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Right: Effective learning strategies allow educators to create a more inclusive environment for deaf and hard of hearing children on the autism spectrum.

Increasing Social Awareness for Deaf and Hard of Hearing Children on the Autism Spectrum: Innovative Strategies

By Patrick Graham, Raschelle Neild, and Aaron Shield

For families and educators, understanding and working with children who experience a combination of deafness and autism spectrum disorder (ASD) can be challenging. Yet both understanding and work are crucial. For children with ASD to succeed, parents and educators need to understand them and to be able to work together to implement successful educational strategies. These strategies fall into two categories: 1) strategies for improving social interaction, primarily focusing on communication; and 2) strategies for incorporating the students' interests, which may be intense but restricted (American Psychiatric Association, 2013). What this means is that some children can be very focused on a few specific interests so educators can modify strategies to use each child's interests to introduce new knowledge and teach various skills.

Many children with ASD experience characteristics such as over-reliance on adults, difficulty transitioning, restricted interests, repetitive behaviors and play, and a need for structure and predictable routines (American Psychiatric Association, 2013; Bryan & Gast, 2000; Dawson, Meltzoff, Osterling, & Rinaldi, 2008). These characteristics are broad and varied, and they can be challenging—especially for students who exhibit more severe manifestations of ASD.

Unfortunately, there is not enough research on teaching strategies to support deaf and hard of hearing children with ASD. Guardino (2015) examined teacher preparation programs in deaf and hard of hearing education and saw that most of these programs do not include coursework or significant information about deaf and hard of hearing students with additional disabilities, which is problematic given that the Gallaudet Research Institute (2013) reported that 40-50 percent of deaf and hard of hearing students have an additional condition and 1 in 59 American deaf children have a diagnosis of ASD (Szymanski, 2012). Luckner and Carter (2001) report

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that teachers need to be competent in teaching strategies, collaboration, and modifying the classroom environment to be effective teachers for children who are deaf or hard of hearing with additional disabilities. Ewing (2011) notes that pre-service teachers need more development in cooperative learning strategies, differentiated instruction, and self-determination. In light of this, it can be difficult for educators to ensure appropriate and effective inclusive education for every child (Walter-Thomas, Korinek, McLaughlin, & Williams, 2000).

We encourage helping students to develop supportive relationships and ensuring they have a sense of belonging and being a part of an inclusive community. To do this, we, as educators, must develop a “toolbox” of strategies and frameworks of practice. The information in this toolbox will help teachers who have deaf or hard of hearing children with ASD in their classrooms. These approaches are inclusive; they work for most children. They include: routine explanation, video modeling, peer-to-peer social interaction, and differentiated instruction.

Strategy 1: Routine Explanations

Focus on the child’s ability to generalize. Generalization allows an individual to complete an activity in different settings, with different people, at different times, and with different materials. It allows for the transfer of learned information to new experiences. The child’s generalization abilities can be built up through the use of specific social stories, incidental language, and clear rationales for expected behaviors.

The classroom is filled with a sequence of routines every day: arrival, lining up, preparing for and eating lunch, and turning in assignments. The same is true for the child’s home in which the sequence of routines includes getting up; eating breakfast; preparing for departure to school or a program; and, in the afternoon, homework and, later, bedtime. Each routine enlists a common series of steps from beginning to end, and these steps must be followed sequentially to ensure the goal is achieved. Teaching these skills in the context of routines promotes generalization and self-management while at the same time avoiding confusion and the stress of making multiple

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changes (Janzen, 2003).

Still, it is not enough to implement the strategy of keeping routines identical. Teachers should address the reasoning behind the routine, and the underlying reason should also be made clear to the child. Repeating the reason behind

each routine will help children internalize

the routines faster; further, children will begin to understand the concepts behind the actions and to clarify expected behaviors (Thrasher, 2014). For example, teachers may incorporate the strategy of line formation as students enter or leave the classroom. As this happens—as the routine is established—teachers can explain to students that they line up because they need to be safe, and forming lines makes it safer and quicker for all students to get from point A to point B. The same strategy holds for other activities in the classroom, such as turning in assignments. Assignments should be returned to the same location, and teachers should explain that the reason is ease of access to all of the assignments; the teacher or student does not have to look all over the place for specific paperwork. This may seem obvious, but it is not obvious to all children. Teachers need to explain why specific behaviors are established and expected.

