PROJECT OIC CAPSTONE PROJECT
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BEHAVIOR STRATEGIES

FOR TEACHERS OF THE DEAF AND HARD OF HEARING

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Language, communication, and behavior are uniquely intertwined. When addressing challenging behaviors in Deaf and Hard of Hearing (DHH) students, language development should be a primary focus.

> *"...hearing loss by itself is not a risk factor for behaviour difficulties... Hearing loss is related to an increased rate of behaviour problems only because hearing loss is itself a risk factor for low language competence." (Stevenson et al., 2010).*

This resource guide aims to provide an overview of language deprivation in DHH students, discuss the effect it has on communication and behavior, and describe how those behavior challenges can be addressed in a way that is effective while also being linguistically and culturally appropriate. Additionally, this guide addresses the importance of communication and collaboration with all members of a DHH students educational team.

Meet the Team

I am a graduate student at the University of Arizona pursuing a masters in Special Education: Deaf and Hard of Hearing. I completed my Bachelor of Science in Early Childhood Education (ECE) at Western Oregon University (WOU). I've been teaching DHH in the ECE area in Washington. I am deaf and use ASL (American Sign Language) since it's my first language. I am very passionate about working with DHH students as a Teacher of the Deaf. I've grown up experiencing all the language and communication barriers in public school. I completely understand the challenges of understanding academics through a second language. I am a strong believer in providing bilingual education, ASL and English. I believe ASL should be used for communication and instruction. English is for reading and writing. This is to help DHH children to have both language access.

Eryn Murphy

I'm a graduate student in the Special Education: Applied Behavior Analysis program at the University of Arizona. I earned my bachelor's degree in mild to moderate disabilities from the University of Arizona. I am a high school special education teacher working with students with autism and other disabilities. I strive for all students having equal access to education and opportunities within the school setting. I believe that all behavior is communication and want to help all teachers understand the behavior needs of their students.

Maddie Karcher

I'm a graduate student in the Special Education: Deaf and Hard of Hearing (DHH) program at the University of Arizona, and I earned my bachelor's in Communication Sciences and Disorders from the University of Missouri. Before starting my graduate studies, I worked as a sign language interpreter in K-12 educational settings with DHH students. I'm passionate about ensuring all students have access to equitable education and meaningful learning opportunities. I believe collaboration across disciplines is essential to creating inclusive and supportive learning environments for DHH students.

Abigail Teague

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Language Deprivation

What is Language Deprivation?

Language deprivation is a delay or lack of age-appropriate fluency in any natural language, spoken or signed, during the early years when the brain is most ready to learn it. This can lead to delays in communication and overall development (National Association of the Deaf, 2024).

The Causes of Language Deprivation

DHH children may not hear enough spoken language clearly, even with hearing aids or cochlear implants. If they also aren't given access to sign language, they may not get any language input they can fully understand. Many hearing parents, often lacking accurate information about deaf children's language needs, are influenced by advice from medical professionals who may discourage the use of sign language and promote speech-only approaches, sometimes suggesting sign language only as a last resort (Humphries et al., 2014).

Effects of Language Deprivation

Reminder : "Language deprivation is a preventable condition that results from lack of access to a fully accessible language during the critical period of language acquisition."
— Glickman & Gulati, 2003

Effects

- Without early access to a full language, DHH children may have trouble learning and understanding their emotions. This can affect school success, self-esteem, and relationships throughout life. "The impact of [linguistic] neglect is likely to be significantly higher for deaf children, who have reduced access to language, are often isolated socially, and are already at risk for worse psychological and cognitive development that can affect academic disparity" (Humphries et al., 2016).
- Long-term effects may include compromised mental and physical health, lower quality of life, and in severe cases, a combination of these symptoms. Not providing full access to language can significantly contribute to mental health challenges, as full language development is essential for supporting a child's social-emotional growth (Marks, 2020).

