the flipped classroom approach, I could see that the students were better understanding fundamental math concepts—numbers, equations, computations, and algorithms as well as isolated facts and procedures. Additionally, the students' assessment scores displayed an increase, and their knowledge in their targeted math areas of weakness significantly improved. I was optimistic that the approach was successful, and I once again applied it to my classroom when I began teaching math at the

Photos by Matthew Vita and courtesy of Keith Westhoelter

Left: Using the flipped learning approach in his classroom allows Westhoelter to spend more time with students who are struggling or who have questions while allowing the more advanced students the freedom to work ahead.

Model Secondary School for the Deaf. With this flipped learning approach, the methodology helps me prioritize active learning during class time by assigning students videos in American Sign Language (ASL) to be viewed via iPads provided by the school at home, in the classroom, or outside of class.

I use this approach in my classroom to spend more time individually with students who are struggling while allowing the more advanced students the freedom to work ahead. It has wide-ranging differentiation by the level of need and capability instruction built into the math curriculum at every opportunity. There is increased opportunity for feedback from the students to help to make this flipped classroom model successful. Since class time can be spent doing hands-on work and thinking critically, I can easily spot knowledge gaps and work to address them rather than wait until test day to see how much the students understand.

Benefits of the Flipped Classroom Model

The most prominent benefit to adopting the flipped learning method is that the deaf and hard of hearing students are visual learners who rely on ASL for instruction. The students can learn more deeply and retain information better by watching the ASL videos at their own pace in a learning management system (LMS) such as Google Classroom or Schoology. They have more ownership over the learning process and receive more frequent feedback. The students can gain a complete understanding of the lessons. Additionally, flipped learning offers more opportunities to interact and learn from other students. With the math teachers' support and guidance, they solve problems and apply new concepts. It creates a more robust learning community in the classroom.

Another considerable benefit of this model is that math teachers save time in the classroom. They do not have to repeat the same lessons many times in one class period, which can be emotionally draining.

The flipped classroom reframes the role of math teachers and students, transforming student-driven learning in the classroom. It makes it more efficient for visual learners, who learn at their own pace, while making class time more enjoyable, productive, and actively

Tips for Creating a Flipped Classroom ASL Video

The process that we followed in our transition planning proved to be effective. The steps below may be helpful to others who wish to use data for planning transition in their area. To pursue effective transition planning through collaboration, we:

1. Use an iPad (minimum 64GB) with a tripod.
2. Use SMART Board software or a whiteboard.
3. Record up to five minutes at maximum.
4. Download to iMovies - basic to edit.
5. In iMovies, add a title for up to five seconds and change the video's speed if necessary.
6. Upload the file to Google Drive or OneDrive to save it.
7. Compress the file size tremendously by converting from an iMovies file to a MP4 file.
8. Insert a link or attach the file to Google Classroom or Schoology in the learning management system.

engaging for both the students and teachers. Many teachers feel that it is at the forefront of modern education today for our students.

Distance Learning

Distance learning is especially challenging for students who have to deal with learning disabilities, technology access, guidance, economic hardship, lack of motivation, Zoom fatigue, and unstable home environments. Using pre-recorded ASL videos helps the students with math lessons if and only if the students are skilled in navigating the LMS. The key to a flipped classroom's success is the students' feedback to meet their needs in general. Teachers can modify the lessons by delivering clear, explicit ASL presentations. However, on-campus, face-to-face instruction is the best educational environment for students. Additionally, it is the best social environment for students. Creating flipped classrooms is best in the school classroom setting due to technology availability and convenience.

Above: With the flipped learning classroom model, students have more ownership over the learning process and receive more frequent feedback.

Going Forward

Within the next few years, I intend to establish a tutorial library of math videos in ASL as a classroom supplement for our deaf and hard of hearing students. They will have access to the videos in a centralized place, which will help them develop skill mastery independently. The students will be able to use the videos to explain math concepts further or to study independently for standardized assessments. I have seen several websites with math resources and tips, such as the Khan Academy, Varsity Tutor, and other math YouTube resources, which are available to any hearing person. My goal is to build something similar for visual learners—deaf and hard of hearing students, specifically—so they have a more equitable opportunity to learn math.

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Amy Szarkowski, PhD, a psychologist, is director of The Institute (*https://cccbsd.org/programs/the-institute/*) and director of The Clinic (*https://cccbsd.org/programs/the-clinic/*), both at The Children's Center for Communication/ Beverly School for the Deaf. She also serves on the LEND (Leadership Education in Neurodevelopmental and Related Disabilities, *www.lendboston.org*) faculty at Boston Children's Hospital and holds an academic appointment (part time) as assistant professor in the Department of Psychiatry at Harvard Medical School. Szarkowski is a member of the Core Team for the Fostering Joy Project as well as lead for the professionals arm of Fostering Joy.

Defiant Joy:

The Parent-Professional Collaboration Behind the Fostering Joy Movement

By Amy Szarkowski and Candace Lindow-Davies

Fostering Joy is a movement that began in 2017 to support the intentional practice of looking for and encouraging joyful moments between families and/or caregivers and their children who are deaf or hard of hearing. The aim of Fostering Joy is to spark collaboration among families, caregivers, professionals, and adults who are deaf or hard of hearing to encourage a collective shift in focus from mitigating the challenges of raising and supporting deaf and hard of hearing children to celebrating these children, their growth, and the many positive impacts they have on our lives.

Fostering Joy does not deny challenges that can be involved in raising and supporting deaf and hard of hearing children, nor does it ignore the unique needs of these children and their families. Rather, this movement recognizes these challenges and encourages addressing them directly. It promotes the reframing of experiences to intentionally find and foster moments of joy, to celebrate the connections and affections that children who are deaf or hard of hearing bring to those in their lives, and to find opportunities to savor the good moments amidst the challenges.

As the Fostering Joy movement has grown, families from a variety of backgrounds who are raising children with diverse needs—including those with health challenges—have found comfort and fellowship. For example, Joanne Nelson, a Wisconsin mother of two deaf children who have rare, complex medical needs, shared, "I think it's a conscious choice on how you choose to see challenges and life, no matter what happens to you … to me, love, appreciation, and joy are the only choices that make life worth living."

Photos courtesy of Amy Szarkowski and Candace Lindow-Davies

Left: At the Nevada Hands & Voices "Winter Wonderland" party in Las Vegas in December 2021—the first in-person event in almost two years—families had the chance to share what brings them joy while waiting in line to have pictures with Signing Santa. **Below:** Cora Shahid and family share what brings them joy.

History of the Movement

Following a presentation at a conference that emphasized the need for caregivers to be educators and language role models for their deaf and hard of hearing children, several parent leaders and professionals gathered to discuss the intense pressure placed on families. While acknowledging the vital role that caregivers have in their child's development, the group also shared concern for the development of the family-child bond, the well-being of the child and the family, and the impact that a constant focus within families on "educating and ensuring language input" could have on a child's social-emotional growth. Those parent leaders and professionals shared a desire for families to recognize and celebrate the gifts of their children and to be "present in the moment" to witness the magic that occurs in the everyday interactions between caregivers and their children. That initial set of parent leaders and professionals continued to contemplate how different things might be if families were encouraged to hold on to those precious moments. Those involved in these initial conversations became the "Core Team." Their ideas and desire to shift the focus for families with deaf and hard of hearing children gave birth to this collaborative project, Fostering Joy.

A Community of Joy Ambassadors

The Fostering Joy founders came from diverse backgrounds, but they were still a small group. As this idea grew into a movement, it became clear that other perspectives not yet at the table were absolutely necessary. The project organically expanded to include even more diverse perspectives from parents in different geographic locations and from fathers, to add more deaf adults with a variety of lived experiences as well as additional professionals in fields such as deaf education and healthcare.

Candace Lindow-Davies is the mother of an adult son who is deaf with additional health concerns. For 16+ years, she developed and directed parent support services for Minnesota Hands & Voices. In May 2017, she became the director of outreach for Hands & Voices Headquarters (*www.handsandvoices.org*) and has served on the Core Management Team of the Family Leadership in Language and Learning Center (FL3, *www.handsandvoices.org/fl3*). She is a Core Team member and lead for the family arm of the Fostering Joy Project.

The authors, on behalf of the Fostering Joy Core Team, welcome questions and comments about this article at *amyszarkowski@cccbsd.org* and *candace@handsandvoices.org*, respectively.

Above: The Hands & Voices *Fostering Joy Reflective Journal* is a great way to capture precious moments of raising a deaf or hard of hearing child.

"I was invited to a Fostering Joy presentation, and it confirmed that our kids may have a diagnosis, they are going to have a lot more struggles, but our kids are beautiful, and they are what makes us our people. This is a different joy, something that once you get it, it doesn't diminish or fade; it manifests, and you start looking at things differently."

~ **Aja Gohier-Singnakhone,**
Hawaii parent of a deaf child

Desiring to extend the impact of focusing on joy beyond the Core Team, Fostering Joy embraced the idea of "Joy Ambassadors." These are family members, caregivers, adults who are deaf or hard of hearing, and professionals who express a desire to center their experiences in raising and supporting deaf and hard of hearing children in joy.

Joy Ambassadors form a community of people finding and celebrating common ground in cherishing children who are deaf or hard of hearing and respecting the many unique and positive ways that they impact their families and the world. Joy Ambassadors, despite the many demands on their time, attention, and resources—and despite the challenges of this unique moment in history—consciously, defiantly **choose joy**. At conferences and through presentations, the Fostering Joy Core Team has encouraged others to embrace being a Joy Ambassador, whether through making an individual resolution to recognize "joy moments" or by making a commitment to implementing joy in larger ways.

For Joy Ambassadors who wish to invest their time, energy, and ideas into growing this movement, Fostering Joy has working groups to extend the reach of Fostering Joy and provide additional opportunities for individuals interested in this movement to become involved in a meaningful way.

Fostering Joy strives to be inclusive and welcoming. Across the Core Team and the working groups, Fostering Joy includes individuals with diverse lived experiences, including those with children who experience "different ways of being deaf" (e.g., Deaf, deaf, hard of hearing) and family members or caregivers of children who are deaf or hard of hearing with health challenges. It also includes individuals who represent different geographic locations and cultural backgrounds. Adults who are deaf or hard of hearing and who also represent "different ways of being deaf" have been invited to join and offer valuable insights from their own lives as well as their work supporting families and caregivers. Professionals from a variety of disciplines (e.g., early intervention, psychology, deaf education, speech-language communication, social work, audiology) have committed to implementing strategies for promoting joy in their work.

As Fostering Joy has grown, there has been an increased awareness of the need for resources and support for the movement. While the collaboration among those supporting children who

Below: Fostering Joy Core Team members … front row: Cora Shahid, Rashaun Davis, Candace Lindow-Davies, Karen Putz, Stephanie Olson; back row: Jennifer Clark, Nicole Hutchinson, Janet DesGeorges, and Beth Jones. (Missing: Amy Szarkowski).

Above and right: Aja Gohier-Singnakhone, from Hawaii, journals about the joy her daughter Ke'ele brings; the family enjoys spending time together on fun outings, such as the one to Disneyland.

are deaf or hard of hearing remains central to the mission of the group, there are now two "arms" of Fostering Joy to better meet the unique needs of families/caregivers and professionals.

Growing the Movement for Families

Hands & Voices Headquarters now serves as the home for Fostering Joy: Families. Families and caregivers can access a website (*www.handsandvoices.org/resources/fostering-joy.htm*) to download information and resources as well as to reach out to the Fostering Joy Core Team. One resource is a *Fostering Joy Family Tip Sheet*, developed based on ideas offered by families to help other families and caregivers with children who are deaf or hard of hearing to create joyful moments. To date, these tips are available in 11 languages. There is also a *Fostering Joy* video (*https://vimeo.com/463926086*) composed of submissions from families sharing their joyful reflections about their children. There is *Fostering Joy: A Reflective Journal** (*www.handsandvoices.org/ resources/fostering-joy/journal.html*), available for purchase in English and Spanish, that includes prompts to help families and caregivers capture joyful memories. Soon, a *Fostering Joy Journal for Kids* will also be available. An important aspect of building the Fostering Joy community has been the creation of a closed Fostering Joy–Families of Deaf and Hard of Hearing Children Facebook group (*https://m.facebook.com/groups/DHHFosteringJoy/*). For some, this group provides a refuge from the stressors of daily life and a place to celebrate the successes of raising a deaf or hard of hearing child.

Right: Amy Szarkowski, Beth Jones, and Jennifer Clark present about Fostering Joy on a National Hearing Assessment and Management webinar in December 2021.

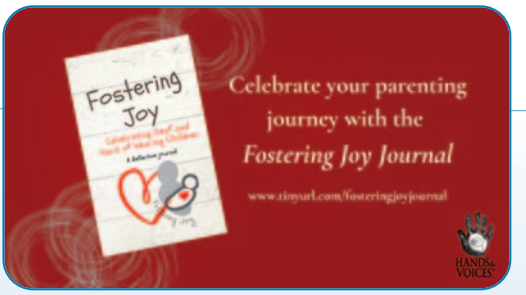
Growing the Movement for Professionals

The Institute at The Children's Center for Communication/Beverly School for the Deaf serves as the digital home for Fostering Joy: Professionals (*https://cccbsd.org/programs/institute/fostering-joy-professionals/*). The initial focus of the movement was on helping families to foster joy; yet professionals who support children who are deaf or hard of hearing and their families and caregivers can also benefit from mindfully focusing on incorporating joy into their lives and into their work. On the website, professionals can freely access a *Joyful Prompts & Activities: Ideas for Working with Families* tip sheet and *Joy in Work: A Weekly Worksheet for Reflection*. The community of professionals interested in centering on joy is growing with the help of the Fostering Joy-Professionals Facebook group (*https://m.facebook.com/groups/dhhfosteringjoyprof/*). As with families and caregivers, professionals appreciate the shift in focus to center on joy. Professionals have commented, "Recently we have seen an explosion of language growth in some kiddos. That gives me so much joy!" and "A parent that I worked with when her son was 15 months old reached out to check in and let me know he is in his first year of college and loving it!"

Looking Toward the Future

Separately and collectively, groups of families, caregivers, adults who are deaf or hard of hearing, and professionals are drawing from the tenets of Fostering Joy and making them their own, implementing activities within their spheres of influence. These include offering parent workshops, writing joy-focused articles for newsletters, hosting book groups exploring joy as a topic, anointing May as Fostering Joy Month (in one creative state), hosting family retreats that center on growing joy, and providing tools and ideas for families to foster joy at home. Once a mere idea of shifting away from the "problem-focused" approaches that many professionals were using in their work with families and caregivers, Fostering Joy has been adopted as a motto for interacting with families and caregivers and a way of intentionally engaging with children who are deaf or hard of hearing. We look forward to seeing where the movement will take us!

**Authors' note:* Fostering Joy: A Reflective Journal *is available for $14.95 each or with a discount for bulk orders (6+ copies); all other Fostering Joy resources are free of charge.*



Learn More About Fostering Joy

To learn more about the Fostering Joy movement, including its mission and roots, how to get involved, and its Core Team, visit *www.handsandvoices.org/resources/fostering-joy.htm*. The *Fostering Joy Family Tip Sheet* is also available on this website for free downloading in ASL, English, French, Hmong, Italian, Japanese, Mandarin, Somali, Spanish, Thai, and Urdu.

