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Deaf Students with Disabilities: A Functional Approach for Parents and Teachers

By Sara Schley and Jessica Trussell

Already a widely diverse group, deaf and hard of hearing students have different communication preferences, physical and academic abilities, and personality traits. When a deaf or hard of hearing individual also has one or more disabilities, the diversity increases exponentially. A deaf or hard of hearing child's already complex needs are compounded when additional disabilities are present. In this article, we summarize an approach we have used for the last five years teaching graduate classes and working with future teachers of deaf and hard of hearing children. Parents may also want to consider this approach as they work with educators and the Individualized Education Program (IEP) process to advocate for their children.

Each disability changes programming needs dramatically, and decisions for any child with disabilities in addition to deafness must be highly customized. Meeting the child's needs by focusing on functional demands in the educational environment—rather than discussing compliance with special education law—allows all parties to maintain collaborative interactions and the child to learn more effectively. This mindset (focusing on the functional impact of disabilities in the classroom rather than on legal definitions that qualify a student for special education services) assists teachers, service providers, and parents to collaboratively develop effective interventions.

When planning special educational services, a multidisciplinary team, including parents, considers 13 disability categories codified in the Individuals with Disabilities Education Act (IDEA) to determine the disability or disabilities for the child's IEP. These categories are meant to capture large differences in physical, perceptual, health, behavior, and learning factors and provide legal justification for qualifying the child for an IEP. Parents and

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educators understand that these categories do not inform the multidisciplinary team about how to best educate the child, but instead they provide legal justification for the provision of individualized educational services. While “deafness” and “hearing impairment” are identified as disability categories in IDEA, they may not be identified in the IEP of a child with multiple disabilities, including deafness. For example, one student’s IEP might say that he or she has “multiple disabilities,” and another student’s IEP might say he or she has “hearing impairment” and “specific learning disability.” It is worth noting that attention deficit disorder (ADD)/attention deficit hyperactivity disorder (ADHD), cerebral palsy, and dyslexia, so often seen in the classroom, are not listed in the IDEA structure of disability definitions.

Developing the IEP is designed to be a collaborative process among regular education

Above: 1. Academic disabilities impact access to academic learning but occur without below-average intellectual functioning. **2.** Cognitive disabilities include those where intellectual functioning limits learning of either academic skills or adaptive functioning. **3.** Social disabilities impact the social interaction and behavior management of the classroom. **4.** Physical and sensory disabilities impact students’ access to the educational environment and materials.

teachers, special education teachers, parents, and service providers to ensure specific educational goals are outlined at least annually. We propose a functional classification system to layer on top of the IEP process, focusing on the functional impact on the classroom of a child’s specific disabilities. This functional classification system could be for regular and special education teachers (including teachers of the deaf and hard of hearing) to use throughout the year when planning classroom



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aloud to show students how an adult uses language to think through a process. This type of intervention can be done at home as well, with parents using language to show their own thinking processes about decisions being made in the family.

Cognitive Disabilities

Cognitive disabilities limit intellectual functioning. When students—deaf, hard of hearing, or hearing—have cognitive disabilities, learning goals may be modified. More common cognitive disabilities in the classroom may be Down syndrome and traumatic brain injury. Sometimes these conditions limit adaptive behavior, including self-care skills such as putting on and taking off jackets and using the toilet.

For this population, simultaneous prompting can be an effective teaching strategy. In simultaneous prompting, the teacher gets the student’s attention and then asks a question or delivers a prompt followed by the correct answer. The student repeats the answer and the teacher restates the answer as reinforcement (Neitzel & Woolery, 2009). Another effective strategy is error correction—stopping the student when he or she is completing a task incorrectly, modeling the correct way to complete the task, and then setting up the task again for the student to complete in the correct manner. Parents can incorporate these strategies into daily living activities at home, such as dressing oneself, teeth brushing, or hand washing.

For deaf or hard of hearing students, teachers may need to rehearse implementing these strategies while using sign language. More time may be needed to sign, and the questions may need to be modified in response to the students’ visual attention. Teachers of the deaf and hard of hearing also need to ensure they have student eye contact and their lessons are appropriate for students whose primary mode of learning is visual. At home, the same is true. Parents should ensure they have

interventions and when collaborating with school personnel, service providers, parents, and families.

We propose four broad disability classifications that impact the deaf or hard of hearing child in the classroom: *academic, cognitive, social, and physical and sensory*. Each of these should be addressed separately, providing additional insight in instruction and collaboration with family and service providers—everyone who has a stake in the child’s educational plan. While the IEP still guides the process, parents and educators can use these functional categories to plan and implement the IEP in the classroom. Below is a closer look at the categories.

Academic Disabilities

Academic disabilities are those that impact academic learning but occur without below average intellectual functioning. These include learning disabilities, such as dyslexia, dyscalculia, dyspraxia, memory disorders, executive functioning, problem solving, sequencing, ADD/ADHD, and challenges with producing or comprehending language.

Once this set of disabilities is

identified, teachers can provide accommodations and adaptations to improve access to academic learning. Strategies that have been successful with hearing students with disabilities (Swanson & Hoskyn, 1998; Archer & Hughes, 2011) include a combination of:

- Explicit or direct instruction, or instruction with purposeful statements about the rationale for learning the new skill, clear explanations and demonstrations, and supported practice with feedback
- Strategy instruction, in which teachers provide direct learning strategies such as sequencing, segmentation, strategy cues, and controlling task difficulty
- Modeling and instructing students in small interactive groups

When using these strategies with deaf or hard of hearing students, teachers add supports, such as graphic organizers, that provide visual supports. Further, teachers model their thinking process during instruction by signing or speaking their thoughts as if thinking

eye contact before beginning any instruction.