Strategy 2: Video Modeling

Video modeling allows students to watch a short video of an expected behavior; imitate the behavior; and rewind, re-watch, and repeat the behavior until it is internalized. The video shows the same action repeatedly without the kinds of variations that complicate real-life situations. Watching it can support students who have difficulties with social behaviors (e.g., maintaining eye contact). Shukla-Mehta, Miller, and Callahan (2010) explain

that video modeling can “allow a student to see the appropriate actions for performing the target behavior immediately prior to performing the skill, increasing the probability of successful performance.” Video modeling can be used both at home and in the classroom.

Thrasher (2014) and Shukla-Mehta et al. (2010) encourage educators to consider three different forms of video modeling. These forms include:

1. **Basic modeling video**—These videos are created by educators or peers to show specific skills, such as making eye contact, passing out books, or raising hands. The action in the video is done in the same way each time, and students view the videos repeatedly.
2. **Self-modeling video**—These videos are often created in response to basic video modeling. Students film themselves as they perform the skills they’ve learned. An effective assessment tool, these videos can help educators evaluate how well the students are learning and internalizing socially appropriate behaviors.
3. **Point-of-view modeling video**—These videos allow the students to see the behavior modeled correctly and gain access to the point of view of the person on the receiving end of the behavior. For example, a point-of-view video could show a student raising a hand in the air and then a smile appearing on the teacher’s face, or students lining up and passing smoothly down the hall without any stops or disruptions to other people. Point-of-view modeling can also show what happens when the behavior is not correctly executed and used as negative reinforcement for a desired behavior. For example, the video could show students who deviate from the line as they walk down the hall, bumping into other people and being late for class. Thrasher (2014) suggests that students can grasp the point of the videos with only 40 to 60 seconds of video modeling.

When videos are presented to the students repeatedly, they can be helpful for internalizing social and academic behaviors and provide opportunities for students to practice their skills. Educators can send these videos home to parents, and parents can use the videos to help their children practice the same skills at home. Videos can be posted and stored on the Internet, and students can also access them through simple downloads and file sharing.

Strategy 3: Peer-to-Peer Social Interaction

Significant research exists on hearing individuals with ASD and social skills, peer groups, and friendships (Frankel, 2005), but only limited research has been done related to individuals who are deaf or hard of hearing with ASD. While most children learn about relationships and the unspoken rules that govern social relations through observation, deaf and hard of hearing

children with ASD, like hearing children with ASD (Laugeson et al., 2009), often need additional instruction, guidance, and practice.

By the end of first grade, most children have adapted to the school routine, classroom rules, schedules, and environment, and they are successful at navigating the informal environments established by their peers (Frankel & Whitham, 2011) as well as the more structured environment of the classroom. It is at this point that children with ASD can begin to feel isolated as they repeatedly break rules they are unable to remember, do not know, or misinterpret, resulting in social isolation. Children who are ignored by their peers can become aggressive and increase inappropriate behaviors while withdrawing from social situations and peers even more (Frankel & Whitham, 2011).

In order to break the cycle of inappropriate behavior, isolation, and exclusion, multiple aspects of relationships must be addressed. The focus should be not only on improving the social skills of the child with ASD but also on educating the other students in the classroom about children with ASD and their experiences (Buron & Wolfberg, 2014). Through alternating the skills, experiences, and perceptions of every child in the environment, it is possible to reduce and even eliminate confusion and misunderstandings for all. It also allows a new classroom and school culture to emerge—a culture that is inclusive and unique in its ways of relating, communicating, and fostering relationships (Burn & Wolfberg, 2014).