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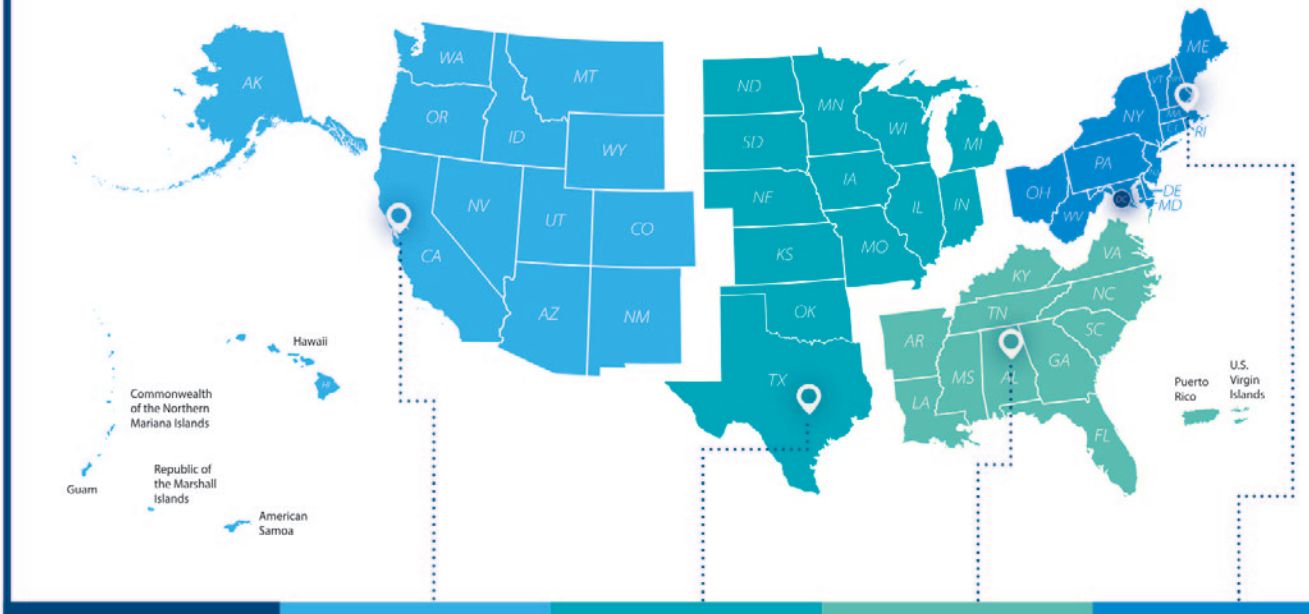

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Decide, Act, Believe: Teaching Self-Determination Skills

By Kaitlyn Millen, Carrie Lou Bloom, and Karrie A. Shogren

Kaitlyn Millen, PhD, is an Individualized Education Program (IEP) consultant working with teachers, schools, and districts to support professionals with writing compliant, data-driven IEPs. She has worked in the field of deaf education for 18 years, and she completed her doctoral degree in special education at the University of Northern Colorado focused on students who are deaf or hard of hearing and self-determination.

Carrie Lou (Garberoglio) Bloom, PhD, is co-director of the National Deaf Center on Postsecondary Outcomes, based at the University of Texas at Austin. Her research focuses on the psychological factors involved with transition and strategies for mitigating systemic disparities in Deaf communities. Bloom has led the development of many peer-reviewed publications, data reports, technical reports, and research translations from English to American Sign Language.

Some of the most critical soft skills (i.e., nontechnical, interpersonal skills that impact personal performance in an environment such as school or the workplace) that students must acquire as they mature are the skills to act or cause things to happen in their lives. Providing instruction to increase these skills—all part of self-determination—has been found to predict better in-school and post-school outcomes (Mazzotti et al., 2016). When students have opportunities and supports to "decide, act, and believe"—as we define the abilities that lead to self-determined action—they can act as causal agents and work toward achieving outcomes they value (Shogren et al., 2015; see Figure 1).

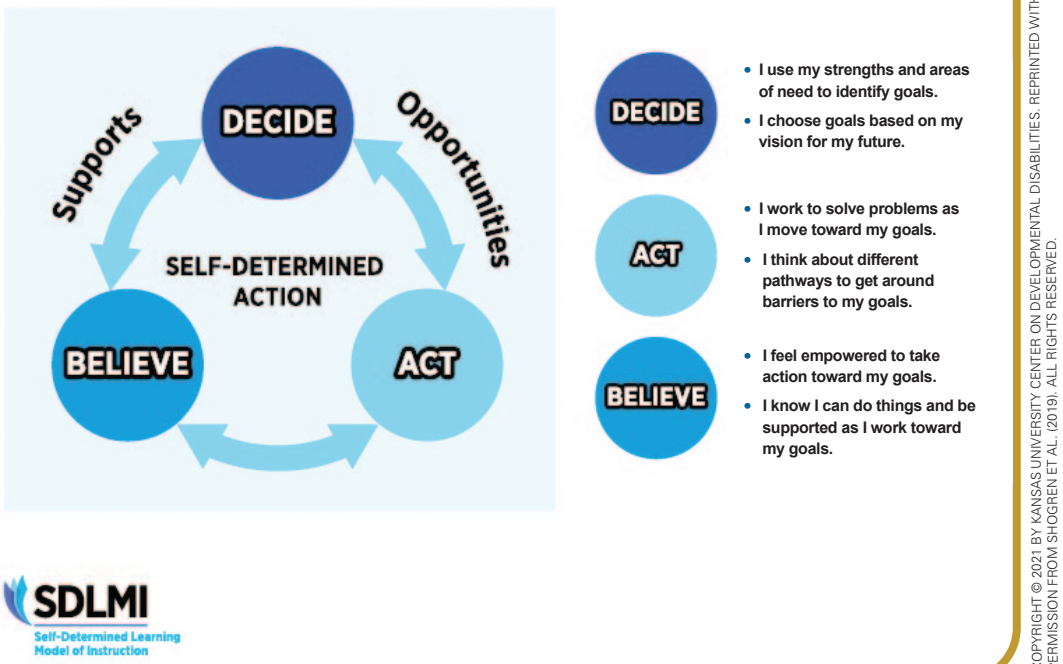
Self-determination enables students to identify goals and then act to realize those goals based on their own abilities and preferences. Self-determination becomes critical as students approach transition to adult life. As students prepare for their postsecondary program or the workplace, how they initiate and adjust behaviors becomes critical.

In Class: Instruction and Assessment

Skills can be targeted and addressed in the classroom through The Self-Determined Learning Model of Instruction developed by Shogren et al. (2019) at the Kansas University Center on Developmental Disabilities. This model supports teachers as they work with their students on skills that are part of self-determination. It enables goals to be set and actions to be initiated to achieve those goals (Shogren et al., 2019). The model promotes self-determination

Photos and illustrations courtesy of Kaitlyn Millen, Carrie Lou Bloom, and Karrie A. Shogren

Figure 1. Self-Determined Action Framework



through allowing students to develop skills in the categories of "decide, act, and believe." Here are the categories and the skills that may be taught through each:

- **Decide:**
  - o Choice making
  - o Decision making
  - o Problem solving
  - o Goal setting
- **Act:**
  - o Goal attainment
  - o Self-monitoring
  - o Self-advocacy
  - o Problem solving
- **Believe:**
  - o Self-awareness
  - o Self-knowledge

Developing and assessing these skills can be done through the Individualized Education Program (IEP). Teachers and students can create IEP goals and objectives that focus on developing these skills and reflect on how these skills will be assessed. The IEP can also engage students in identifying and monitoring their progress toward goals that are meaningful to them.

Taking Inventory: Understanding Skills and Abilities

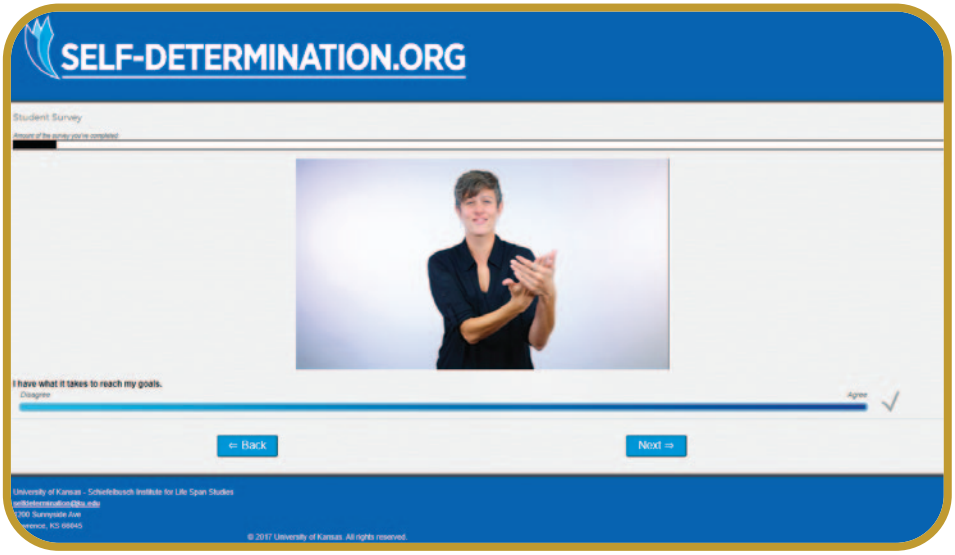
Teachers may find the Self-Determination Inventory: Student Report (Shogren et al., 2020), an online measure of self-determination, helpful. Through a collaboration between the National Deaf Center on Postsecondary Outcomes and the Kansas University Center on Developmental Disabilities, this inventory has been translated into American Sign Language (ASL). An ASL video is provided at the introduction of the measure, for each survey item, and for demographic questions. At the end, an ASL video explains the report and its results. (See Figure 2.)

The inventory takes approximately 10-15 minutes to complete and may be used to identify strengths and areas of need related to self-determination skills. Designed for people with

Karrie A. Shogren, PhD, is director of the Kansas University Center on Developmental Disabilities (a University Center for Excellence in Developmental Disabilities), senior scientist at the Schiefelbusch Life Span Institute, and professor in the Department of Special Education at the University of Kansas. Her research focuses on assessment and intervention in self-determination for transition-age youth with disabilities. She has led multiple grant-funded projects, including assessment validation and efficacy trials of self-determination interventions in school and community contexts. Shogren has published over 180 articles in peer-reviewed journals and is the author or co-author of 10 books.

The authors welcome questions and comments about this article at *kaitlyn.millen@gmail.com*, *carrielou@nationaldeafcenter.org*, and *shogren@ku.edu*, respectively.

Figure 2. Screenshot of the American Sign Language Self-Determination Inventory: Student Report



and without disabilities from ages 13-22, the inventory asks users to respond with the degree to which they agree or disagree with statements such as "I know what it takes to reach my goals" and "I make choices that are important to me." After they finish, a report is provided that breaks down self-determination strengths and needs, including ways to practice and use more self-determination abilities.

Day by Day: Promoting Self-Determination

Professionals and families can create daily opportunities that support students in building self-determination skills and abilities (Wehmeyer et al., 2007). The table on page 55—Decide, Act, Believe: Teaching Skills in Self-Determination, Pre-K through Graduation—shows ways to build these skills through each stage of a student's life: early childhood, elementaty school, middle school, high school, and postsecondary.

The Council for Exceptional Children (2018) updated the national standards for teachers of deaf and hard of hearing students to include teaching and assessing students' self-determination skills. As educational and work environments shift, self-determination abilities become more crucial than ever. In emergency periods, safety measures—including the use of masks, social distancing, and videoconferencing—can introduce significant barriers for deaf and hard of hearing people, requiring that they be skilled in identifying and responding to their own needs. Teaching self-determination skills can transform teaching to allow students to decide, act, and believe in themselves as the casual agents of action in their own lives.

Below: A group of teenagers test out early versions of Deafverse, an online choose-your-own-adventure game, to strengthen self-determination skills.

Self-Determination Resources

- **Deafverse (*www.deafverse.com*):** Deafverse is an online game, accessible in ASL, designed for deaf and hard of hearing students to develop self-determination abilities. The activities provide opportunities for students to think about their strengths, needs, preferences, and goals.
- **Self-Determined Learning Model of Instruction (*https://selfdetermination.ku.edu*):** An evidence-based intervention (Burke et al., 2020), this learning model fosters student development of self-determination through setting goals, developing action plans, and evaluating progress.

DECIDE, ACT, BELIEVE:

Teaching Skills in Self-Determination, Pre-K through Graduation

By Kaitlyn Millen, Carrie Lou Bloom, and Karrie A. Shogren

Teachers and families can use the following to help build self-determination skills through each stage of a student's life.

Life Stage	Skill Focus	Teaching Idea
Early childhood	Problem solving	Modeling: If a child loses a hearing aid, ask the child what should be done and demonstrate the process of taking steps to look for it.
	Choice making	Allow children to choose their own clothing or select a video—and support their choices.
Elementary school	Self-advocacy	Encourage children to role play ways to ensure they are included if left out of (hearing) conversations.
Middle school	Self-monitoring	Have students monitor their progress by charting test scores and discussing the scores with their teachers.
	Self-awareness	Have adolescents identify and address barriers to understanding in classes, such as too much background noise.
High school	Goal setting and goal attainment	Support student exploration of careers—identifying a career that is of interest, researching the requirements for that career, creating a plan, and taking actions toward achieving a career goal.
Postsecondary setting	Self-advocacy and self-awareness	Support young adults in requesting interpreters for a specific event and be prepared to support their self-advocacy if their request is not accommodated.

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Shifting Priorities, Technology-Centric Practices, and an Ever-Evolving Educational Experience for Our Children

By Catherine C. Valcourt-Pearce

Catherine "Cat" C. Valcourt-Pearce, MS, has worked at Gallaudet University's Laurent Clerc National Deaf Education Center, in Washington, D.C., for 27 years. She is managing editor for the Clerc Center's National Programs and Outreach as well as for its *Odyssey: New Directions in Deaf Education* magazine. She has also served as a freelance content advisor for four children's books published by Enslow Publishers related to sign language and deafness and has had articles published in *Parenting Special Needs* magazine and Scary Mommy. She and her husband, Larry, are the proud parents of four young sons. Valcourt-Pearce welcomes questions and comments about this article at *Catherine.Valcourt-Pearce@gallaudet.edu*.

Right: The Pearce/Valcourt-Pearce crew smiles for their annual family photo.

Since March 2020, when the worldwide COVID-19 pandemic hit, education in the United States has undergone significant change. As both a deaf professional in deaf education and as the parent of an OHKODA (only hearing kid of deaf adults) teenage son, a deafdisabled tween son, and deaf elementary-age fraternal twin sons, I have been in the unique position of viewing this transformation through multiple lenses. What I have seen has left me heartened and impressed—by the sheer amount of work and care across the board from the schools, the families, and the children themselves. These last couple of years have been incredibly challenging, but there have been some lasting changes that will serve us and our children well going forward, too.

As a Clerc Center Professional

Ready … Set … Go!

As COVID-19 quickly spread across the United States, everything shut down here for a bit. No one knew what to expect. We were all told to stay home by the U.S. government while they tried to get a handle on what was happening and how to contain the spreading of COVID-19. Education for our children was put on pause. However, behind the scenes at Gallaudet University's Laurent Clerc National Deaf Education Center, for students ages birth to 21, things kicked into high gear, and I had a front-row seat.

Clerc Center administrators, teachers, and staff were working furiously to get our students back to daily learning. As an editor working closely with the Clerc Center's creative team, I was involved in the effort to develop Clerc@Home, an online curriculum site for our demonstration schools, Kendall Demonstration Elementary School (KDES) and the Model Secondary School for the Deaf (MSSD), that could be used by both teachers and families. The website featured useful ideas and strategies for our students. It also had a PowerSchool

Photos courtesy of Cat C. Valcourt-Pearce

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Family/Parent Portal and technology support. Further, there were social-emotional supports added to help guide our families as they worked to center their children during this stressful time.

The Clerc Center also developed Learn@Home kits for KDES students which included instructional materials (e.g., markers, crayons, paints, paper, math materials, scissors, workbooks) that each student's family picked up from their school. Clerc Center students already had their school-provided iPads at home with them; to ensure they had access to instruction at home despite connectivity, MiFi devices were also sent home if needed. Classes resumed on Zoom, and students were able to maintain a daily schedule with teachers. The Clerc Center continued to mail home supplemental instructional materials to our students as at-home instruction was extended. While it wasn't an ideal situation, especially for students with additional needs, it was as close to "normal" as was possible during this period of time.

