

ECSE: TRICKS OF THE TRADE

Making a Plan: Emergency Procedures for Students with Hearing Loss



I remember one of my early experiences with deaf students in an Early Childhood Program. The class usually went to recess together in an area enclosed by a fence. However, once spring arrived, we had the special opportunity for the children to ride tricycles on the open blacktop area. The teacher used her voice and whistle to keep most students in the appropriate areas. Guess who did not respond? The deaf students were having a great time riding their trikes toward the next town I think. When I finally got their attention by running after them waving my arms, they thought it was a fun game and pedaled even faster in the opposite direction, laughing out loud. Even though they were faster than me, I finally conveyed my message with stern looks and they returned. I learned something that day and want to share some thoughts with you about keeping your deaf and hard-of-hearing students safe.



- ◆ Set boundaries before activities. Use visual reminders for boundaries such as tape on the floor, orange cones, etc.
- ◆ Have an adult specifically assigned to the children with hearing loss for emergency procedures.
- ◆ Learn about the emergencies you practice for by looking at books and pictures about fires, tornadoes, earthquakes, etc. Teach the vocabulary to go with it.
- ◆ Practice drills before the actual drill.
- ◆ Role play inappropriate behaviors and appropriate behaviors.
- ◆ Have a lesson about real and pretend or practice. A student with hearing loss may not understand that this is a practice drill. A T-chart with pictures showing a real person and a cartoon person, or real money and play money, etc. is a good way to start learning this concept.
- ◆ Be aware of your facial expressions and body language. Your students need to understand that this is serious but not frightening.
- ◆ Make sure that your school has emergency signals that are visual. Your local fire department or the Red Cross can help you obtain these.

Our goal is to keep our students safe. Make sure to take the time to teach your students these important skills and vocabulary and have a safe school year!

by Laura Scott, Families First: Early Intervention Program, Lead Parent Advisor



From the Audiologist



In the October 2012 Deaf Education Newsletter provided by the Missouri School for the Deaf, the mother of a child with hearing loss eloquently described the frustration of explaining what her child hears, to teachers in the mainstream. She described the limited information that an audiogram and word recognition tests in quiet and noise provide in understanding a child's individual hearing abilities. The parent, the speech therapist and educators (in the mainstream or classrooms for deaf and hard of hearing) all need to know and understand what that child hears.

Reports from an audiologist should include an explanation about what the child perceives with and without technology (hearing aids or cochlear implants, etc.). What part of the speech spectrum does the child perceive? Even with the best technology, is the child able to detect the /s/ or /sh/ sounds? What about the rest of the English language vowel and consonant sounds? Knowing what the child perceives makes a big difference in how you teach a child to produce those sounds, as well as learn to discriminate between speech sounds. So included with the aided and unaided audiogram there should be a description of speech sound detection and how it relates to the audiogram.

The child discussed in the story was older and was given a test of 1-syllable words. A percentage of the correctly recognized words in quiet and noise is frequently reported for older children and adults. These results are helpful in knowing what an *older child* generally hears and recognizes in different listening conditions.

Speech perception and recognition testing is often overlooked for very young children, even though many tests are available.

Remind parents to ask the audiologist and/or speech language pathologist how they plan on testing their younger child's speech recognition. It should include a battery of tests that are age and language appropriate. It should include tests that the child is not expected to achieve 100% on so that the audiologist can monitor the child's progress and "auditory learning" of speech sounds and words.

More difficult tests can be added to the test battery as the child gets closer to "topping out" (getting 100%) on the easier tests. If progress is not being made, this could be related to a change in the child's hearing sensitivity (progression of hearing loss), and/or a need for reprogramming of the cochlear implant or hearing aids. Many of these tests were developed in the context of monitoring progress (and verifying effectiveness) with children receiving cochlear implants at very young ages, but they can be used with children who use hearing aids as well.



