



LANGUAGE CONNECTION

THE JOINT BENEFITS OF PRESCHOOL INCLUSION

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OVERVIEW

This project was a small scale pilot study conducted by the Melinda Webb School (MWS) at The Center for Hearing and Speech (CHS) to determine the appropriateness of early childhood inclusion with children who have hearing loss. Data was collected to determine the benefit of inclusion based on age, ability level, and social skills. The project consisted of 18 bimonthly visits to an area early childhood program over the 2015-2016 school year. Students who participated ranged in age from 18 months to 6 years old and were grouped according to grade level in Toddler, Pre-Kindergarten, and Kindergarten classes. Participants included 42 children with hearing loss and 45 children with typical hearing. Eight Master's-level teachers of the deaf, six teaching assistants with experience in deaf education, and six early childhood teachers facilitated the program.

GOALS

- Collect data to determine the benefits and challenges of an inclusion classroom setting
- Increase the amount of incidental language students with hearing loss acquire from same-aged peers in a classroom setting
- Promote acceptance by exposing typically developing children to a diverse population of children with disabilities
- Educate professionals about listening, spoken language, and literacy development in early childhood
- Raise awareness of oral deaf education and listening and spoken language options in children with hearing loss
- Provide teachers of the deaf with frequent models of children with typically developing language to assess readiness for inclusion in a general education classroom

PROJECT IMPLEMENTATION

PLANNING

Melinda Webb School teachers reviewed the partnering school's curriculum and thematic units to plan appropriate and meaningful activities for all participants. Each lesson included developmentally appropriate language targets which were differentiated based on present levels of student language performance. Each lesson included enrichment, intermediate, and intervention level goals. Lessons were shared with the partnering school's grade-level teachers before each visit. MWS students participated in similar thematic units prior to each visit to provide them with exposure to thematic vocabulary and specific syntactic structures. MWS teachers were responsible for providing all instructional materials for each visit. Materials were transported on the bus with students and teachers.

IMPLEMENTATION

During each visit, MWS teachers facilitated literacy, language, and experience activities in small groups. MWS teachers collaborated with the partnering school teachers to determine appropriate groupings based on language, academic ability, and behavior. Student groupings remained the same each visit, and teachers were assigned to one group for the length of the project.

Toddler students were split into three rooms. Two MWS teachers led a small group of four to five students. The students participated in two 15-minute language activities followed by recess with a larger group of typical-hearing children.

When MWS Pre-Kindergarten students arrived at the partnering school, they joined their hearing peers at recess. Following recess, all participating pre-kindergarten students were placed into two classrooms. Five MWS teachers were split between the two rooms. Each MWS teacher led a small group of three to four students. The students rotated through short language experience activities. Teachers prompted for specific language targets and facilitated conversational language.

When MWS kindergarten students arrived at the partnering school, they joined their hearing peers at recess. All kindergarten participants transitioned into two classrooms after recess. One MWS teacher and one general education teacher was assigned to each room. Each MWS teacher led a group of 12 students while the general education teacher supported instruction. The lesson included a read aloud, short whole-group activity, and a hands-on experience. Teachers encouraged whole-group participation and facilitated social interaction.

LENA

The Language Environment Analysis System (LENA) is a recording and processing device that a variety of professionals may use to collect, manage, and analyze recordings of children. The LENA recorder is easily worn by being inserted into the pocket of a specially designed shirt or vest. While it is turned on and worn by a child, it records and estimates the number of adult words spoken, the number of words spoken by the child, the number of conversational turns the child engages in, as well as the quality of the child's auditory environment.