Peer support groups like Circle of Friends or Friend 2 Friend, national social and language skills programs that offer valuable support to students with special needs, can assist with making meaningful home, school, and community connections. These support groups have attempted to foster mutual relationships, develop understanding, and build capacity for acceptance and empathy in peers, siblings, and classmates (McCracken, 2004). Both programs use a systematic researched-based approach to educate both individuals with ASD and their peer groups in an inclusive environment (Buron & Wolfberg, 2014) and to facilitate the inclusion of children with disabilities in the community.

During peer-to-peer interactions, facilitators may coach typically developing peers on how to effectively interact with their peers with ASD. This often includes encouraging a typically developing peer to respond to certain stimuli by making specific statements. For example, if an individual with ASD tries to push ahead in line or snag a ball out of turn, a typically developing teen can explain, “It’s my turn now, but you will be next.” If a teen with ASD is irritating a typically developing teen, the typically developing teen can learn to say, “I don’t like that. Please stop.” Thrasher (2014) explains that explicitly teaching statements such as these to typically developing peers allows them to engage in shared experiences with individuals with ASD; they are not dependent on a

student aide to effectively interact.

Strategy 4: Differentiated Instruction

Differentiated instruction can be defined as “a process to approach teaching and learning for students of differing abilities in the same class. The intent is to maximize each student’s growth and individual success ...” (Hall, 2002). Teachers who use differentiated instruction must have a strong understanding of the content and curriculum. They must be able to ask themselves how to modify the curriculum and instruction so that each student can be successful and achieve

Six Tips for Teachers

WHO HAVE DEAF OR HARD OF HEARING STUDENTS WITH ASD

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In order to be effective with deaf and hard of hearing students with ASD, try the following:

- 1 Ensure your explanations are concrete and relatable.** Avoid excessive details. Be clear and use video modeling as a consistent repetition of expected behavior.
- 2 Provide clear and consistent routines.** If routines need to change, let your student know in advance; provide repeated instructions and outline expectations.
- 3 Utilize peer-to-peer social groups to outline routine expectations.** Use prompts to facilitate conversations and repeat sentences for emphasis if needed.
- 4 Make a video to demonstrate appropriate behavior interaction.** Model the behavior you would like to see in your student, and make another point of view video to show the reaction they will get for the modeled behavior. Walk through the video with your student, pointing out expectations, and repeat the video if necessary. Send the video home to parents and explain expectations.
- 5 Do not use open-ended questions.** Be direct with students. Break down steps if necessary.
- 6 Use specific interests to teach general concepts and social skills.** A child’s interests can be used to encourage turn taking, address personal hygiene, and complete tasks.

the learning outcomes needed to move on to his or her next goal (Tomlinson, 2016). In a classroom in which a teacher implements a variety of strategies to differentiate instruction, teachers and students become partners in the learning environment.

There is no one way to differentiate a classroom for students, but there are several key things to consider. These do not have to apply to each student in every lesson; however, they should be considered as teachers plan their classes, develop students' Individualized Education Programs, and modify their instruction and assessments for their students.

Differentiated instruction can seem overwhelming at first. Teachers should start small, keep things manageable, work with colleagues, and recognize what goes well. Implementing differentiated instruction should proceed slowly to provide multiple approaches to content, product, and process. To begin to implement differentiated instruction (Tomlinson, 2016), teachers should:

- Attend to student differences. A teacher should unconditionally accept students for who they are and hold them to high expectations.

- Understand that assessment and instruction are inseparable, ongoing, and related to each other. The information gained through assessment can provide teachers with information about students' interests, which can impact learning. Assessments should occur periodically; they should not be held to the end of a unit when it is time to move on.
- Modify content, process, and product. By thoughtfully using the information gained in assessment and instruction (content), what students are learning (process), and activities to support the learning (product), teachers can modify all aspects of student learning.

Reflections on Strategies

When teachers provide these four strategies—the use of generalized behaviors, video modeling, peer-to-peer support, and differentiated instruction—to deaf and hard of hearing students with ASD, they can more effectively reach these students in their classrooms. These effective learning strategies allow educators to create a more inclusive environment for deaf and hard of hearing children on the autism spectrum and, as a result, increase their access to the academic and social worlds.

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