Individual test scores should not only be reported, but interpreted and compared to previous test sessions. For example, a child may score 100% on the CID Early Speech Perception Word Length subtest. This means that the child can discriminate between words of varying syllable length (ex., boot, airplane, birthday-cake) with a chance score of 33%. That skill is easy for him. He may then score 25% on the Spondee Subtest using 4 pictures of spondee words (airplane, ice-cream, etc.). A score of 25% on that test would mean that even with a small subset of words known to him, he is only scoring at chance level. This means that his word discrimination is quite poor. This score should be compared to a retest 6 months later. If he is then scoring 75%, then you would know that he is performing well above the chance level and making progress.



The frequency of testing younger children should also be discussed with your audiologist (although many speech language pathologists are also trained to perform these tests). A 3-year-old cannot tell us if the sound quality of his cochlear implant has deteriorated. We can provide checks on the functionality of the equipment (microphones, amplifiers, sound processors, etc.) but this is limited. We don't know how it sounds to the child. His aided audiogram may look exactly the same as it did 6 months prior, but what about speech understanding? Is it the same or getting worse? If a young child is provided consistent opportunities to use his speech and listen to the speech of others (in therapy and throughout the day), he should be making progress. It is my belief that an audiologist (and any therapist working with the child) should monitor a child's hearing technology (hearing aids and/or cochlear implants)

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as well as their ability to use it, every 3 to 4 months or more frequently if there are any questions or concerns. The youngest children, just beginning use of these technologies, should be monitored even more closely that first year. Ask the audiologist ahead of time, what is the plan for monitoring my child’s hearing and use of assistive technologies? How will these results be reported, so our family and the educators working with my child, will understand what that means? This requires frequent appointments that many parents find time consuming and expensive. Communicate with your audiologist on your goals for your child and

any limitations you might have in making frequent appointments. Most parents can be taught simple techniques to monitor the child’s hearing. Daily listening checks can be conducted with certain phonemes (individual speech sounds) that cover the approximate range of the speech spectrum. “Hearing diaries” can be effective tools for the parent to communicate abilities or any problems the child may be having.

The important thing is to **communicate** with the audiologist and speech therapist on monitoring the child’s abilities and progress. Ask the audiologist and speech therapist for written reports so that every member of the child’s educational team can understand and be informed.



By Lisa Geier, Ph.D., CCC-A, MOHEAR Project/Missouri State University/Missouri Department of Health and Senior Services

WHAT IS THE: ZONE OF PROXIMAL DEVELOPMENT?

Parents and teachers may be confronted with deaf or hard-of-hearing students who lag behind their same age hearing peers in some areas of academics. Sometimes these students receive instruction that is too far above their current knowledge and abilities to be achievable by them independently.

Russian psychologist Lev Vygotsky, coined the term “*zone of proximal development*” (ZPD) as part of his social developmental theory. His technical definition of the zone of proximal development was the gap between what the child can accomplish on his or her own and those accomplishments that could be achieved with adult guidance. That material which is closest to the child's current learning skills but also includes some material just beyond the child's current learning is considered to be within the zone of proximal development.

<http://www.reference.com/motif/Education/zone-of-proximal-development-classroom-example>

Here is an example:



Larry is a deaf student who is competent in third grade math. He can do it independently. He is ready to learn beginning 4th grade math. In this example, beginning 4th grade math is Larry’s zone of proximal development (ZPD). This is because with help Larry can perform beginning 4th grade math, but cannot yet perform it independently.

But Larry is 11 years old and is mainstreamed into a 5th grade math class. Larry lacks too much vital math knowledge and lacks too many math skills to be able to learn 5th grade math. This is true even with the help of a teacher and aide, an interpreter or CART, cochlear implants, hearing aids and an FM system. So even though Larry is 11 years old and in the 5th grade, his ZPD for math is still beginning 4th grade, and he needs to be taught at that level. Teachers often refer to the assistance they will provide such a student as “scaffolding”.

Larry's Independent Education Plan (IEP) should indicate his present level and his goals should reflect the progress he is expected to make within one year. If a disconnection between the present level and the goals is noticed by any member of an IEP team, it should be addressed by the IEP team so that expectations are reasonable and achievable.



WHAT DOES THE RESEARCH SHOW?