Speech-language sessions, library story time, physical education, STEAM activities, and even Field Day took place over Zoom, as did parent-teacher meetings, Individualized Education Program (IEP) meetings, and virtual ASL classes. There were daily lunch gatherings so the students could socialize. A diverse group of guest readers did weekly age-appropriate read-alouds. KDES and MSSD Back to School Guides with guidelines for returning to on-campus living and learning were created in English and Spanish and frequently updated. There were also weekly newsletters, translated into multiple languages, that went out to our families.

For the teachers and staff, department meetings also switched to Zoom, as did all paraprofessional training and workshops. The Clerc Center's Equity, Diversity, and Inclusion-related year-long diversity training with Andrea Sonnier, of Critical Consciousness School, had separate Zoom times for teachers and staff so that everyone had a chance to participate in small groups and to interact. Innovation projects were presented by our teachers and staff on Zoom. We did A LOT of Zoom!

One day flowed into the next, week after week, month after month, all of us giving our best effort, until the fall of 2021 when our students were finally able to return to on-campus learning (KDES and MSSD) and living (MSSD). When they did, masks were—and still are as we close out the 2021-2022 school year—required in the classrooms (although there have been periods of time when they were optional). Still, the students (and teachers!) are thrilled to be back in class, to socialize, to feel a sense of normalcy. Academically, like students in schools across the nation, our students are still playing catch-up. Social-emotionally, our students seem to be doing well all things considered.

As a Parent Keeping All the Balls in the Air

As parents, it's been a long journey these last two years for my husband and me. Our four sons have struggled, some more than others. There have been successes, and there has been some fallout from remote schooling. The long-term impact remains to be seen.

Left: Cole built on skills such as self-motivation, time management, and independent learning while remote schooling mostly from his bedroom during the COVID-19 pandemic.

THE OHKODA ONE

Our outgoing, funny, eldest son spent a good part of his middle school years stuck in his bedroom at a desk or on his bed. Cole wasn't allowed to go out and socialize, as kids his age normally do, because to do that without a vaccine was to put his severely immunocompromised and medically fragile younger brother at risk of dying, not to mention getting himself and the rest of us sick. He saw only his closest two or three friends occasionally, as their families were very careful, too. Emotionally, this was a difficult period for Cole; he worried a lot, and that took a toll. He's become quite introverted and keeps his emotions "close to the vest." Part of this is age, and part of it is a result of pandemic schooling and semi-isolation. Cole is also incredibly addicted to his technology devices, and that is something hard to moderate when they are still a big part of in-person schooling now because of how student learning has transformed.

Academically, Cole also struggled. He had an exceedingly difficult time focusing, and he would be playing on his personal laptop and on his iPhone (which he was allowed to have since it was used in specific classes for school-related work) as well as attending classes on his school-issued Chromebook when we weren't able to monitor his work. Cole would approach the end of each quarter with a great deal of work still due, and we'd have to look over his shoulder to make sure all the assignments got in and were credited. As parents of four and as working parents, we were spread thin. We'd forget to check what was due in our son's portal because he could work independently, and by the time we did, it would be a lot. This process was painful for the three of us. Our son is still working on developing good time management skills and meeting deadlines. Thankfully, Cole is an intellectual and a quick study, and his learning hasn't suffered. In that area, he is doing well.

Overall, our son is doing much better now that he is back to school in person. He is wrapping up middle school and preparing for high school in the fall. I will say that remote schooling allowed Cole to develop and enhance his computer and research skills and encouraged independent work. These skills will continue to benefit him throughout his schooling and as he moves on into his future.

THE DEAFDISABLED ONE

Our tween "double rare" son is in a hearing K-12 school for children with moderate to severe disabilities; Cree has a rare syndrome and a rare genetic condition resulting in a host of medical and developmental issues. Remote schooling was exceptionally challenging for him, including parts of it spent in a hospital room. There are no deaf schools out there equipped to handle children with Cree's type and extent of disabilities and needs. There also aren't many resources out there to fit children like ours. Not only is he audiologically hard of hearing, but he also has cortical visual impairment (CVI; he can't see well and only if things are close to his face, and he also sees some colors better than others) and severe hypotonia (low muscle tone). For this son, remote schooling was definitely trial and error.

Like the Clerc Center, Cree's school also sent home an extensive learning kit complete with adaptive equipment, his Chromebook and charger, and lots of manipulatives and lesson "props" (e.g., rubber balls, dice, black background tray for vision help, Velcro days of the week words and others, light pointer, crayons, markers, counting cubes, yes/no buttons). The administrators, teachers, and staff worked incredibly hard to transform their lesson plans and get the students online,

which was tricky with so many students with such diverse needs and issues. I was truly impressed by their enormous effort and by some of their modified learning strategies—adaptive PE was AMAZING, and Cree loved the homemade instruments and music videos incorporated into the general classroom lessons and the music class as well as the Deaf culture/sign language classes and the adaptive art classes. The principal sent out weekly Wednesday messages that were always captioned for access and that included Spanish translations for those school families that needed it; they were so successful that she continued to do this throughout the 2021-2022 school year.

However, other parts of Cree's remote schooling were incredibly frustrating for my husband and me, especially as Deaf parents. The captioning on Cree's Chromebook was always lagging maybe a minute behind any dialogue, and we couldn't follow; sometimes the captions disappeared entirely. Also, the Chromebook sound was extremely low so even with Cree's hearing aids, he often couldn't hear people speaking. Even American Sign Language (ASL) interpreters didn't help in this situation, although we did have them most of the time, because the Internet connection was often wonky in our apartment building. Further, with Cree's CVI, our son couldn't see the Chromebook screen from his wheelchair so we spent a lot of remote schooling with him on his side on the floor and us lying down behind him so that he could get close enough to the screen to see it and, with our hand-over-hand help, do the activities and schoolwork. When Cree ended up in the hospital after major surgery in 2021, he did some hours of remote schooling from his hospital bed by placing his logged-in Chromebook on a high/low medical table with wheels. When he was discharged, we bought one of those tables for home and that helped with Cree's ability to sit in his wheelchair and attend remote school when he was ready; the high/low table brought the Chromebook much closer to his face. Thankfully, parent-school meetings and IEP meetings were set up on Google Meet, and we had ASL interpreters for those meetings as well as captions that worked much better.

As working parents, we would not have survived this period without the help of Cree's incredible home health aides from Celebrate Ability. There simply wasn't enough time in the day or hands in the apartment to manage it all. They took over much of Cree's schooling while we managed our twins' remote schooling, checked in periodically on Cole's remote schooling, and attended to our own work meetings and projects. These aides were invaluable.

Above: Cree often accessed Zoom classes on his school Chromebook on his side on a mat on the floor so he would be close enough to actually see the screen due to vision issues. **Left:** Family consultant/home health aide Jean Paul Attie helped Cree participate in remote school classes using techniques such as hand-over-hand for communication buttons, manipulatives, and other adaptive tools.

Left: Zev, Kai, and their dad (Larry) work together on a science experiment—making play dough—by following pre-recorded directions on YouTube in the twins' Seesaw app. **Below:** Kai and Zev participate remotely in class with their KDES peers on Zoom.

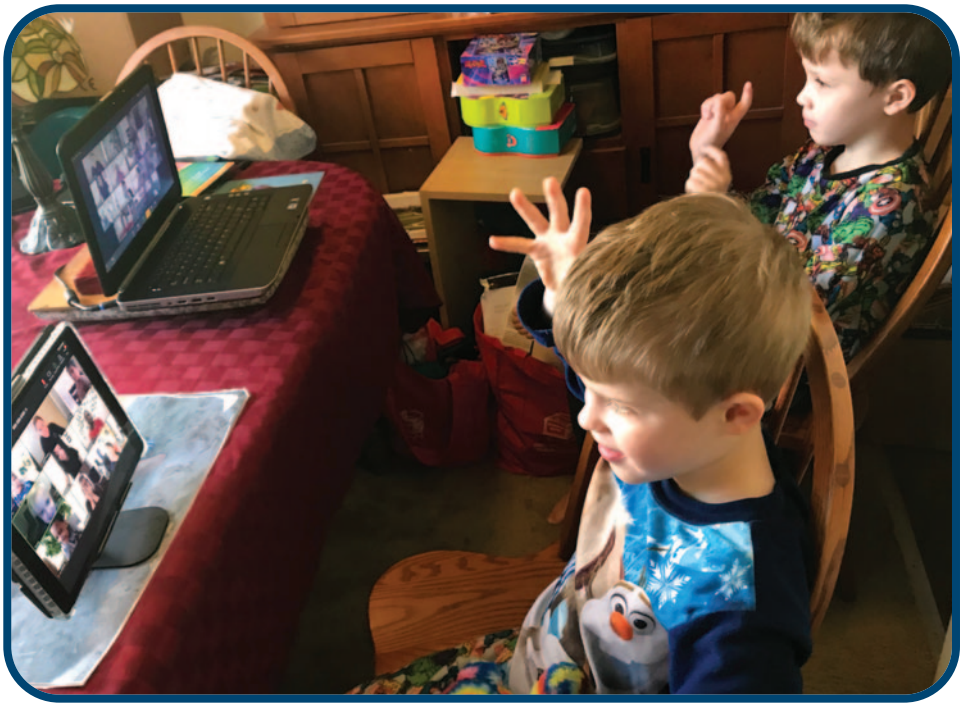
Academically, we honestly don't know how much Cree was impacted by remote schooling. His disabilities are such that he can't explain anything. However, he is definitely happier to be back in school with his teachers and peers. Social-emotionally, we have seen much joy as well. He loved being at home with his family, and he still does, but he loves the stimulation of being at school and out in the community, too.

THE DEAF TWINS

Our twins, Zev and Kai, were KDES students, and it was fascinating to me as both professional and parent to see how they were able to benefit from the newly created Clerc@Home website materials that I'd had a part in editing and the reformatted lessons on which our Clerc Center teachers and staff had worked so hard. The Learn@Home kits were very useful, with plentiful materials, and they were well-organized, and the periodic refill of materials from the Clerc Center went a long way in easing our stress about having to pay for school materials.

As a result of transforming in-person school lessons into remote ones, our young sons were able to expand on the development of soft skills such as patience, clarity of communication, attention to detail, and turn taking through Zoom, a platform they had never used before the pandemic. They also learned to competently use an iPad, including utilizing new apps such as Seesaw, Kids A-Z, Kahoot!, and IXL. They learned how to upload drawings and photos of artwork to Seesaw and how to respond to teachers' comments on the app. Their technology skills grew by leaps and bounds!

Challenges came in the form of sitting still for long periods of time, of frustration when something wasn't clear and they couldn't have that direct help from the teacher, of arguing or distracting each other because their work spaces were at the same table due to space limitations in the apartment with four remote-schooling children, and of having to attend to classes when they weren't feeling their best. One of our twins needs additional supports to focus, and that was sometimes hard to manage with our attention elsewhere out of necessity. School meetings, though, with KDES teachers about either of our sons were always with a sense of relief. They were always in ASL



directly with the teacher(s), as were IEP meetings. We never had to worry about struggling through those meetings communication-wise.

Socially, our twins didn't suffer. They are each other's best friend, and they always had an age-appropriate playmate in each other. They missed their KDES friends and teachers, but Zev and Kai got to see them daily during the week on screen and that seemed to be sufficient for them. As their deaf and hard of hearing friends aren't in our residential area anyway, they didn't miss going out to play with them. We kept information about the COVID-19 pandemic and current events to a minimum. As a result, they came out of that period of time relatively unscathed—although with a new technology addiction and a slightly OCD aversion to germs.

Academically, though, Zev and Kai are playing catch-up like other K-12 kids all across the nation. They are behind in reading and writing, and that isn't a surprise to us. Zoom learning isn't in-person, hands-on learning no matter how hard the school community worked. Some things are simply better learned in the classroom. There is time; they will get there.

Left and below: Zev proudly displays a tree painting he made in virtual art class, while Kai shows off his project for remote STEAM Day.

Looking Back, Looking Forward

As we begin to come out the other side of the pandemic, I have a huge respect and new appreciation for the Clerc Center community; for Maryland's Montgomery County Public Schools administrators, teachers, and staff; for home health aide support and Celebrate Ability staff; and for all those across the United States (and the world) who are simply doing their best. Families were hit hard. School communities were hit hard. Businesses and workers were hit hard. No one escaped this pandemic untouched, some more than others.

None of the last two years has been easy. Transformation of any kind rarely is, and certainly not of the magnitude of which we've experienced. Not all remote learning strategies were successful; some of our most fragile children really lost out, and we are going to need to figure out how to best support them so that they can continue to thrive.

However, some of our children did really well with parts of remote learning. Some thrived in the quiet of their home environment and developed independence in learning. Some very useful skills were built upon and have now become enmeshed into our daily lives. One notable transformation in our on-site classrooms is how thoroughly embedded technology now is (e.g., iPads are used for many projects and in many situations) and how our students have adapted to routinely using it together in teams or groups and alone, and that's an important and marketable skill for later on.

As I look to the future—as a parent and a professional—and with the ever-evolving nature of education and student learning, I wonder what is next on the horizon. I look forward to the innovations and transformations ahead!

Rachel Steingieser, ME, teaches in the Early Childhood Education program at Kendall Demonstration Elementary School, one of the Laurent Clerc National Deaf Education Center's two demonstration schools on the campus of Gallaudet University in Washington, D.C. She welcomes questions and comments about this article at *Rachel.Steingieser@gallaudet.edu.*

Signs, Graphemes, Books, Writing—and Lots of Joy:

Embracing Bilingualism with Preschoolers

By Rachel Steingieser

As they clamor into our classroom, my 4- and 5-year-old students are conversing with each other—and already using two languages. It is April and the books, so bright and shiny in the fall, have a well-worn look after lots of reading and rereading. My deaf and hard of hearing students are in the pre-kindergarten classroom of Kendall Demonstration Elementary School. The students and I use American Sign Language (ASL) and English throughout the school day. The goal, of course, is a fully evolved bilingual environment in which the children become fluent in both languages.

As classes moved through the spring, I saw that this was indeed what was happening. Even Foresta*, who began the school year so timidly, is conversing excitedly with her classmates. When Foresta started class, she did not engage with me or the other students—not in our morning meetings, not in story time, not in any of the conversations that surrounded her. Mostly, Foresta observed the other children from a distance and played by herself. Her literacy knowledge was minimal; she only knew two of the seven letters in her first name.

For all my students, but perhaps especially for Foresta, a new bilingual teaching strategy helped her blossom, becoming more confident while at the same time experiencing a strong development in her literacy skills.

Photos by Matthew Vita and courtesy of Rachel Steingieser

Above: Steingieser's preschool deaf and hard of hearing students learn and use ASL graphemes to develop their English literacy skills.

Graphemes—New Teaching Strategy

For generations, classroom English teachers have exploited knowledge of English phonemes to teach hearing children. I am one of the first teachers, to my knowledge, to exploit the strategy of using ASL graphemes to teach deaf and hard of hearing children.

Just as English and every spoken language can be broken into discrete units, ASL and every signed language can be broken into discrete units. The discrete units of spoken language are phonemes, a combination of the sounds that comprise the language. The discrete units of signed languages are graphemes, a combination of aspects of hands and body (e.g., handshapes, palm orientations, positions, movements, expression, non-manual signals) that comprise the language. Just as the sound "tah" alone is not a phoneme, the handshape "five spread fingers" is not a grapheme. "Tah" or "t" must be combined with at least a few more letters (e.g., *t-ow* or *t-op*) to make a phoneme. The same occurs for the handshape "five spread fingers," which must be oriented in space to become a grapheme. Alone and in a certain position, "five spread fingers" on a single hand constitutes the sign *five*, of course. However, on the forehead, the handshape means *father*; on the chin, it means mother. Combined with a second five-handshape and in motion, it can mean *rain* or *wind* .

ASL is a visual language, and I introduced the concept of graphemes with an illustration (Ocuto, 2015). When the children arrived to class, they encountered a bright and bursting rainbow on the board. I used the colors of the rainbow to help students categorize ASL graphemes. Categorization by color reinforces learning. The colors of the rainbow and their categories of signs and graphemes are:

- **Red**—Signs are made on the forehead for written words such as *if*, *dad*, and *sick*.
- **Orange**—Signs are made at the chin, mouth, or nose for written words such as *mom*, *is*, and *caring*.
- **Yellow**—Signs are made at the chest for written words such as *I*, *have*, and *bat*.