<https://www.lenafoundation.org/>

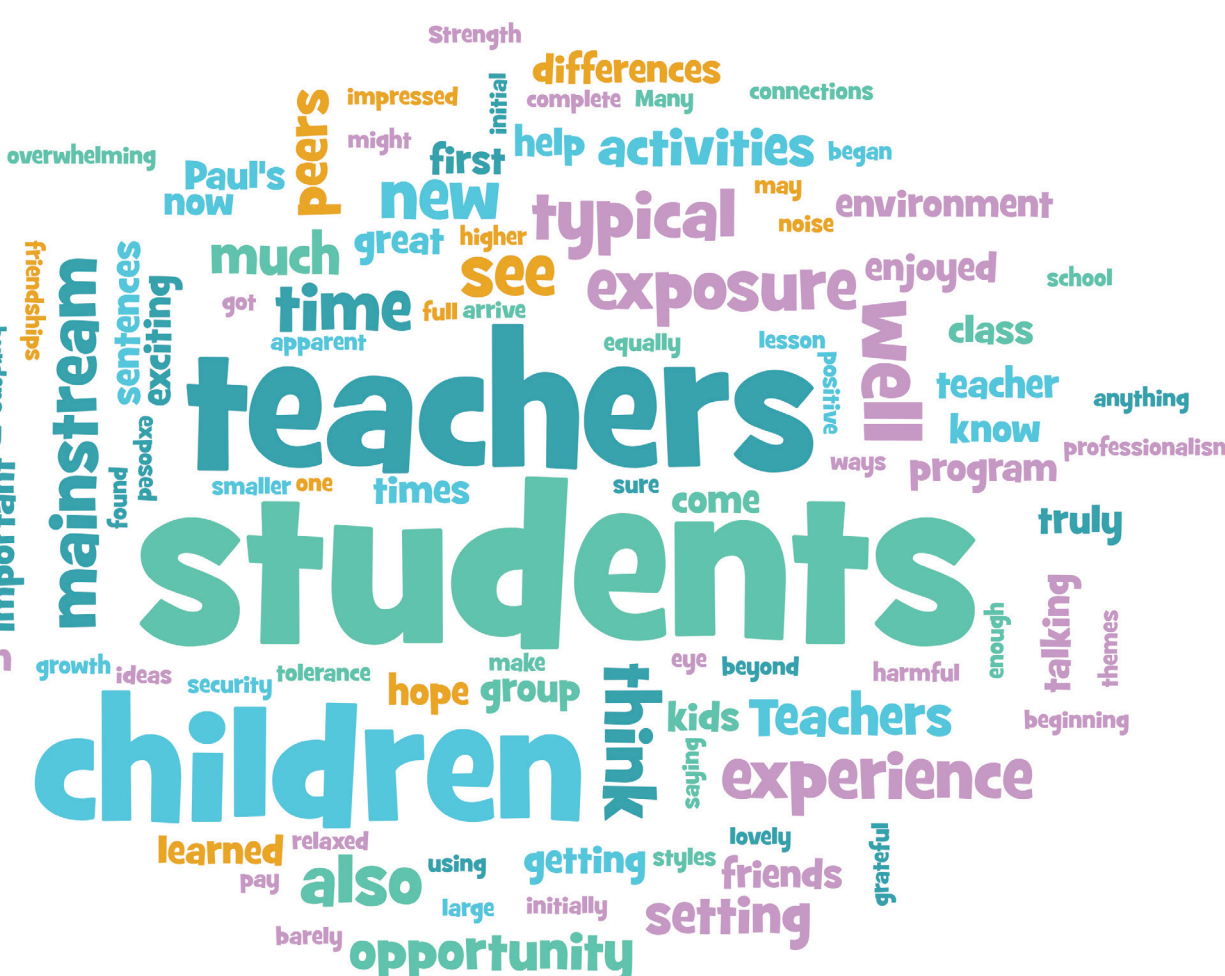
We chose to use the LENA device to identify measurable differences between a self-contained oral classroom and a general education classroom. A small set of students was selected to represent our school's population. We tracked ten students with a wide range of language abilities throughout the program (four toddlers, four preschoolers, and two kindergartners). Recordings were obtained from two to four students each visit to the partnering school and were compared to recordings of similar activities done at the Melinda Webb School.