Educational Impact

Education involves several foundational skills that every child is expected to have developed before entering a formal learning environment. These include:

- Fully developed primary language
- Communication skills (Expressive and Receptive)
  - The ability to request wants and needs
  - The ability to express emotions
  - The ability to respond to questions
  - The ability to engage in turn-taking conversation
- Social-Emotional (Self-regulation and social interactions)
- Pre-Academic Skills (Problem-Solving, attention, focus, and early literacy and numeracy)

Critical Components of Teaching DHH Children

How can Language Deprivation affect a Child's Social-Emotional Development?

- When no language is fully developed, a child who is deaf or hard of hearing (DHH) can struggle to build social-emotional skills.
- Self-regulation and social interaction, key parts of social-emotional development, require a fully developed or developing language.
- Delays in developing and teaching language, communication, and social-emotional skills beyond the critical early period (birth to age 3) can severely impact DHH children and may lead to behavioral challenges.
- DHH children often require more extensive, repetitive support in developing communication, vocabulary, and writing skills than their typically hearing peers in general education classrooms.
- Providing this extra support and repeated practice can influence DHH children's behavior.
- DHH children may easily become frustrated, overwhelmed, confused, fatigued, or unmotivated. These feelings can escalate into more severe physical or emotional behaviors.

Behavior Intervention Strategies for DHH children

Environmental changes

Teach a replacement behavior

Adjust the contingencies

Environmental changes

Student Seating

- Changing the seating arrangement can affect student behavior
- In rooms where sign language is used it is beneficial to utilize a horseshoe or circular seating arrangement because this allows students to see each other when communicating.
- The best seating for students with a hearing loss is one that is consistent and presents with minimal distractions.

Organization of Materials and lighting

- When materials are organized and accessible to students, fewer disruptive behaviors will occur
- A well-organized classroom results in less downtime and fosters more time for students to be engaged.
- Deaf and hard of hearing students rely on their vision to communicate, therefore sufficient lighting and controlling excessive lighting in the classroom is important to increase attention and academic engagement.

(Guardino & Anita, 2012)

Teaching a Replacement Behavior

Why is behavior occurring?

In behavior analysis there are primary functions of behavior. This means why a behavior is happening.

Functions of Behavior:

Attention:

Behavior can be maintained by access to attention. Students may be doing certain behaviors to get access to attention. This attention could be from teachers or classmates.

Example of attention seeking behavior:

- A student raising their hand to be called on
- A child blurting out for the teacher to come over

(These behaviors are both attention seeking; but one of the two is more socially acceptable)

Escape:

Behavior can be maintained by escape. Students may engage in certain behaviors to escape or avoid certain tasks. Students may behave in a certain way to get out of doing something they don't want to do.

Examples of escape seeking behavior:

- A student refusing to participate to get out of doing the work
- A student engaging in physical aggression or property destction to get removed from the room and this results in them escaping the task presented to them

Tangibles:

Behavior can be maintained by access to tangibles. This means someone is engaging in a behavior for access to something.

Examples of tangible seeking behavior:

- A child yelling or crying to get access to a snack
- A student hitting another student to get the desired toy they want

Sensory:

Behavior can be maintained due to sensory. It is described as getting some source of sensory stimulation.

Examples of sensory seeking behavior:

- A student itching a bug bite
- Someone fanning themselves on a hot day
- A student rocking back and forth

Teaching a Replacement Behavior

After figuring out the possible function of behavior, the team must identify an appropriate replacement behavior to teach the student.

Important things to remember:

- Replacement behavior needs to be functional and serve the same purpose as the target behavior.
- Reinforcing the replacement behavior when the child performs it is important to increase the likelihood that it occurs.

Examples of Target behaviors and turning them into replacement behaviors

Target Behavior	Replacement behavior
The student yells out during class.	The student raises his hand to be called on during class.
The student leaves his seat when the teacher is instructing the class.	The student will stay in his seat when the teacher is instructing the class.

Adjust the Contingencies

What are contingencies?