Additionally, **green** is the color for hands—for *school*, *pencil*, and *paper*. **Blue** is used to designate neutral parts of the body, not touching any body part, for signs such as *why* and *many*.

After the children mastered the concept of graphemes, I introduced the color **purple** for what linguists call lexicalized fingerspelling—signs that may have

originated in fingerspelling but are now abbreviated and stylized and are considered signs, such as *of*, *back*, and *bus*. Further, pictures are matched with signs, and pictures, signs, and colors are matched with colors selected from the rainbow.

Allen et al. (2014) have shown that such exposure to a rich language environment during the early sensitive period of children's development contributes significantly to their later literacy and academic achievement. Still, it is not enough for children to only have a rich environment in which they use two languages. Polio and Shea (2014) showed that when deaf and hard of hearing children did not receive strategies to help them move from one language to another, they could get overwhelmed with the myriad of structures in speech, writing, or signing. Andrews et al. (2004) shared the advantages for the developing child to be bilingual; there are cognitive, social, and developmental benefits. ASL graphemes and colored categories for handshape holders provide a great tool—we call it a bridging strategy—to help students move from one language to another. So, in addition to the pictures and signs, I also display the English words. The words are also color-coded to match the graphemes from the colors of the rainbow. Students are exposed to all three—the picture, the sign, and the color-coded word—and expected to bridge from one language to the other throughout the day.

Above and right: For a unit on weather, Steingieser's students learned ASL graphemes for "rain" and "wind" as well as the English words in print.

Signs to English

In the fall, students learned two to three new words in ASL and English every week. That number increased as the year continued, and by spring, they were learning five to seven new words every week. As each new word was introduced, we moved from ASL to English in four steps:

1. The students were introduced to new words through presentation on a large computer screen. Each word appeared individually in print with a picture that illustrated its meaning and its ASL grapheme—the handshape, position, location, and orientation with which the word is signed. Printed words were color coded to match the ASL grapheme. For example, as we did our weather unit, students saw a picture of falling rain; the ASL grapheme for the sign *rain* (e.g., two open "five spread finger" handshapes) color coded blue to show the location of the sign; and the printed word *rain*, also color coded blue to match its ASL grapheme.
2. Students fingerspelled each new word and discussed its meaning. The picture, ASL grapheme, and printed word were displayed in the classroom with the other words they have been learning. As the week progressed, students used their new words in a variety of ways.
3. Midweek, the picture and the ASL grapheme were removed, leaving only the printed English word. The word remained the color of the ASL grapheme to remind students of the handshape, position, and location of the sign. In the case of *rain*, the printed word remained blue.
4. By the end of the week, only the English word, now printed in black, remained.

This process is only part of learning new words in two languages, however. Students fingerspelled their new ASL and English words and used them in stories, quickly making the connection between print and fingerspelling. We read books

that included the words, and we recorded the words in ASL by taking pictures of the students signing the word and posting the pictures in the classroom. Students wrote and illustrated the English words, and their work was also posted. For example, to reinforce *rain*, we asked students to draw a picture showing some aspect of *rainy*, and we took a picture of them signing *rain* and posted the pictures on the board. Eventually, we exchanged the picture of them signing with the English words. Then only the English words in black remained.

Art is especially helpful in the preschool bilingual class. We have created ASL graphemes rhythms and rhymes videos. In the video, the background color changes to indicate the correct location for the word when we sign it.

Student Response
Growth in Confidence and Literacy

It warms my heart to see how our students have responded. After three months, Foresta saw her literacy skills grow. Soon she could fingerspell and write her own name and the names of most of her classmates. She knew her alphabet and recognized uppercase and lowercase letters. She fingerspelled printed words, identified printed words, and was able to work without a model. Most of all, she radiated confidence. No longer withdrawn, Foresta engaged in conversations with her classmates—often initiating the conversations and telling witty jokes.

Foresta's classmates have responded similarly. Recently, a mother approached me to report how she had noticed her child's growing literacy. Previously, the child had shown no interest in words or reading. His mother shared that now he enjoys reading books independently. Further, he was responding to print in the environment, drawing his mother's attention to it, fingerspelling the words he saw, and sometimes informing his mother of what the word meant, other times asking her, "What does [*fingerspelled word*] mean?"

It is amazing to see my students' growth. Their confidence has evolved from fear of giving the wrong answers to taking risks by sharing their thoughts and comments. They are so confident that they have become each other's teachers, correcting each other when incorrect handshapes or locations are used or when a printed word is read incorrectly. In my classroom, students' hands are often raised proudly in the air; they are ready to share their knowledge.

The strategy of teaching ASL graphemes and using graphemes to develop English literacy skills has proven successful on so many levels. When kindergarten starts next year, my students will be ready!

**Foresta is a pseudonym used to protect the student's privacy.*

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Transforming Emotional Health: Addressing Teacher Burnout

By Jennifer A. L. Johnson

Sometimes the most important transformations are those on the inside.

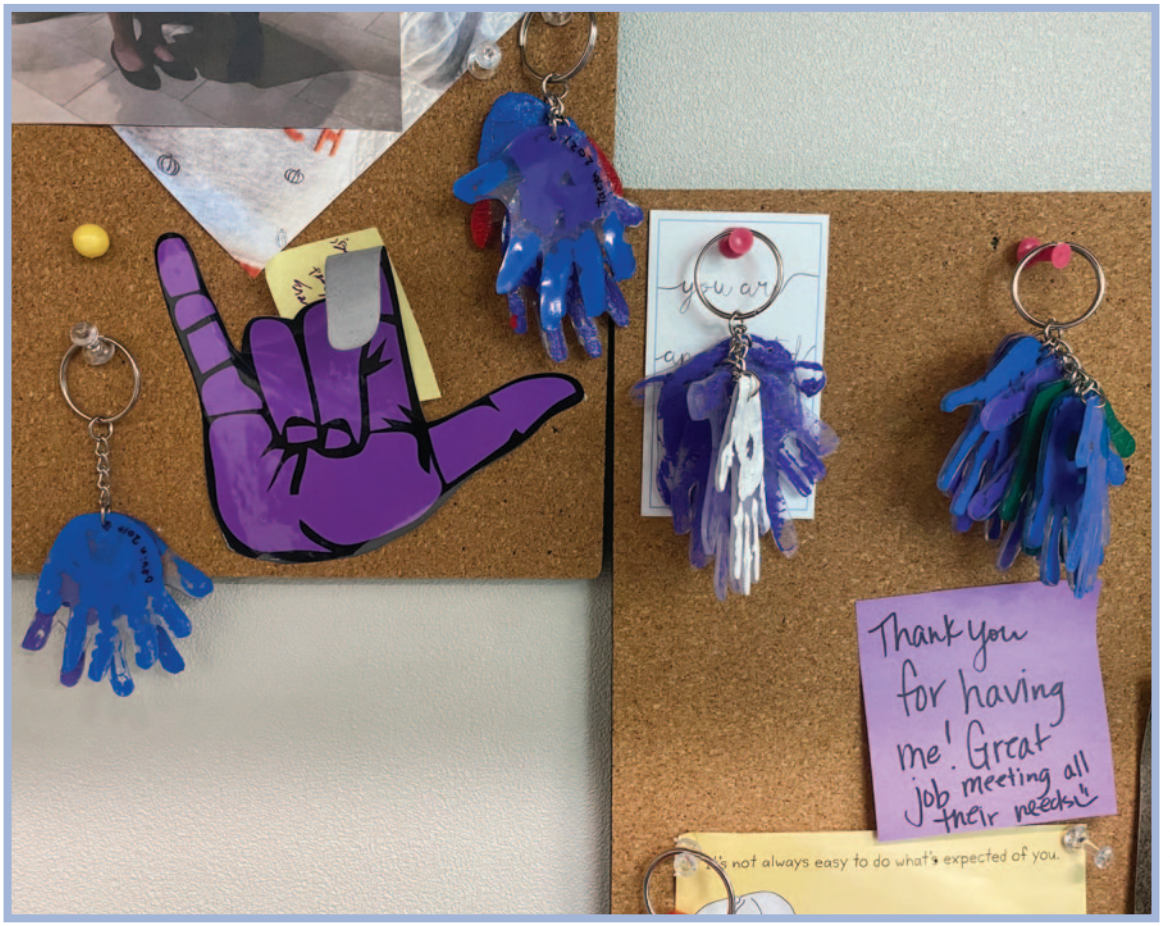
It was mid-September 2021. Some schools were still closed due to the COVID-19 pandemic. A deaf education teacher, who was still going to class and teaching in person—or at least was trying to—left the following message in my inbox:

> *"I'm just exhausted …," she began. "My students are out of control … I feel like I'm a terrible teacher … Kids aren't making progress ... I can hardly get them on task to learn anything … I don't even like one of my students, and that's never happened before … And then there's all the extra paperwork … all the extra tutoring required by the new state law … I don't know if I even want to do this anymore … I'm ready to quit, but I can't because I have to pay the bills."*

Her words echoed those I'd heard from teachers so many times before. I recognized them as a sign of severe workplace stress—what is commonly referred to as "burnout." Burnout is an occupational phenomenon measured by the combination of three dimensions (Maslach et al., 2001):

- Exhaustion
- Depersonalization or cynicism toward the job, and for teachers emotionally distancing from students and coworkers
- Inefficacy, or reduced sense of personal accomplishment

Photos courtesy of Jennifer A. L. Johnson and Tori Smith



CREDIT: TORI SMITH

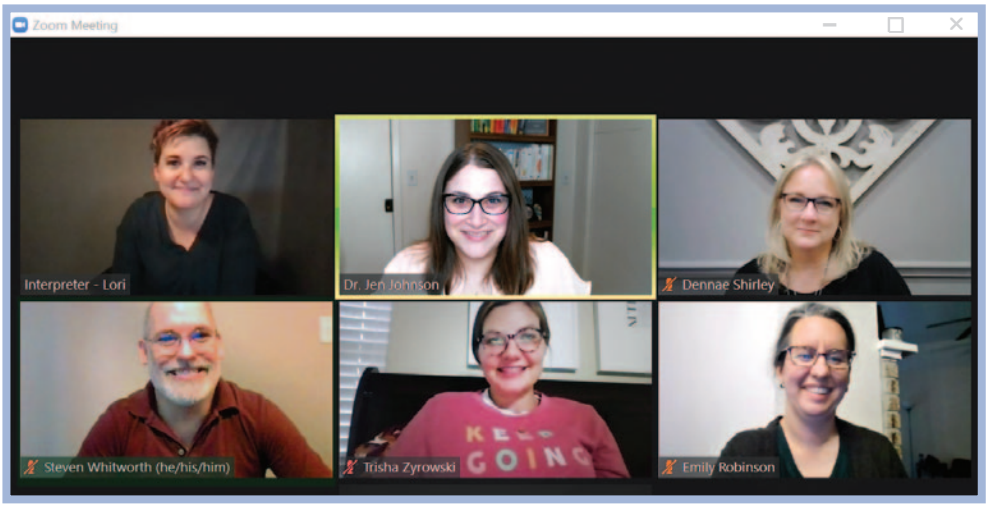
Left: A teacher of the deaf builds compassion satisfaction—joy and a feeling of satisfaction at seeing the impact of her teaching on her students—by keeping a bulletin board of photos, cards, notes, and student handprints. It reminds her that she's a good teacher, even on difficult days.

This teacher's cry for help reflected all three of these dimensions. She was exhausted. Her feelings toward her job had become cynical, and she sensed a lack of professional efficacy. I wish I could say I was shocked to read this in my inbox, but I wasn't. A visit to any Facebook group for teachers where they feel safe to share displays comments like this, and some comments are even more dire.

Before the pandemic even began, Kennon and Patterson (2016) investigated the causes of burnout in deaf education teachers. They identified eight stressors listed in order of stress level:

1. Amount of paperwork
2. High-stakes testing
3. Dealing with parents
4. Lack of administrative support
5. Lack of parental support
6. Lack of resources for deaf education
7. Responsibility of multiple roles
8. Inconsistency in curriculum for deaf education

This reflects the results of my own informal poll conducted during the pandemic in the teacher burnout support community I lead. When polled, deaf education teachers reported that increased paperwork was indeed a factor in the burnout they were fighting to overcome. However, the pandemic had caused new stressors. Teachers said that lack of sign language and auditory accessibility during virtual learning and hybrid teaching (online and in-person simultaneously) were the biggest stressors they were experiencing during pandemic teaching. Further, teachers frequently reported frustration with their administrators; they felt administrators did not realize or acknowledge how much work they did in comparison to pre-pandemic times. Additionally, they felt they weren't supported or valued. Hall (2021) found this unexpected result in her study of teacher self-efficacy during the pandemic. She found teachers were seeking emotional support from all stakeholders, including parents, administration, and the community, far more than they were seeking technical support. They wanted to be seen, heard, and validated for what they were experiencing at work.



Left: In teacher support groups, which fall within the "social support" recommendation, teachers can meet to discuss their experiences with burnout and make strategic decisions about new practices to implement to reduce burnout symptomology.

Burnout Recovery

Research on preventing and recovering from burnout is rare in education, although that is beginning to change due to a focus on helping people recover from pandemic-related burnout. However, burnout prevention and recovery research is quite common in other helping professions (e.g., nursing, veterinary medicine, and mental health counseling). Until research in education is developed further, we can turn to these professions to see what has been learned about burnout and, perhaps even more important, how people recover from it. Figley and Ludick (2017) suggested four keys to recovery:

1. **Engage in evidence-based self-care.** Prioritize attending to personal physical, emotional, financial, professional, social, and spiritual needs. Spread self-care throughout the day in short, manageable time blocks ranging from 30 seconds (e.g., deep breathing) to 30+ minutes (e.g., cooking a meal). Too often people don't engage in self-care because they don't know what self-care looks like and how little time it may take when integrated into the work day.
2. **Find social support.** Social support should be both professional and personal. Professional support for burnout recovery can be accessed through teacher support groups online or through a schoolwide support program (e.g., Teacher Care Network Support Community, *www.facebook.com/groups/teachercarenetwork*, is a free resource). Personal support includes the support of friends and family and participation in cultural organizations, hobbies, and communities of worship. At least some support should come from individuals who are not teachers, allowing detachment from chatter about work.
3. **Develop healthy detachment skills.** Detachment from work is a key skill, and it may be the hardest one to develop due to increasing workloads, ever-evolving teaching methods, and limited time to plan and provide meaningful feedback on student work. If you need to work at home, set boundaries by scheduling specific times and honor those times to reduce guilt. Delete your work email from your phone, and communicate that you are available by phone for emergencies. Enjoy your family, your home, and leisure.
4. **Build compassion satisfaction.** Compassion satisfaction consists of positive feelings from experiences that make us believe we are making a difference in our work. Keep records of success and accomplishment. Write down how you feel when you succeed. Save pictures, notes, and emails that prove you're an effective teacher. Refer to your lists and artifacts when least satisfied and most overwhelmed.

Further, if the dimensions of burnout—the exhaustion, cynicism, and feelings of inefficacy—become pronounced, it is critical to:

- **Seek help.** Administrators should help normalize the experience of burnout and assist those who seek help by referring them to mental health professionals, support communities, and coaches.

Burnout Evidence

Burnout Symptom	Personal Experience
Exhaustion	"I'm just exhausted." "I dread Monday." "I feel like I'm drowning."
Cynicism	"I don't even like one of my students, and that's never happened before."
Inefficacy, reduced sense of personal accomplishment	"I feel like I'm a terrible teacher right now."

Confidentiality should be assured if a teacher requests it. Learning—and modeling—emotional health should be part of the school culture.

- **Be transparent about the help you seek.** This applies especially to administrators. We teach kids new skills through modeling every day in classrooms across the world. To normalize a new behavior that feels risky, it helps to see someone in authority engage in that behavior without negative consequences.