Social Disabilities

Social disabilities include autism spectrum disorder, oppositional defiant disorder, depression, anxiety, bipolar disorder, and ADD/ADHD. When students have social disabilities, classroom personnel may need to add accommodations and modifications that ameliorate social interaction and behavior in the classroom. Children who are deafblind may also experience social disability.

For these children, the Picture Exchange Communication System (PECS), a functional communication system that is self-initiated and can be learned quickly, may be an option (Bondy & Frost, 2011). PECS starts with instruction on using single pictures to communicate, then using multiple pictures to make sentences, and lastly using pictures for a multitude of communication functions (e.g., requesting, commenting). For students who are deaf or hard of hearing, PECS may be paired with sign language and speechreading. In fact, several educational interventions have been devised for deaf and hard of hearing students with social disabilities. These include:

- Discreet Trial Training, a one-to-one highly structured intervention with clear, concise directions and planned prompts that are faded over time (Cohen, Amerine-Dickens, & Smith, 2006).
- Pivotal Response Training, a play-based intervention that occurs in natural settings and encourages parental involvement. This intervention targets particular skills or behaviors in pivotal areas of development, such as motivation, self-initiations, responsivity to multiple cues, and self-management (Koegel, Koegel, Harrower, & Carter, 1999).

- Video modeling and self-modeling, in which a skill is targeted through providing video examples. The teacher determines what skill to target and then makes a video modeling the skill in a natural or contrived context. The video can be made from a first-person or a third-person point of view. The student watches the video a predetermined number of times and then attempts to carry out the skill. The teacher will prompt throughout the video to maintain the student's attention (Bellini & Akullian, 2014). With the ubiquitous use of smartphones with recording capabilities, it is easy for parents to make video models for home and community routines, such as washing dishes or ordering at a restaurant.

Each of these tools can be used in the home, and close collaboration between parents and teachers will help the child's educational development.

Physical and Sensory Disabilities

Deaf and hard of hearing children with physical and sensory disabilities include those who have cerebral palsy; orthopedic or mobility impairments; vision impairment; and health challenges, including epilepsy, asthma, hemophilia, and traumatic brain injuries. They also include children with complex genetic conditions, such as CHARGE syndrome, Usher syndrome, Treacher-Collins syndrome, and Waardenburg syndrome. When students have physical and sensory disabilities, the educational environment and some parts of the learning experience may need to be modified. This may require attention to the physical layout of the classroom as well as to educational activities. Students with these conditions may need changes to curriculum and help in physically navigating the educational environment.

In addition to modifying the environment and activities, these

students also need a teacher with a flexible teaching style who is able to integrate them as fully as possible into their classrooms. Traditionally, problem areas for integration have been recess, physical education, transportation and field trips (Pivik, McComas, & Laflamme, 2002). A collaborative approach among general education teachers, teachers of the deaf and hard of hearing, specially trained specialists in other disabilities, (e.g., orientation and mobility specialists for students who are visually impaired), and parents and families is crucial. The teacher's and parents' motivation, attitude, and teaching style are equally important: Those who have a flexible instruction style tend to adapt or equalize the curriculum or environment instead of assigning assistance to the student (Egilson & Traustadottir, 2009).

Assistive technology options might also be helpful for some of these students. Voice recognition and speech-to-text systems can help in situations where students do not have dexterity to write efficiently; eye-tracking devices are useful in situations in which there is limited hand mobility; alternative input devices are available for computer use, such as head wands, mouth sticks, mice with oversized trackballs, sticky keys, and adaptive keyboards. Screen magnification, resizing text, and changing font color can be useful for some students with visual impairments. Technology can help students with various gross motor impediments, too. Teachers can find devices that help hold materials for transport, and students can participate in sports with adaptations for physical needs. These devices can also be used at home and in the community.

Helping Teachers Teach and Children Learn

Teachers of deaf and hard of hearing students report that they do not feel prepared to meet the various needs presented by their students with multiple disabilities (Guardino, 2015). Looking at the functional impact of

these disabilities in the classroom and grouping students together with similar instructional needs may be an effective way to address these students' needs. Exploiting these students' similarities rather than focusing on their differences fosters effective instruction. Parents can advocate with teachers to focus on their child's instructional needs, rather than on a disability category or label.

Estimates range from about 30 percent to over 50 percent of deaf and hard of hearing students have more than one diagnosed disability (Guardino & Cannon, 2015). Environments, curricula, and even teaching style, for parents or teachers, are amenable to change—whereas most disabilities are not amenable to change and require accommodation. In classes in which we teach about deaf and hard of hearing students with additional disabilities, this functional impact classification system has helped students plan appropriate interventions for diverse classrooms.

Special education law requires an IEP, and this includes deaf and hard of hearing students. Elaborate customization for these students may be difficult given constraints on time, budget, staff, and resources. Using a functional impact classification—meeting students needs based on academic disabilities, cognitive disabilities, social disabilities, and physical and sensory disabilities—may help consolidate intervention within a teacher's or service provider's caseload and make teaching and learning an easier process. In the home, parents can use this system to help them choose interventions that will work for their children to be successful at daily living tasks and decisions.

The functional classification system frames how disabilities are most likely to affect the classroom and instruction (with the understanding that the impact can apply to more than a single functional area) as well as learning that happens in the home. Educators and parents can use these categories for thinking through and planning

appropriate instruction and supports on an ongoing basis throughout the year, working together to find the best system and the best balance for the child. This framework benefits new and pre-service teachers, by providing an explicit link between specific disabilities and the

functional impact on the classroom and instruction. It also benefits parents as they advocate for their children with a framework that focuses on abilities and needs rather than on satisfying legal requirements.

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