1. Even minimal hearing loss (16-25 dB) can affect academic achievement, and thus there are likely to be many students who need extra educational services but are not receiving them. (Spencer, 2010)
2. At least 35% and perhaps over 50% of deaf and hard-of-hearing students in the US have an additional, educationally significant condition or disability. (Spencer, 2010)
3. In general education classrooms, it is quite unlikely that the deaf and hard-of-hearing students understand language as well as their hearing peers. The teacher must check with them frequently to ensure they understand (Spencer, 2010)
4. Hearing aids, cochlear implants, FM systems and other technologies help children gain access to sounds in their environment, including speech, but none of them provide access equal to that of normal hearing. (Marschark, 2012)
5. Parents and Teachers often overlook the overwhelming amount of learning that takes place in informal interactions and activities both in and out of school. Often this type of learning is not accessible to deaf and hard-of-hearing children. (Marschark, 2012)
6. Sign language does not interfere with the development of spoken language. The benefits of knowing two languages over one are well documented. (Marschark, 2012)
7. It is essential that deaf children acquire both language fluency and skill in visual learning strategies. (Marschark, 2012)
8. Adults and students (either deaf or hearing) that are fluent in ASL tend to have better visual spatial memory than hearing students, while oral deaf and hearing students tend to have better sequential memory. (Marschark, 2012)



Marschark, M. &. (2012). *How Deaf Children Learn*. Oxford University Press.

Spencer, P. &. (2010). *Evidence-Based Practice in Educating Deaf and Hard-of-Hearing Students*. Oxford University Press.

IS YOUR STUDENT WITH HEARING LOSS, "PRETENDING TO UNDERSTAND?"

"Ashley explained how hard social life was for her in public school. She'd learned that people don't like being asked to repeat themselves, that girls say, "I'll tell you later," then never do. She learned that people thought she was rude, and she desperately wanted not to be rude, so she nodded and smiled a lot, whether she understood someone or not."

(Gray, L. (2012, September). *Ashley Yount Has Something to Say*. *Deaf Life*, pp. 31-40.)



The above quote is about the experiences a High School junior with a cochlear implant had in a mainstream educational setting. While it focuses on a common problem that students who are deaf or hard-of-hearing have in communicating with hearing peers, it also an example of how they too often cope in classrooms. They pretend to understand when they really don't.

This lack of understanding can have various causes, including: environmental (noisy environment or the student can't clearly see the speaker's face or can't see the interpreter), technological (the hearing aid needs a new battery, or the FM system microphone is turned off), content (unfamiliar terminology), or maybe the student wasn't paying attention. It is very important for teachers to frequently check with their students (both hearing and deaf or hard-of-hearing) to make sure they understand.

Why not make it a habit to ask students to summarize in their own words what you said?



MSD Audiology Services

Dr. Alison Burco administers free hearing evaluations to Missouri children, from birth through age 21. She is available Monday-Friday for testing and consultations concerning hearing aids, FM systems, cochlear implants and other issues related to deafness. Dr. Burco can be contacted at the MSD Resource Center on Deafness.

Phone: # 573-592-2543, voice or TDD or Email: rcd@msd.dese.mo.gov



FAMILIES FIRST

EARLY INTERVENTION PROGRAM



Parent Advisors provide weekly home visits to families with deaf or hard-of-hearing children from birth through 8 years of age. Parent Advisors offer the family information, support, and encouragement, as well as provide ideas for strategies parents may use to help a child develop in the areas of language acquisition, communication, and social and emotional skills. All services are provided free. Families must live in Missouri to qualify.

For more information: Phone: (573) 592-2543; E-Mail: ff@msd.dese.mo.gov

M.S.D. Resource Center on Deafness

Free Services

- Information about hearing loss and appropriate educational services for deaf or hard-of-hearing students
- Audiological exams and APD testing for Missouri children birth through 21
- School visits and consultation by a deaf educator
- Inservice presentations for schools
- Language assessment for deaf and hard-of-hearing students unable to be appropriately tested in their home districts

Rental Program

- Annual leases of personal and group amplification systems to schools

Phone: 573-592-2543; Email: rcd@msd.dese.mo.gov



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