When special education coordinator and former deaf education teacher Brittany Gregory, in the Arlington Independent School District in Urban, Tex., and I set up an interactive Zoom training in response to her staff's struggle with burnout, I was stunned by the positive evaluations. One teacher stated that it was the best training she had attended in 26 years. Her reaction made me reflect on exactly what we did. Teachers took an assessment to measure their compassion fatigue and burnout before they arrived. I briefly shared the science behind compassion fatigue and burnout. Teachers reflected on their own experiences with a partner and shared these experiences with the group. We learned a few practical strategies to build resilience based on the four key points in the beginning of the article. That was it.

Teachers reported that they had never had a name for what they collectively experienced, and that it felt validating to know what they felt was real. Several also stated in a variety of ways how they hadn't realized the impact work had on their personal lives, and that they were excited to start using the strategies. Validation of experiences. Sharing hardships. Strategies for recovery. This is what teachers needed.

While workshops and training can be critical, it can also be helpful to address issues related to burnout in the school's weekly newsletter. Regardless of the newsletter's style, addressing these issues lets teachers—and sometimes parents and caregivers—know that administrators would be supportive should a need for help arise. The newsletter might include:

- Articles that validate teacher experiences
- Contact information for an employee assistance program
- Contact information for private counselors and coaches
- Links to support groups in the area or online
- Links to websites or documents with information on burnout recovery
- Quotes about emotional health

As deaf education teachers return to the classroom and demands to decrease pandemic learning gaps grow, an emotionally safe environment for work becomes critical. Teacher experiences should be validated, and prevention and recovery from burnout should be normalized. Above all, we must provide meaningful, evidence-based resources that are accessible and low cost to support our teachers. Facing the issue of burnout and showing concern for teachers' emotional health and well-being can not only transform the teaching experience, it can transform the teachers.

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Burnout Assessment Tools

- **Maslach Burnout Inventory:** A more rigorously validated test by Christina Maslach, *www.mindgarden.com/117-maslach-burnout-inventory-mbi*
- **Professional Quality of Life Scale–Version 5:** A rigorously validated test that also includes measures for compassion satisfaction and secondary traumatic stress, *https://proqol.org*
- **Burnout Self-Test:** An informal assessment created by MindTools, *www.astrazeneca.com/content/dam/az/PDF/2020/covid-19-toolkit/Burnout_Self-Test.pdf*

Creating Transformative Units: Teaching to Foster Self-Determination and Learning

By Pamela Luft, Charlotte Brochu, Ashley Rasizzi, and Courtney Tanner

When Charlotte Brochu, Ashley Rasizzi, and Courtney Tanner taught deaf and hard of hearing students in public schools to complete their course assignments at Kent State University, they wanted to incorporate transformative strategies and their state's standards into their instruction. All they needed was a plan.

Brochu worked daily with three high school seniors in a deaf education resource room. Two students used cochlear implants and Sign Supported Speech, and one student used American Sign Language (ASL). Her supervising teacher provided support in inclusive classrooms but also worked with small groups of deaf and hard of hearing students on content.

Rasizzi worked with a fifth grader who used amplification and oral skills in inclusive classrooms with sign support during her daily resource room work in the deaf education classroom. Her supervising teacher worked with a wide range of elementary and middle school deaf and hard of hearing students primarily in the deaf education classroom.

Tanner worked with a 17-year-old deaf student with additional disabilities who used bilateral cochlear implants and Sign Supported Speech. They worked together in a resource room twice a week. The rest of the week, the student used an interpreter in a special education classroom for students with multiple disabilities. Like her supervising teacher, Tanner saw her student for 45 minutes twice a week.

All of the students except for Rasizzi's used interpreters when they were in inclusive classrooms.

To become transformative teachers, Brochu, Rasizzi, and Tanner needed to incorporate best practices, target their students' academic needs, and foster their students' self-determination (i.e., ability to make their own life choices) within their instructional practice. Their coursework and practicum would help them do this.

Photos and illustrations courtesy of Pamela Luft

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Charlotte Brochu, MEd, a May 2021 graduate from Kent State University's Deaf Education program, teaches deaf and hard of hearing students in Canterbury Woods, Fairfax County, Va. Prior to this, she worked as an educational interpreter in Loudoun County, Va. She was selected New Teacher of the Year in 2022.

Right: Ashley Rasizzi, Courtney Tanner, and Charlotte Brochu worked with professor Pamela Luft to complete their Deaf Education program course assignments for Kent State University.

Research-Based Interdisciplinary Instruction

Quality instruction can convert reluctant and struggling students into excited and engaged learners. Quality instruction incorporates states' curriculum standards and is based on outcomes data. Yet creating instruction from isolated standards is rarely successful for long-term student retention (Bransford et al., 2000; Wiggins & McTighe, 2018). Brain-based research indicates that students need clearly organized instruction with multiple exposures to critical constructs to deepen learning (Bransford et al., 2000).

Learning and retention are increased even further with lessons that are personally relevant. Student motivation and long-term memory improve when learning is useful and can be applied to challenges they are likely to face (Bransford et al., 2000; Wiggins & McTighe, 2018). Multidisciplinary unit topics that focus on a student-centered issue, stated as a problem or as an inquiry to investigate, increase student participation and engagement (Wiggins & McTighe, 2018). "Authentic" student-centered instructional activities result in high-quality learning that supports writing, mathematics, and science achievement; these kinds of activities have been identified as "best practice" in deaf education (Marschark & Spencer, 2009).

Best Practice in Unit Design

Student-centered, multidisciplinary instructional units are transformative because they combine student learning needs, standards, and effective instructional practice into an organizational structure that students can more effectively understand and use (Bransford et al., 2000). This can be effectively accomplished through a well-designed multidisciplinary instructional unit. Here is how:

1. **Identify student needs**—Planning for the transformative classroom begins with identifying the needs of students. This means not only their academic needs, but also their psycho-social needs, especially those that support the development of self-determination. Many deaf and hard of

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Courtney Tanner, MEd, a May 2021 graduate from Kent State University's Deaf Education program, teaches deaf and hard of hearing students in Pasco County Schools, Fla. Prior to this, she was a behavior therapist and then served in the Peace Corps for two years teaching English to students in the country of Georgia.

The authors welcome questions and comments about this article at *pluft@kent.edu.*

hearing students have fewer opportunities to develop self-determination than their hearing peers (National Deaf Center on Postsecondary Outcomes, 2018) despite this skill being a strong predictor of positive outcomes after high school (Cobb et al., 2009; Luft, 2016; Landmark & Zhang, 2010; Shogren et al., 2013). Standards for developing self-determination are found in most transition curricula, such as that developed by the Laurent Clerc National Deaf Education Center (2006).

Brochu, Rasizzi, and Tanner realized that their students, including Rasizzi's already career-focused fifth grader, needed to begin preparing for adulthood. They would incorporate self-determination skills as well as academic skills into their teaching plans. Their units would be based on real-life scenarios that would strengthen their students' development and confidence.

Designing Meaningful Instruction:

CONNECTING STANDARDS AND SKILLS

By Pamela Luft, Charlotte Brochu, Ashley Rasizzi, and Courtney Tanner

One of the challenges of designing effective instruction is making sure the skills taught are taken from state standards. Figures 1-3 show the standards that we—a professor at Kent State University and three teachers in training—chose to fulfill as we created instructional units for our students.

Brain-based research suggests teachers should provide depth and redundancy of content across contexts in order to deepen learning. To ensure this would happen, we created a question—at once overarching across curriculum and personal to each student's interests and needs—for the class to investigate. This allowed students to deepen their learning through multiple exposures across different academic areas and tasks. Key concepts were repeated but presented or used by students in slightly different ways. This is why units that incorporate multiple content areas are important. Too often in standards-based instruction, teaching becomes focused—and even isolated—on a single subject. This results in contextually limited presentations and student use.

The figures on pg. 73 provide a snapshot of each unit.

2. **Incorporate real life**—Brochu's students enjoyed discussing vacations. Their parents did the planning but, as high school seniors, her students would soon be expected to make weekend and vacation plans on their own. Brochu realized she could use the exciting topic of vacation planning to incorporate math, budgeting, and problem-solving skills as well as skills in reading and expressive language. Math and budgeting would be taught through pricing and making a budget; reading and language would be taught through examining information about vacation possibilities and explaining choices.

CREDIT: COURTNEY TANNER

Rasizzi's student had one long-term career goal—to become a dance teacher—and she had taken lessons for several years. Rasizzi felt her student should make an informed career decision after she looked at other careers. She developed the unit to help her student evaluate her abilities and career requirements in several areas and calculate costs of tuition and training. English language standards were easily integrated as Rasizzi's student searched for career information; math skills were used to calculate costs and career earnings.

Tanner's student enjoyed shopping; however, his family and teachers noted he was anxious about handling money. In response, Tanner created an in-class store. This allowed her student to incorporate the math skills of adding and counting money, expressive language skills to describe purchasing decisions, and social studies skills to identify prices in shopping ads and on item tags. As her student has significant disabilities, Tanner used extended curriculum standards for this unit.

3. **Focus on inquiry**—Addressing questions that respond to authentic problems enhances student motivation, engagement, and learning (Wiggins & McTighe, 2018); these questions can also be useful in integrating various unit elements. Brochu, Rasizzi, and Tanner used curriculum standards to establish expectations for unit

Figure 1.

Charlotte's Unit Question

CHARLOTTE BROCHU'S UNIT:

Students investigate: *How do I plan a trip or vacation that I can afford?*	
STANDARD With the exception of the transition standard that was formulated by the Laurent Clerc National Deaf Education Center, all standards were determined by the state.	SKILL-BASED ACTIVITY Teachers determined the activity to develop the skills that would meet the standard.
Self-Determination	Plan a trip and determine its cost
Transition	Budget money to fulfill personal needs and desires
English Language Arts	Integrate multiple sources of information presented in different media and formats
Math	Use units of measurement to understand problems and guide solutions
Social Studies	Understand the economic principle that competition among sellers lowers costs and prices
Science	Discuss data regarding self-regulation and the need for vacations

Figure 2.

Ashley's Unit Question

ASHLEY RASIZZI'S UNIT:

Student investigates: *What will it take for me to become a dance teacher?*	
STANDARD With the exception of the transition standard that was formulated by the Laurent Clerc National Deaf Education Center, all standards were determined by the state.	SKILL-BASED ACTIVITY Teachers determined the activity to develop the skills that would meet the standard.
Self-Determination	Cost and having sufficient income to attend college
Transition	Identify education and training requirements and skills
English Language Arts	Determine the meaning of words and phrases as used in a text
Math	Use variables to represent quantities in a real-world mathematical problem (i.e., budget)
Social Studies	Analyze individual and group perspectives for understanding comtemporary issues (i.e., conduct interviews)
Science	Identify questions answered through scientific investigations

Figure 3.

Courtney's Unit Question

COURTNEY TANNER'S UNIT:

Student investigates: *How many things can I buy with $20? How do I make sure I have enough money?*	
STANDARD With the exception of the transition standard that was formulated by the Laurent Clerc National Deaf Education Center, all standards were determined by the state.	SKILL-BASED ACTIVITY Teachers determined the activity to develop the skills that would meet the standard.
Self-Determination	Make purchases up to $20 using a phone calculator
Transition	Make small purchases with assistance
English Language Arts	Communicate using age-appropriate words
Math	Solve real-world problems using coins or bills and addition
Social Studies	Identify the price of goods
Science	Identify work being done (i.e., cashier, shopper)

learning, but they also crafted an overarching unit question that was student-centered. Framing an overarching student-centered question would increase engagement, motivation, and retention; it would also deepen learning and contribute to development of self-determination.

Brochu developed the overarching unit question (i.e., How do I plan a trip or vacation that I can afford?) that tapped into the students' vacation interests. Math and budgeting for the transition and self-determination standard fit easily into skills necessary to answer the question. It was also easy to incorporate reading and integrate information for English language arts. Social studies and science standards were more difficult; however, the broadness of her question led to a social studies standard for competition and cost comparisons, and the science standard allowed the addition of the concept of vacations supporting an individual's overall health.

Rasizzi's unit question (i.e., What will it take for me to become a dance teacher?) addressed her student's intended career. English language arts and math standards clearly fit and were easily addressed, but social studies and science standards were more challenging. Rasizzi's search for a social studies standard led her to propose interviews with dance teachers about their career paths. The science standard meant use of scientific inquiry as a basis for answering the unit question.

Tanner developed two overarching questions (i.e., How many things can I buy with $20? How do I make sure I have enough money?). Initially, all standards but science were easily integrated. Then Tanner discovered a science standard that allowed the incorporation of role play which also helped her student reduce his anxiety with money: he practiced being the consumer as well as the being the cashier.

4. **Create lessons that answer the inquiry**—Teachers should fashion lessons that lead to a culminating activity that answers the overarching unit question through problem solving and inquiry and reinforces the cross-disciplinary content.

Brochu's culminating activity asked students to present their final vacation choices. She had planned to use open-ended choices to guide students' learning; however, she realized that the students needed more structure. Therefore, she developed three options for each vacation element: the beach for $150 per day, an amusement park for $100 per day, and camping for $50 per day. Transportation options included using a bus for $30 per person, a car for $50 person, or a plane for $100 per person. Hotel options were staying at a fancy hotel for $200 per night, a good hotel for $150 per night, or an okay hotel for $100 per night. There were options for activities specific to each vacation choice, with prices listed as well as costs for meals. All was to be planned within a $4,500 budget.

Rasizzi's culminating activity required that her student present a career plan. The unit began with a career survey to confirm the student's interests, skills, and aptitudes that also exposed the student to related alternative career choices if she changed her mind or if her plans did not work out.

Tanner's culminating activity stipulated that her student independently enact a purchase, not to exceed $20, of multiple items in the mock classroom store. Her student learned to identify costs on price tags and to count money across various denominations of bills.

High-Leverage Practices
INCORPORATED INTO UNITS

The table below shows the connections between high-leverage practices—evidence-based practices—selected from Billingsley et al. (2019) and McLeskey (2017) and the teaching units that were devised.

Best Practice	Unit Activity
Use multiple sources of information to develop a comprehensive understanding of students' strengths and needs.	Units addressed multiple curricular areas and self-determination in new contexts.
Use student assessment data, analyze instructional practices, and make necessary adjustments that improve student outcomes.	Units addressed unique student needs, and teachers made adjustments as necessary to achieve unit goals.
Systematically design instruction toward a specific learning goal.	Units systematically integrated content areas to reinforce and deepen learning.
Teach cognitive and metacognitive strategies to support learning and independence.	Problem-solving formats and unit questions supported higher-order learning. Self-determination and transition goals addressed independent learning skills.

5. **Document outcomes**—Brochu's unit resulted in two of the three students' vacations being within the budget. With additional probing, the remaining student explained the meaning of negative numbers in his budget, and he noted that he needed to save more, demonstrating critical unit constructs despite his initial mistake.

   Rasizzi's student concluded by identifying several strategies to achieve her goal of becoming a dance teacher. She reviewed the skills and abilities she needed in order to succeed, and she identified the next steps to improve her skills and obtain feedback from her dance instructor.

   Tanner's student used small steps and repeated practice opportunities to succeed. He added a series of items he chose to purchase by using a phone calculator, noted if the totals were more or less than $20, and demonstrated at least two different combinations of bills when purchasing chosen items.

6. **Transformation through practice**—Inquiry-based units encourage student engagement, participation, and retention. Lessons begin with addressing students' strongest needs and build in a hierarchical spiral as students acquire additional knowledge and skills. Well-designed units include multiple recommended and exemplary practices.

   Brochu, Rasizzi, and Tanner were each able to design such instructional units. In addition, their units included a range of critical practices recommended by the Council for Exceptional Children (Billingsley et al., 2019; McLeskey et al., 2017). As they developed transformational units, they devised lessons that focused on standards, addressed students' academic needs, and supported development of self-determination.