Contingencies mean the relationship between a behavior and its consequence. More specifically behaviors are contingent on reinforcement (or punishment) that is delivered after the behavior occurs.

Strategies for adjusting contingencies within the classroom:

- Withhold the consequence that previously reinforced the target behavior
- Provide the consequence to the new replacement behavior that was taught to the student
- If the target behavior occurs it is important to withhold the consequence that previously reinforced the behavior

Important Behavior Terms to Know

Antecedent: What happens right before a behavior occurs.

Behavior: Any action or response that can be observed.

Consequence: What happens right after the behavior occurs.

Reinforcement: A response to behavior that increases the future occurrence of that behavior taking place.

Punishment: A response to behavior that decreases future occurrences of that behavior taking place.

Replacement behavior: A behavior that is taught to replace the target behavior. The replacement behavior must serve the same function as the target behavior for it to work effectively.

Target behavior: A specific behavior being selected for change. Some people may refer to this as the "problem behavior".

(Cooper et al, 2019)

Communication & Collaboration

Why is it important?

There are often many stakeholders in a DHH student's education.

Potential Team Members

- Teacher of the Deaf (TOD)
- Speech-Language Pathologist (SLP)
- General Education Teacher
- Special Education Teacher
- ASL Interpreter
- Administrator
- School Psychologist
- Occupational Therapist (OT)
- Physical Therapist (PT)
- Board Certified Behavior Analyst (BCBA)
- Registered Behavior Technician (RBT)
- Parents/Caregivers
- DHH Student

Collaboration provides students with a diverse set of therapeutic approaches, allowing them to learn and implement techniques from multiple disciplines. This integrated approach not only enhances their skills and understanding but also improves communication and teamwork, fostering a more holistic and effective treatment strategy for the student (Starry et al., 2022)

Shared Goals

What Are Shared Goals?

Shared goals are collaboratively developed IEP goals created by multiple professionals that focus on supporting a student's participation in meaningful school activities (Barreca et al., 2023).

Why Are They Beneficial?

- Promote a whole-child approach
- Reduce fragmented services
- Encourage collaboration among team members
- Help students make functional, measurable progress in real-life contexts

How to Make Shared Goals Successful

Build Team Trust
Create a respectful space where everyone understands and values each other's roles and expertise.

Use a Common Language
Align around shared frameworks.

Write One Meaningful Goal
Collaborate to create one functional, student-centered goal all team members support.

Work as a Team
Plan together, coordinate services, and regularly share updates on progress.

Prioritize Communication
Set aside time for regular check-ins and use shared tools for collaboration.

Include Teachers & Families
Ensure everyone understands the goal and knows how to support it.

Review and Adjust
Check if the goal is working, reflect on progress, and revise supports if needed.

Advocate for Structures That Help
Ask for time, training, and systems that make shared goal work possible.

(Koenig & Gerenser, 2006; Barreca et al., 2023)

Challenges and Solutions in Collaboration

Time Constraints

- Use shared digital tools to track progress and updates.
- Schedule regular brief “touch base” meetings
- Assign a point person to summarize and share notes from meetings for those who can’t attend.

Role Confusion

- Clearly define each team member’s responsibilities
- Create visual schedule showing who does what and when.
- Provide training or team-building opportunities to increase awareness of others’ roles.

Differences in Opinion

- Focus on shared student goals
- Host meetings where team members explain their rationale.
- Integrate methods that complement one another (e.g., combining ABA strategies with speech therapy goals).
- Respectfully compromise by blending approaches and evaluating effectiveness.
- Actively listening, and seek to understand before responding.

Parental Involvement

- Provide accessible materials in the family’s preferred language and mode of communication.
- Offer flexible IEP meeting times or virtual options.
- Invite parents to contribute strengths and concerns in advance via questionnaires or phone calls.
- Use clear, jargon-free language during meetings and check for understanding.

(Koenig & Gerenser, 2006; Barreca et al., 2023)

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