As teachers, it is our role to ensure students become lifelong learners and successfully compete in our global society. Focusing on authentic issues that build self-determination through research-based practices promotes students' abilities to successfully solve problems and develops confidence in their ability to do so. This is critical to developing self-determination, part of the result of transformational teaching and the foundation for each student's journey to becoming a confident and competent adult.

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And the Beat Goes On:

USING MUSIC TO TRANSFORM CLASSES FOR DEAF STUDENTS WITH MULTIPLE DISABILITIES THROUGH UNIVERSAL DESIGN

By Julia A. Silvestri and Jodi L. Falk

Julia A. Silvestri, PhD, EdS, is lector in American Sign Language (ASL) and ASL program director at Yale University and an adjunct assistant professor in the Education of the Deaf and Hard of Hearing program at Teachers College, Columbia University. She is a certified teacher of the deaf, English teacher, and school administrator. She also serves on the board of the ASL Slam and is highly involved in ASL community performance arts and the development of school and community partnerships to facilitate language learning, literacy, and social-emotional learning skills through artists-in-residences, workshops, project/production-based learning, and inclusive multimedia curriculum design.

Music is a way of representing the patterns of frequencies and vibrational relationships—and at St. Francis de Sales School for the Deaf, we have used it to promote language learning and transform students' educational experiences. Traditionally defined through the medium of sound, music has been seen as an approach that excludes deaf and hard of hearing people. By expanding the perception of music, we have provided a transformative instructional experience for deaf and hard of hearing students with disabilities, allowing them to learn and grow in the music classroom.

Music Redefined

An Unrecognized History in Deaf Classes

We were not the first to explore the role of music in the lives of deaf individuals. Darrow (1993) found that deaf people participate in common musical rituals, though to a lesser extent than hearing people. Other studies have shown that deaf people participate in music to a different extent through a music-making culture that is specific to their cultural and linguistic experiences (Jones, 2015). In fact, music education has a long history in deaf education, emerging in literature as early as 1848 with an article that advocated teaching music to deaf pupils through mechanical means made accessible through sight and touch (Darrow & Heller, 1985) and continuing toward a deaf-led construct of music education that incorporates multimodal representations and Deaf cultural music-making (Holmes, 2017; Silvestri et al., 2018).

Right: During a hybrid music class, students wearing SUBPAC® speakers sit in front of laptops and practice dabbing as they brainstorm ideas. They are collaborating to create accessible dance choreography.

Photos courtesy of Julia A. Silvestri, Jodi L. Falk, and Chloe Tompkins

Music activities have been widely used to support communication, language, and literacy development (Harris, 2009). Music education for deaf students has been encouraged as a therapeutic tool for developing auditory language skills (Cheng et al., 2018; Lo et al., 2000), and the use of American Sign Language (ASL) nursery rhymes has been linked to greater literacy skills (Andrews & Baker, 2019).

The relationship between music and language is centered around two themes: playfulness and sensitivity to patterns. The playfulness of musical experiences appears to facilitate more effective adult-child interactions that impart critical language input through songs, rhythms, rhymes, and movements (Harris, 2009; Andrews & Baker, 2019). In addition to the language benefits, music education can have social-emotional benefits, particularly for students with disabilities, such as greater self-esteem, assertiveness, and social skills (Darrow, 2016). Whether through

auditory or visual-spatial means, music continues to be promoted as a tool for language development and social-emotional learning among both hearing and deaf children.

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The authors welcome questions and comments about this article at *jas2277@tc.columbia.edu* and *jfalk@sfdesales.org*, respectively.

Left: Students wearing SUBPACs clap in unison to the beats they experience in their music class.

Universal Design for Learning Meets Music for Deaf Students

The Deaf Music Project began at Teachers College in 2015, and we soon concluded that Universal Design for Learning (UDL) was the key to transforming access to music for deaf and hard of hearing students (Silvestri, Francisco, & Briggs, 2020). The principles of UDL have been suggested as an approach to music instruction in special education, and more specifically in deaf education (Darrow, 2010; Silvestri et al., 2018). UDL has guidelines to provide students with multiple means of:

- Representation
- Expression
- Engagement

Thus, using UDL, information is represented in multiple modalities. Students are able to share their understanding in numerous ways and are given multiple opportunities to engage in learning. The goal is to remove barriers in curriculum and develop barrier-free curricula (Meyer, Rose, & Gordon, 2014).

The Deaf Music Project aimed to redefine music by promoting the experience of feeling the music instead of simply hearing it. The various events and initiatives of the project have included panels, workshops, curriculum development, a resource website (*www.feel-the-music.com*), and an annual #FeelTheMusicTC concert and conference—a multimodal event with auditory music, music interpreting, ASL poetry, live captioning, music visualization technology, and tactile/kinesthetic tools (e.g., ribbons, balloons, wearable SUBPAC speakers). In addition to the Deaf Music Project, music education within deaf education continues to expand, whether through focus on the auditory (Chen et al., 2018; Lo et al., 2020), through focus on sign language and phonological development (Andrews & Baker, 2019), or through focus on the products and impact of deaf musicians and performers (Holmes, 2017; Acton, Howarth, & Mieko, 2020).

Collaboration Underway

Chloe's Kids Joins St. Francis de Sales

Chloe's Kids is a small business providing music, art, and language programs to deaf and hearing children of diverse ages, backgrounds, and abilities. Chloe Tompkins, a hard of hearing music teacher who is both owner and manager of Chloe's Kids, joined the Deaf Music Project at Teachers College in 2018 while working in the New York City area. Through the collaborations at Teachers College, Tompkins learned and began implementing transformative elements of deaf music making, such as ASL rhythms and rhymes.

During the COVID-19 pandemic, Chloe's Kids collaborated with other deaf artists, schools for the deaf, and the Teachers College Deaf Music Project to create multimedia productions and virtual learning programs. One advantage of remote programming has been that educators, parents, caregivers, and artists are able to connect and interact among a variety of locations with fewer barriers to scheduling and transportation. An additional advantage of remote learning has been the opportunity to bear witness and guide students with disabilities through authentic learning experiences at home.

A challenge of remote programming was that students struggled at first to engage and learn effectively through two-dimensional screens. For students with multiple disabilities, this challenge was compounded due to reliance on auditory, visual, or audiovisual input. Tompkins joined the authors of this article in the goal of motivating and engaging students with multiple disabilities in shared musical experiences with their parents and caregivers, teachers, and classmates. She implemented the principles of UDL and the Deaf Music Project to motivate deaf and hearing students on screen through movement, visual effects, and sign language.

St. Francis de Sales School for the Deaf, a New York state-supported school serving deaf, deafblind, and deafdisabled students in Brooklyn, N.Y., joined with Chloe's Kids to bring music—through its expanded definition—to deaf and hard of

hearing students with multiple disabilities. We had been successful in bringing art classes to our students before, working in partnership with nonprofit Kaiser's Room and the New York Deaf Theatre to provide classes in movement and dancing (Veyvoda & Falk, 2020). When Julia Silvestri, a teacher at Yale University and Columbia University's Teachers College and first author of this article, approached Jodi Falk, executive director of St. Francis de Sales and second author of this article, Falk enthusiastically agreed to bring another arts program to the students.

The Deaf Music Project was already underway. It was a collaboration of #FeelTheMusicTC at Teachers College, Columbia University, Chloe's Kids, and the principles of UDL. Tompkins provided music lessons to students at St. Francis de Sales, working directly with students and adults to develop skills in multimodal rhythms and rhymes. The students were deaf, deafblind, and deafdisabled, with disabilities including autism and intellectual and physical disabilities.

During the pilot year, one class was taught virtually through Zoom to students in the building with the support of teachers and teacher assistants. Teachers provided instruction, while teacher assistants sat with students to prompt and model as needed. The second class was taught virtually to students at home with the support of parents and caregivers. The music teacher, classroom teacher, and teacher assistants were present on screen, with students, parents, and caregivers in the homes. Parents and caregivers provided support with occasional or consistent prompting that was verbal, tactile, and signed. Together with the team of professionals from Teachers College and St. Francis de Sales, Tompkins developed a set of inclusive teaching goals and strategies to guide lessons. She and the team met regularly throughout the year to refine plans, share tips, and develop guidelines for future practice.

Expanding the Deaf Music Project for Deafblind and Deafdisabled Students:

TRANSFORMING FEEL THE MUSIC

As previous initiatives in the Deaf Music Project and general literature have focused primarily on the impact of Deaf culture in music-making experiences, very little consideration was given to the impact of additional cultures and multiple disabilities on music making. A collaboration between St. Francis de Sales School for the Deaf and Chloe Tompkins, a hard of hearing music teacher, focused on expanding deaf music education to enable the inclusion of deafblind and deafdisabled students. Below is a glimpse of our instructional plan.

Instructional Objectives:

- Discuss how students experience music.
- Define relationships to sound, touch, and sight.
- Explore the concepts of vibration and tempo.
- Identify and engage in musical patterns.
- Articulate feelings and intensity of musical experiences.
- Experiment with creating diverse rhythms.

Instructional Strategies:

- Use hands to communicate.
- Model touching the speaker.
- Pause/alternate language delivery.
- Model instruction and engage teachers and teaching assistants to further model/engage students.
- Have students pick examples of animals to use for warmups.
- Have students pick movements for warmups and choreography.

Music in the Deaf Classroom "I Feel It!"

Class content included instruction in musical concepts—using the expanded definition with an emphasis on beat and tempo, music making as a group, and ASL poetry composition. Each class began with a movement activity, such as stretching, modeling movements from animals or nature, or taking turns leading body movements that demonstrated music theory concepts (e.g., vibration and patterns). In alignment with the theories presented by Harris (2009) and Andrews and Baker (2019), Tompkins centered music instruction around two themes linking it to language—playfulness and sensitivity to patterns—and facilitating adult-child interactions.

In order for deaf and deafblind students to access the vibrational patterns of the songs, rhymes, and rhythms, Tompkins, teachers, parents, and caregivers provided tactile

Left: During a hybrid music class, the SMART Board® shows a Zoom room with the students and the instructor, all wearing SUBPAC speakers. **Below:** A student logs into a virtual music class while a teacher helps him into a SUBPAC wearable speaker.

and kinesthetic experiences, such as placing hands on device speakers, modeling patterned movements and signed songs, prompting students with touch cues and rhythm, tapping on shared objects, and using wearable speakers. The wearable speakers, SUBPAC backpacks, were provided to students in the classroom on campus. During the first experience wearing these backpacks, the common phrase among students was, "I feel it!" as many began to dance, tap, and even stand up and move around to the beat. Additional student engagement in music classes included typing in the chat box during class discussions, signing responses and questions, dancing, tapping, copying signs and movements, creating patterned movements, harmonizing movements and rhymes, and contributing ideas to a group composition.

Tompkins led students through group compositions using various strategies, such as 1-5 handshape stories, simple movement choreography, and signed songs following the modeled rhythm of the Gallaudet Bison chant (e.g., beat, beat ... beat, beat, beat). Using a white board, Tompkins wrote numbers for the steps, added words and images, and then led students, teachers, parents, and caregivers through each step. Teachers, parents, and caregivers assisted by modeling and/or tactile cueing students to sign or dance along. Using this technique, the group then rehearsed and performed the sequence, effectively designing and producing an original musical composition. The final composition was shown at the 2021 and 2022 #FeelTheMusicTC concerts. Students, teachers, parents, caregivers, and other members of the school community watched the performance with pride and excitement.

The second year, the program expanded to include students in all classes. Classes were conducted in a hybrid format with the students in the classroom connected to Chloe virtually on Zoom on the SMART Board. This format allowed the classes to utilize more UDL tools, including a greater amount of new accessibility accommodations (e.g., high-contrast images, black backgrounds, and Roman letter bubbling for students with visual impairment). The group became more connected in this format. Challenges from distance learning weren't as much of an issue, and students demonstrated a greater familiarity with community music making, evidenced by the length, originality, and design complexity of their second production.

Song of Remote Learning
Beat, Tempo—and Pattern Discovery

Although an ongoing challenge, learning remotely has provided unique opportunities for our students. Students have benefitted from collaboration across distances, refined use of technology, and increased school/home/community partnerships. Learning

remotely has brought students, teachers, artists, college instructors, researchers, graduate students, parents, and caregivers into a community based on transformative music experience. Together, participants have learned more about effective communication, explored strategies for representing and expressing musical patterns, and created musical compositions.

Educators for deaf and hard of hearing students must not be limited by narrow definitions of music making. The expanding music program at St. Francis de Sales has successfully instilled deaf, deafblind, and deafdisabled students with a growing appreciation for musical arts through multimodal instruction and music-making opportunities. As the project continues to evolve, the hope of team members is that future applications will continue to reveal fundamental steps in the connections between music, language, literacy skills, and social-emotional learning, and equip parents, caregivers, and educators with the knowledge and skills to support students through a process of playful learning and joyful experience.

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Math, ASL, Social Studies—

Building a Deaf School Online

By Michelle Tanner, Nathan E. Harrison, and Adam Billings

Michelle Tanner, EdD, associate superintendent of the deaf for the Utah Schools for the Deaf and the Blind, envisioned online courses for the deaf and hard of hearing students in Utah and led their development.

Nathan E. Harrison, EdD, curriculum director for the Utah School for the Deaf, was the assistant director for the Jean Massieu School of the Deaf as the work for online courses was being developed and participated in implementing these courses with students.

In Utah, deaf and hard of hearing elementary school students can access their education—in American Sign Language (ASL) and spoken and written English—from their devices at home. Many secondary students can access online coursework as well. This is thanks to a four-year project undertaken by the Utah School for the Deaf (USD).

The Utah Schools for the Deaf and the Blind (USDB), the agency charged with serving deaf, blind, and deafblind students throughout the state from birth to 22 years old (§UCA 53E-8-401), began to develop online content for deaf and hard of hearing students in 2018. Utah is the twelfth largest state in the nation, and USD serves deaf and hard of hearing students throughout a vast geographical area. Four campus programs located in more densely populated areas of the state serve students on site, and an additional 390 students are served by an outreach teacher of the deaf provided by USD in mainstream programs throughout the state (Utah Schools for the Deaf and the Blind, 2021).

All Utah students have had access to online courses thanks to several initiatives within the state that made it possible for students to have a device at home for the purpose of education. Further, the Utah Education Network provided each local education agency (LEA) with free access to Canvas, a learning management system, used by USDB as well as many K-12 programs and universities throughout the country. This coursework is engaging and accredited, but it is not accessible to deaf and hard of hearing students. In most instances, it lacks captions or ASL, and usually it lacks both (Lago & Acedo, 2017).

Our goal was to provide online services—even an online school—for deaf and hard of hearing students, both those in our deaf schools and those in our mainstream programs.

Photos courtesy of Todd Keith, USDB

Right: USDB staff and Deaf community members work with Utah students to ensure they are able to access online course content.

Beginning—Partner with NTID Provide Financial Course

To begin this hefty endeavor, USD established initial goals that have evolved over time. We decided to remain with Canvas and instructed all USDB teachers to make their educational content accessible through this platform; support for those who needed it was given through an educational technology specialist. In addition, USD hired Curt Radford, a Deaf person with a strong background in teaching online content to deaf students, for the position of online content coordinator, and he was available to our teachers as needed. Both the educational technology specialist and the online content coordinator were available to assist, as needed, in the creation of digital content. Some teachers took advantage of this support, and some did not. Some teachers adopted the use of Canvas wholeheartedly, and others did not. Training and support were provided to both groups to improve their skills.

We intentionally developed content to ensure it was accessible in ASL, written English, and spoken English. USD provided educational interpreters to voice for teachers who use ASL and written English—not spoken English—in their classrooms. This interpreter-educator partnership expanded during the COVID-19 pandemic.

At the same time, USD partnered with the National Technical Institute for the Deaf (NTID) to develop financial literacy courses that would be available to our students as well as those at NTID. This provided an opportunity to merge both projects. Two teachers were identified, earned a stipend for the additional workload, and received training from NTID. It took time to refine and adjust but, before 2018 ended, a fully online financial literacy course became the first online course that USD made available to any student.

Continuing to Build Mathematics and ASL

The next courses identified for online development were those in high school mathematics. With numerous courses requiring time to develop, synchronize, and teach, a single teacher was tasked; the teacher would use half of his time to create the content and half of his time to teach the classes. This teacher was given equipment for a home office, including a laptop setup, camera, and green screen; permitted to teach from home; and compensated for full time. Dr. Michelle Tanner, associate

Adam Billings, MEd, division director of the Utah School for the Deaf Online, directed most of the daily details in online course development and helped make an online deaf school a reality.

The authors welcome questions and comments about this article at *michellet@usdb.org*, *nathanh@usdb.org*, and *adamb@usdb.org*, respectively.

Left, below, and right: As a result of the COVID-19 pandemic, more options for and acceptance of online teaching and learning emerged.

superintendent of USD and co-author of this article, crafted a proposal to access USDB Trust Land Funds, which has the sole purpose in Utah State Code to "enrich the lives of deaf and blind students throughout the state of Utah" (§UCA 53E-8-407). The USDB Advisory Council and the Utah State Board of Education, responsible for governance of USDB, approved the use of the USDB Trust Land Funds for this purpose.

Shortly thereafter, USD ASL specialists designed ASL courses for deaf and hard of hearing students in mainstream settings. Most high school ASL courses are designed for hearing students, and the state requires only that students meet introductory language standards. USD would provide ASL courses that met the K-12 ASL Content Standards (Gallaudet University Laurent Clerc National Deaf Education Center & California School for the Deaf-Fremont, 2018) for teaching ASL as a first language.

As this evolved, an online department was needed to organize and guide the creation of more online courses and content. The outreach program director was assigned to monitor and build this program as an extension of this USD division. USD leadership notified LEAs about the available coursework. Another teacher was hired to create and teach online social studies courses.

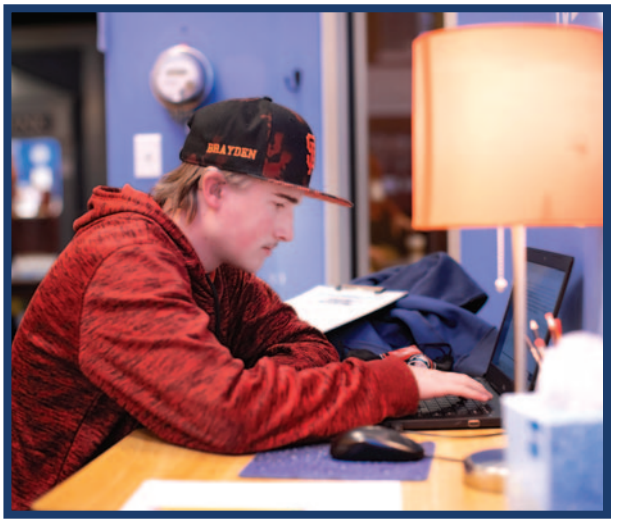
As more courses developed, USD leadership began to notify LEAs about the available coursework. During the COVID-19 pandemic—in the fall of 2020—all our online courses, including the English, ASL, math, and financial literacy courses, had grown sufficiently to warrant state reporting and recognition of the USD online school. Technology needs and Internet access were provided by the students' LEAs. USD hired another teacher for the online department to create and teach social studies courses and created a plan to tackle the creation of English courses.

COVID-19 and Online Education Looking Toward the Future

The closure of Utah public schools in the spring of 2020 began a change in the public education system toward more acceptance and options for online teaching and learning (Lockee, 2021). For USD, the online department's influence helped campus teachers pivot to online learning in two days. Teachers developed online content and changed their teaching to meet the needs of students who were suddenly no longer in their classrooms. Due to the unique school situations during this time, USD educational interpreters were able to devote time to translation work for USD teachers, such as voiceover work for ASL videos and translating textbooks into ASL. This planned time to work on these efforts continues post-pandemic.

The online content for elementary students was achieved with urgency derived from the arrival of COVID-19 with its school closures and quarantine. Again, Dr. Tanner sought funding from the USDB Advisory Council and the Utah State Board of Education. This proposal included large stipends for participating teachers to develop accessible online content for specific grade levels. The goal was to complete the development of elementary content by the end of the summer of 2021.

As time went on, we discovered that outreach teachers could facilitate the courses, eliminating the need to hire more staff. The outreach teachers made these courses available to a larger group



of students immediately. During the 2021-2022 school year, USD entered into a partnership with the State of Utah's Statewide Online Education Program, which will increase our ability to reach students in LEAs across the state while bringing some small stipends per student to support online development. We recognize that working within a larger organization's parameters for online education will bring new challenges; these parameters haven't always served the needs of deaf and hard of hearing students.

Lessons Learned

Not all of these plans went as smoothly as we would have liked. However, we have learned a great deal in the process. We learned that elementary courses can be difficult to facilitate with younger students without additional support personnel working with individual students. Differences existed in setting up the programming for our campus classes that accessed online instruction during the quarantine phase of the pandemic as compared to online instruction developed for outreach students in mainstream programs. Additionally, online content creation is not a short process. Time and financial support need to be provided for teachers to create content, but content development can be a joint effort beyond just the online department. As we move forward, there are considerations that need to be made for how to support the social-emotional learning of deaf and hard of hearing students in an online environment, especially for courses that are asynchronous; students and teachers can participate in these courses at a time that works for them.

The positives of this effort encourage us in this difficult work. We can now provide online coursework in ASL, written English, and spoken English for elementary school students and many secondary courses for high school students. Students can work entirely from home, or they can make up a high school course for credit, or a student in the mainstream can access these online USD classes. We have discovered we can now leverage outreach teachers to facilitate the courses with these students, eliminating the need to hire more staff. Using current outreach teachers will make these courses available to a larger group of students immediately. Having an online teacher's assistant who can reach out virtually to students, teachers, and families each week improves students' completion of online coursework. Today, any deaf or hard of hearing student in Utah can take advantage of the USD Online School. Deaf and hard of hearing students can elect to work entirely from home or make up a single high school course for credit. Students in the mainstream can sign onto courses in ASL and see other courses in written and spoken English. A shift in thinking has occurred. Many teachers have re-evaluated traditional notions of what school means and looks like. At USDB, we have embraced the concept that "school is a verb, not a noun" (Harrison et al., 2020). Our teachers and our students continue to actively learn. We remain in motion.

Authors' note: Please visit USD online at www.usdb.org/programs/deaf-and-hard-of-hearing/statewide-outreach-services-for-the-deaf/online-courses/. *If you are interested in learning more about developing a program for your state or area or collaborating, reach out to Dr. Michelle Tanner at* michellet@usdb.org *or Adam Billings at* adamb@usdb.org. *We would be delighted to share the ups and downs of setting up this type of program in your area.*

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EMPOWER YOUR CHILD WITH TEAMWORK, LEARNING, AND FRIENDSHIP.

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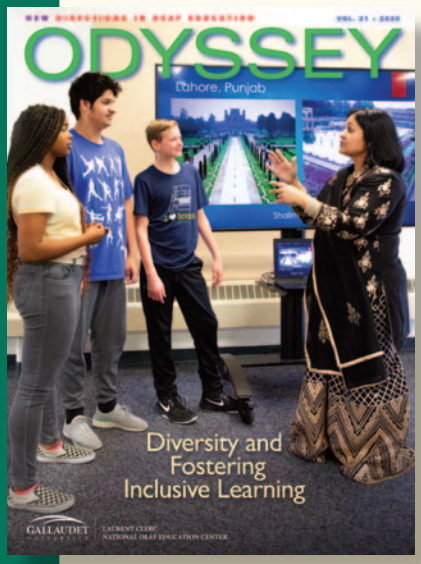
Seeking Submissions for the 2023 Issue of Odyssey

THEME: Access and Equity in Deaf Education

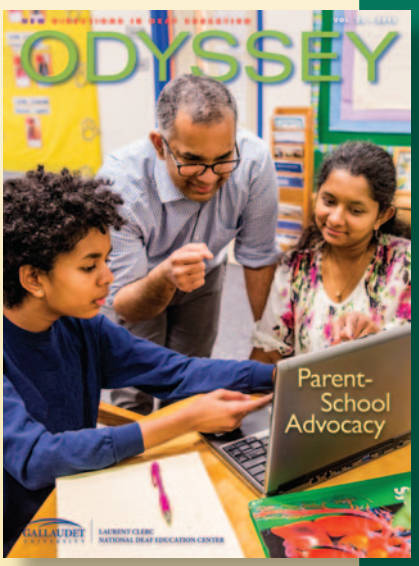


The next issue of *Odyssey* will focus on how deaf and hard of hearing students are being provided with equitable access to education, ensuring they have the resources and services they need to fully participate and succeed in both school and the community—as young children, as students, and, later, as adults.

Often the concept of "access" is defined by experts or regular users of a given system instead of according to the experiences and expectations of exceptional users who engage with the system. Who defines accessibility? The deaf or hard of hearing child or the people surrounding that child? In addition to determining what access means and how it will be provided, accessibility by itself may not be enough. Abundance of experience and ease of use are also important, especially in interactions involving language and socialization. Full and comfortable participation may be the ultimate measure of equitable access.

We want to know how families and educators are providing equitable access and enabling full participation for their deaf and hard of hearing children or students not only through technology but also through programming, activities, and strategies that promote maximum opportunities for learning and interaction:

- Which assistive tools and online technologies have been shown to support academic success and social-emotional development? How can we measure the efficacy of such tools?
- What unique strategies help create inclusive environments and promote an abundance of accessible and interactive language for deaf and hard of hearing children in their families and communities as well as in schools?
- How do we involve deaf and hard of hearing students in determining what access they need? How do we ensure they continue to receive both academic and social-emotional support?
- What have we learned from our own deaf and hard of hearing children and students, especially about what works best for them? How have we supported their advocacy and self-determination?



The Clerc Center is particularly interested in articles focused on serving students who are deaf or hard of hearing from traditionally underserved groups, including those students who are lower achieving academically, who come from families that speak a language other than English in the home, who are members of diverse racial or cultural groups, who are from rural areas, and/or who are deafdisabled.

Please e-mail your ideas to *Odyssey@gallaudet.edu*. We will begin accepting submissions on June 13, 2022, and continue until December 2, 2022, or until the magazine reaches capacity. Contact us at any time with questions or to discuss your ideas.

TO VIEW THIS INFORMATION IN ASL, SCAN THE QR CODE ABOVE.

Marvel Actress Lauren Ridloff Visits Clerc Center Students

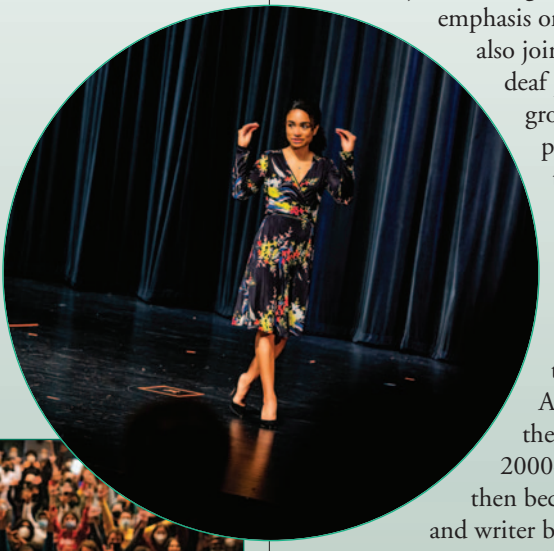
When Lauren Ridloff chose to become a teacher after graduating from college, she had no idea that the world would be her classroom!

Ridloff has been finding enormous success through her work as an actress. Her first professional movie role was in 2011; however, her acting career really began taking off in 2017. Since then, she has acted in notable roles such as Sarah Norman in Broadway's 2018 revival of *Children of a Lesser God*, for which she received a Tony nomination for Best Actress in a Play, and Connie in the AMC television series "The Walking Dead" among other productions and films. She is also breaking barriers in the Marvel Cinematic Universe—an American media franchise centered on a series of superheroes—having taken on the role of Makkari, its first deaf superhero, in 2021's *Eternals*.

On May 13, 2022, Ridloff was on campus for Gallaudet University's commencement ceremony, for which she was the honorary degree guest speaker. She was also presented with an honorary Doctor of Humane Letters for her work, along with pioneering deaf linguists Dorothy Casterline and Carl Cronenberg, who wrote and edited the first dictionary of American Sign Language with William Stokoe in 1960. On this day, Ridloff also made sure to stop by the Clerc Center's Kendall Demonstration Elementary School (KDES) and the Model Secondary School for the Deaf (MSSD) to give presentations to the students. Ridloff is a 1995 alumna of MSSD.

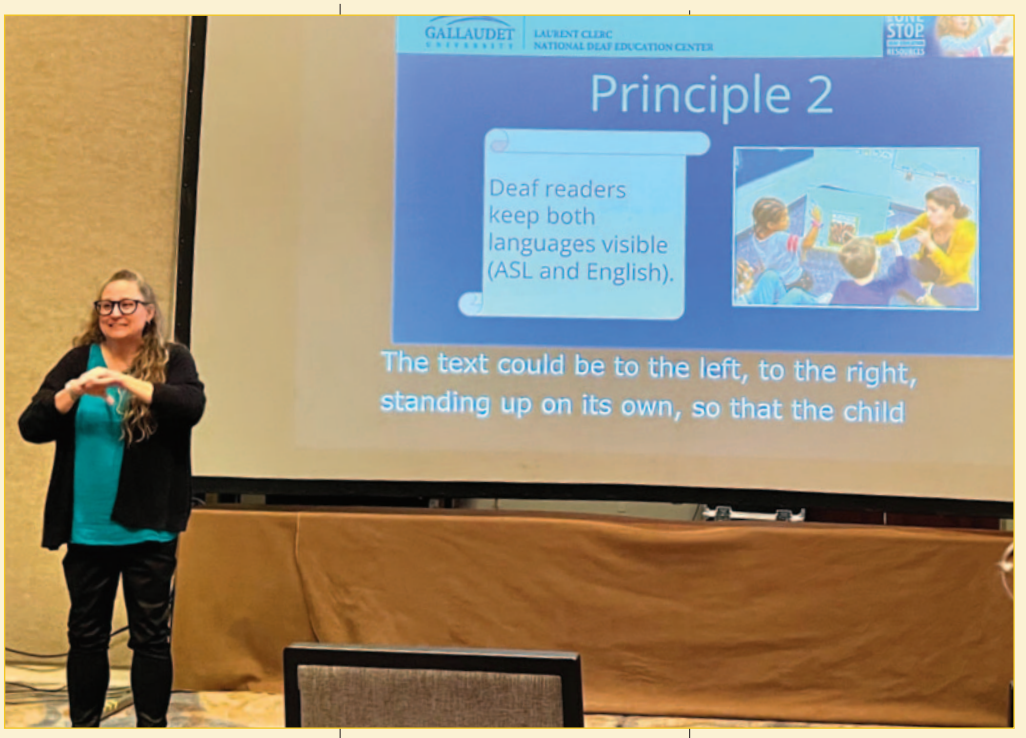
During her presentation at KDES, Ridloff emphasized to the young students the importance of pursuing what they like in life, of letting their interests lead the way. She explained that she has always loved to read and write, to imagine being other people in interesting stories. This naturally transferred over to acting, and it helped her become confident when initially she was painfully shy.

During her presentation at MSSD, Ridloff reminisced about her journey to MSSD. She arrived at the school at age 13, initially hesitant to come. She shared that she came to realize her parents' decision to send her to MSSD was one of the best things they ever did for her. During her years there, she was actively involved in the Performing Arts Program, playing the lead role of Dorothy in *The Wiz* and participating in the internationally known MSSD Road Show; she was also on the cheerleading squad. After graduation, Ridloff attended California State University, Northridge, where she majored in English with an emphasis on writing. She also joined a local deaf performing group. Ridloff participated in the 2000 Miss Deaf America pageant and won the crown, representing the National Association of the Deaf from 2000-2002. She then became a teacher and writer before finding success in front of the camera and on stage.



Ridloff continues to advocate for representation of the Deaf community in the world of entertainment and beyond, and she continues to inspire our Clerc Center community.

Congratulations, Lauren!



Clerc Center Announces New Formats Available for 15 Principles for Reading to Deaf Children Training

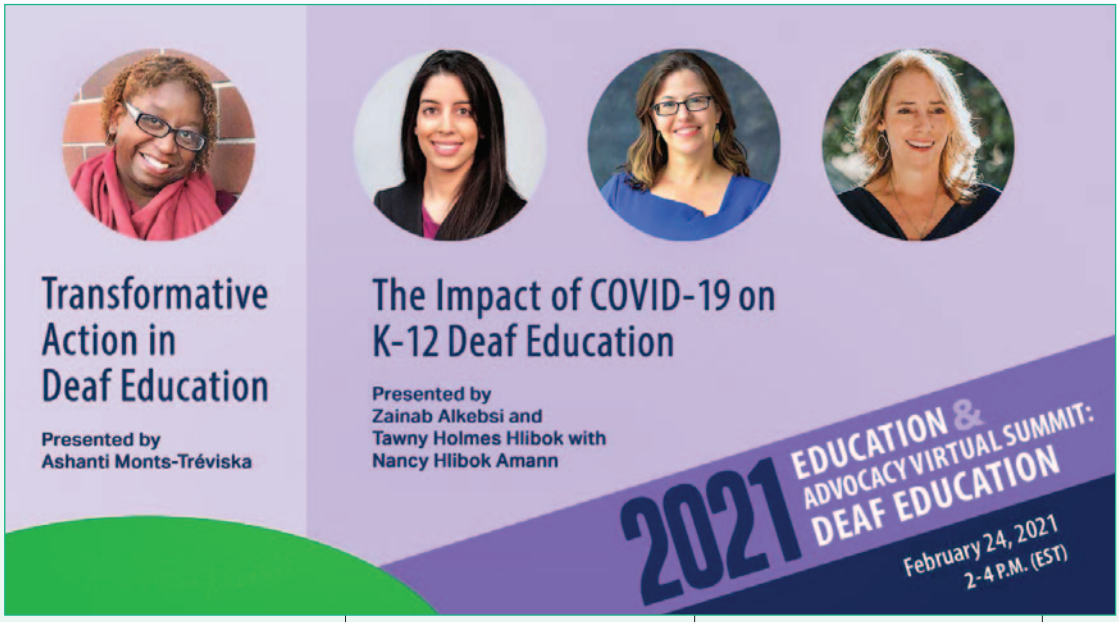
The Clerc Center is pleased to announce that 15 Principles for Reading to Deaf Children is now available as both an in-person training and an online, self-paced training!

The 15 principles are part of the Clerc Center's Shared Reading Project (SRP), which provides tutoring and support to families who want to learn how to effectively share stories in American Sign Language (ASL) with their young deaf or hard of hearing children. They are based on information gleaned from videotaping culturally Deaf parents reading to their Deaf children. Those videos were analyzed to determine what specific approaches Deaf parents used during their story sharing. The principles were then developed to give parents, caregivers, and teachers of deaf and hard of hearing children strategies in learning how to read aloud in ASL. When families effectively share stories with their children, there is a greater likelihood of an improvement in the reading ability of those children. The use of these principles can lead to literacy and language skills that will impact all areas of a child's learning.

The in-person 15 Principles training—the first format—can be tailored to audience needs, is offered as a six-hour training, and is available for a fee. The online, self-paced 15 Principles learning course—the second format—focuses on learning about what the principles entail, includes several independent activities, and is available to families, deaf education teachers, early intervention professionals, and anyone else who has or works with deaf or hard of hearing children. The free online training will be available on the Clerc Center's new portal (registration required). In addition to these new training formats, all videos for the 15 Principles have been updated.

We look forward to supporting families and professionals in learning more about the 15 Principles and the SRP. Please visit our website (*https://clerccenter.gallaudet.edu*) or email *training.clerccenter@gallaudet. edu* for more information.

Clerc Center Hosts 2021 and 2022 Education & Advocacy Virtual Summits



The Clerc Center, in collaboration with the Conference of Educational Administrators of Schools and Programs for the Deaf, Gallaudet University's Undergraduate Office of Admissions and Outreach, Gallaudet's Government Department, and the National Association of the Deaf (NAD), hosted its fourth and fifth Education & Advocacy Summit: Deaf Education. Both summits were held virtually due to the COVID-19 pandemic.

2021 Virtual Summit February 24, 2021

The 2021 professional summit, designed for administrators and professionals in deaf education and special education, had 393 registered individuals. It focused on social justice and equity issues and the impact of the coronavirus pandemic on K-12 deaf education in the United States.

Claudia Giordano, graduate and program assistant in Gallaudet's Department of ASL and Deaf Studies; and **Marianne Belsky**, chief academic officer, **Nicole Sutliffe**, chief administrative officer, and **Debbie Trapani**, director of Bilingual Education and interim co-director of Planning, Development, and Dissemination, from the Clerc Center, all gave welcome remarks.

Ashanti Monts-Tréviska, co-owner of Cascadia Deaf Nation, presented on "Transformative Action in Deaf Education." Their presentation highlighted critical action tools to guide educators and administrators in the education system to recognize the need to transform and empower the transpersonal worldview of deaf education.

Zainab Alkebsi, Esq., policy counsel at the NAD, and **Tawny Holmes Hlibok**, Esq., Gallaudet faculty member and education policy consultant for the NAD, co-presented on "The Impact of COVID-19 on K-12 Deaf Education," sharing legal guidance, technology resources, and social justice challenges and considerations that schools have been facing in figuring out remote learning as well as with how to bring students, teachers, and staff back safely on site. **Dr. Nancy Hlibok Amann**, superintendent of the California School for the Deaf-Riverside, also brought invaluable reflections and perspectives as a school leader to this presentation.

After the presentations concluded, the presenters participated in a live Q&A, during which participants had the opportunity to ask questions.

2022 Virtual Summit February 23, 2022

The 2022 professional summit, which was open only to administrators in deaf education and special education and for which 154 individuals registered, focused on Office of Special Education and Rehabilitative Services (OSERS) resources, the Clerc Center's new portal, and ways to support equity in schools from an administrative viewpoint.

Marianne Belsky, chief academic officer, and **Debbie Trapani**, director of National Programs and Outreach, Early Intervention, both of the Clerc Center, welcomed the participants to the summit.

Brianne Burger, director/liaison for the Special Institutions inside the U.S. Department of Education, OSERS, gave a presentation on "OSERS' Investments in Deaf Education" that included information on the Office of Special Education Programs' (OSEP) investments in technical assistance and dissemination; information on the National Center on Deaf-Blindness; and OSEP investments in personnel preparation, professional development, and leadership

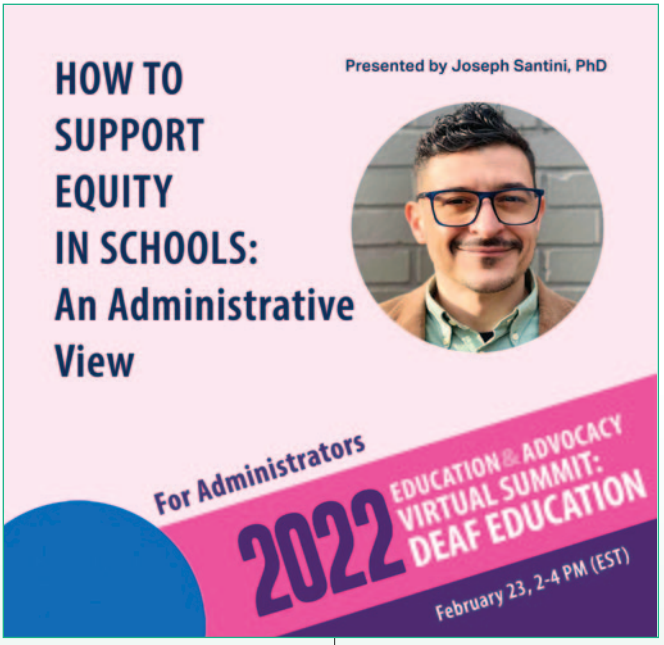
development to address state-identified needs for qualified personnel, including teachers and providers serving deaf and hard of hearing children, to ensure they have the necessary skills and knowledge via OSERS' various grants focusing on personnel preparation.

Trapani presented on the Clerc Center's new, soon-to-be-released portal that will serve professionals, early interventionists, and families. She "walked" the audience through the portal, showing various sections and what is contained in them (e.g., Online Learning; Learning Communities; Networking; Resources to Go, including media such as video content, *Odyssey* articles, links to websites, and training modules), explaining in depth how the portal will benefit users. Trapani mentioned that the portal is still in the building phase, and that the Clerc Center will be reaching out periodically to programs and individuals to gather more resources and information that can be added to the portal.

Dr. Joseph Santini, director of instruction at the Clerc Center, presented on "How to Support Equity in Schools: An Administrative View," focusing on core values and vision in equity, setting goals and exploring a school with equity in mind, building an "equity freeway," and developing an equity plan using a whole school approach. He also discussed identifying needed training, acknowledging that change can be difficult, and celebrating growth.

After these three presentations concluded, the presenters participated in a live Q&A, during which participants had the opportunity to ask questions.

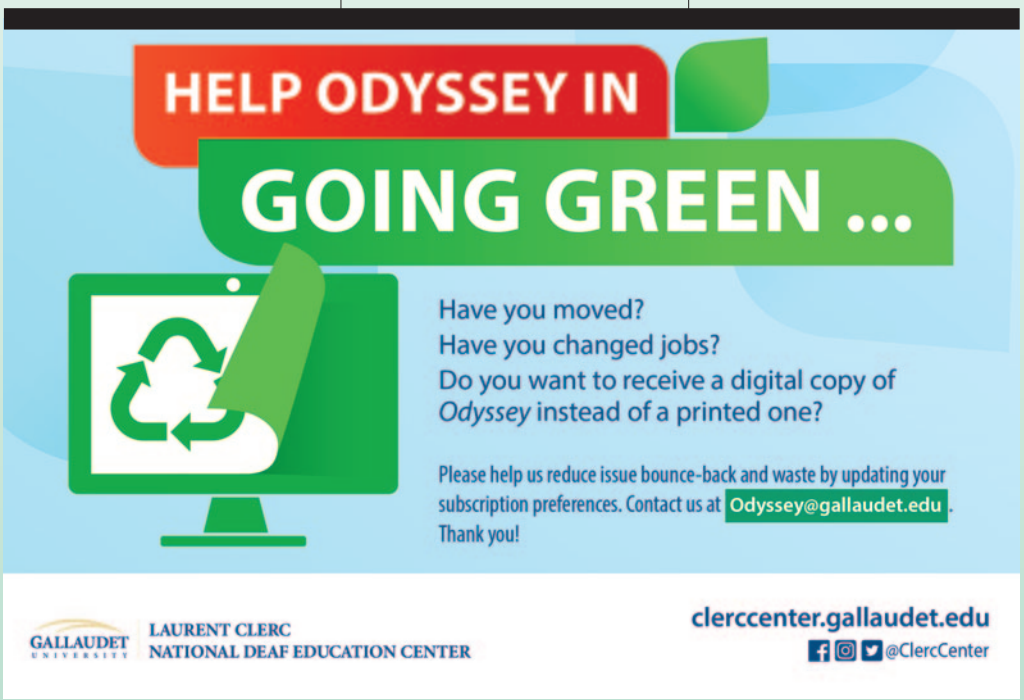
Finally, **Stacy Abrams**, project manager for early intervention at the Clerc Center, discussed current resources available to professionals and families on the Clerc Center's website. She spotlighted a few, including: the "Focusing on Early Accessible Language" webcast, the "Setting Language in Motion" modules, the Early Intervention Network, the 15 Principles for Reading to Deaf Children, the Parent Advocacy app, various other webcasts on which the Clerc Center has collaborated, and *Odyssey* magazine.



As the summit concluded, Belsky and Trapani encouraged people to sign up for the Clerc Center's new portal as soon as it is released and to answer a five-question, summit-related survey so that organizers can better prepare for the next summit in 2023 based on viewer feedback.

Prior to this summit, a virtual Youth Workshop on legislative advocacy, sponsored by Gallaudet's Deaf Studies Department, Gallaudet's Government Department, and the NAD, was held on February 22, 2022.

Come join us at next year's events!



The Power of Transformation in Deaf Education

By Andrea Sonnier

Andrea Sonnier, EdS, is the founder of Critical Consciousness School, a form of critical self-reflection that unlocks one's fullest potential in promoting healing, transformation, and freedom in their classroom, school, or community. She earned her education specialist degree in deaf education from Gallaudet University in Washington, D.C. Previously, Sonnier taught English to middle school and high school deaf and hard of hearing students in Louisiana, Washington, D.C., and Maryland. She has presented at local, regional, and national conferences on critical consciousness, the experiences of Black Deaf families, protecting deaf children of color, and the principles of social justice among other topics. Learn more about Critical Consciousness School at *www.andreasonnierbabin.com.*

While growing up, I dreamed of becoming a teacher. Now, as an adult with the opportunity to grow and transform myself every day by facing inevitable and challenging changes within and beyond the field of education, I am living that dream—not only as a teacher but also as a Critical Consciousness School consultant for teachers, administrators, and other leaders with a passion for deaf education and for creating equitable educational experiences for their students. It is through this lens that I look at this year's *Odyssey* issue, which truly reflects the time in which we are living.

The COVID-19 pandemic changed the world overnight and required each person to transform in order to survive and thrive. This is especially true in the context of deaf education. Practices in instruction, collaboration, and administration are effective only when they are truly relevant to students, teachers, staff, and administrators within a school. What's relevant to these individuals is also connected to what's going on in their lives and in their communities. Therefore, it stands to reason that practices will change—as they should—as the world evolves … locally, regionally, nationally, and even globally.

Change can be challenging, but tools to spur and support transformation in education do exist, and they allow us to help our deaf and hard of hearing students adapt to and prepare to navigate an ever-evolving world.

While change is unavoidable and far from easy, transformation is a choice. For instance, isolation and anxiety as a result of a global pandemic—that is change. On the other hand, expanding one's perception of music? A shared innovative and adventurous Deaf Ed Road Trip? Building compassion satisfaction? Addressing non-academic needs, such as teacher burnout in school weekly newsletters? Incorporating self-determination skills into teaching plans? All of these are what I call transformative.

And why are transformative practices in education important for deaf, hard of hearing, deafblind, and deafdisabled students? I believe that, as educators commonly find

in research and practice, multiple communities of students experience oppression in different forms within the field of education. To truly care for the students we know and love, it is important that we transform their educational experiences in ways that are not oppressive. It is only then that these students begin walking on paths that are designed to build up their individual well-being and agency as well as the well-being and agency of the communities of which they are a part. For instance, the merging of functional skills (such as cooking and self-advocacy) and academic skills (such as algebra and writing) in settings that serve all students rather than a select few on the basis of ability, race, class, gender, etc., is a transformative action in response to inevitable change that has helped expose disparities between student populations that are considered to be advantaged and those that are considered to be disadvantaged. This type of change is an important step in helping students gain equity not only in education but in preparation for life after graduation.

Additionally, to experience and create real joy for ourselves as teachers, staff, administrators, etc., and for students and their families, we must do away with operating on autopilot and find out what truly works best for those we care about in these current times. To address these issues often requires a process of self-transformation. However, while the transformation of self in this context is both a difficult yet joyous journey, it is nearly impossible without a community of support from other teachers, staff, administrators, families, etc. Community support may look like this: teachers bringing the world to students when students can't go out into the world (e.g., due to a pandemic); abled folks, including home health aides, providing companionship, meal preparation and support, assistance, etc., to disabled folks; and individuals bringing family gatherings to their homes (via Zoom) instead of heading out to gather with family. Connecting school and community (e.g., classroom lessons that intentionally reflect real life as it is and/or as it can be) in ways that transform the world as it changes is the common theme throughout the articles in this magazine issue.

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Eco awareness: *Odyssey* magazine is printed on recycled paper using soy ink.

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