QUOTES

"It has been great (for the partnering school) to see differences among children. MWS students had a chance to explain their hearing loss, make friends, and bring new concepts home. This was a good segue to a typical setting. I believe it would have been a culture shock to go (to a new school) without learning to take instruction from other teachers."

—Melinda Webb School Pre-Kindergarten Parent



"This exposure to diversity in a safe, routine way has encouraged in all of us at St. Paul's School a subtle shift in compassion and tolerance. We have been truly blessed by this opportunity."

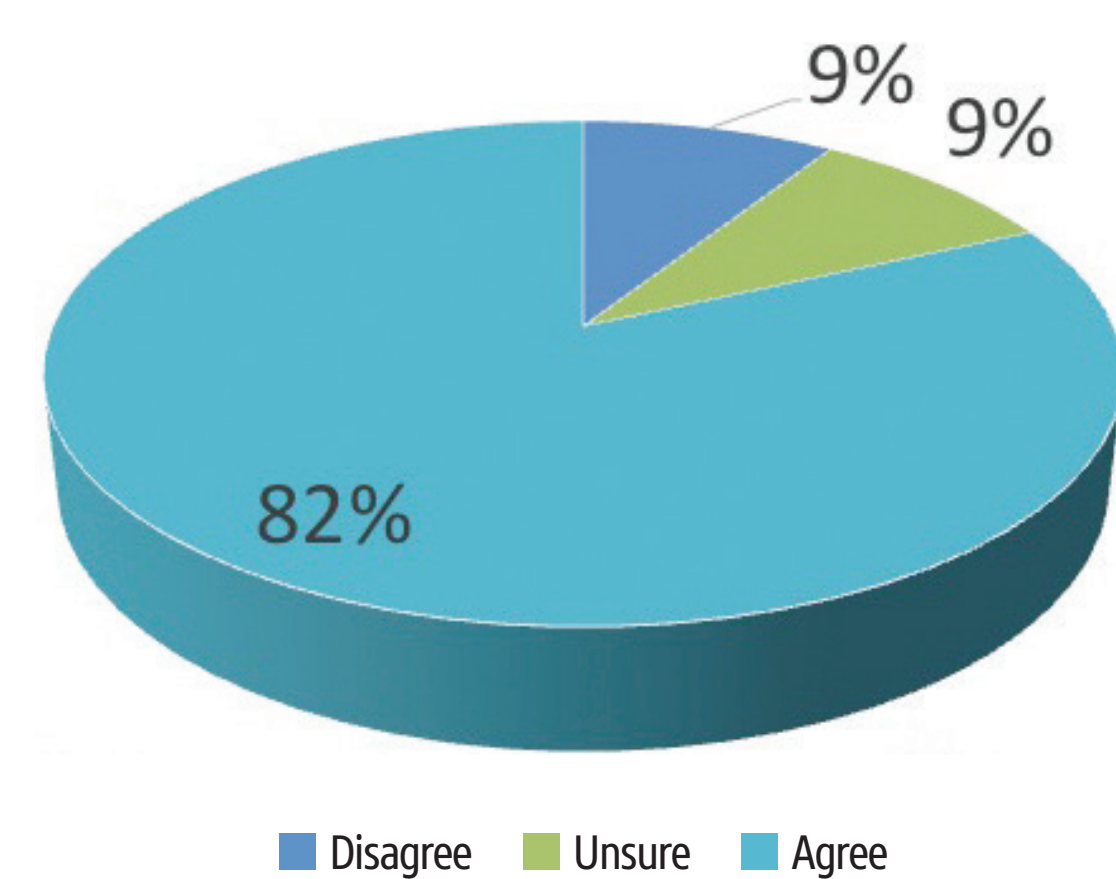
—Debra Fischer, St. Paul's Preschool Director

"The program was a great opportunity to expose (Melinda Webb School) students to a typical size classroom with typical-hearing peers. I found this experience to be beneficial for our students and teachers."

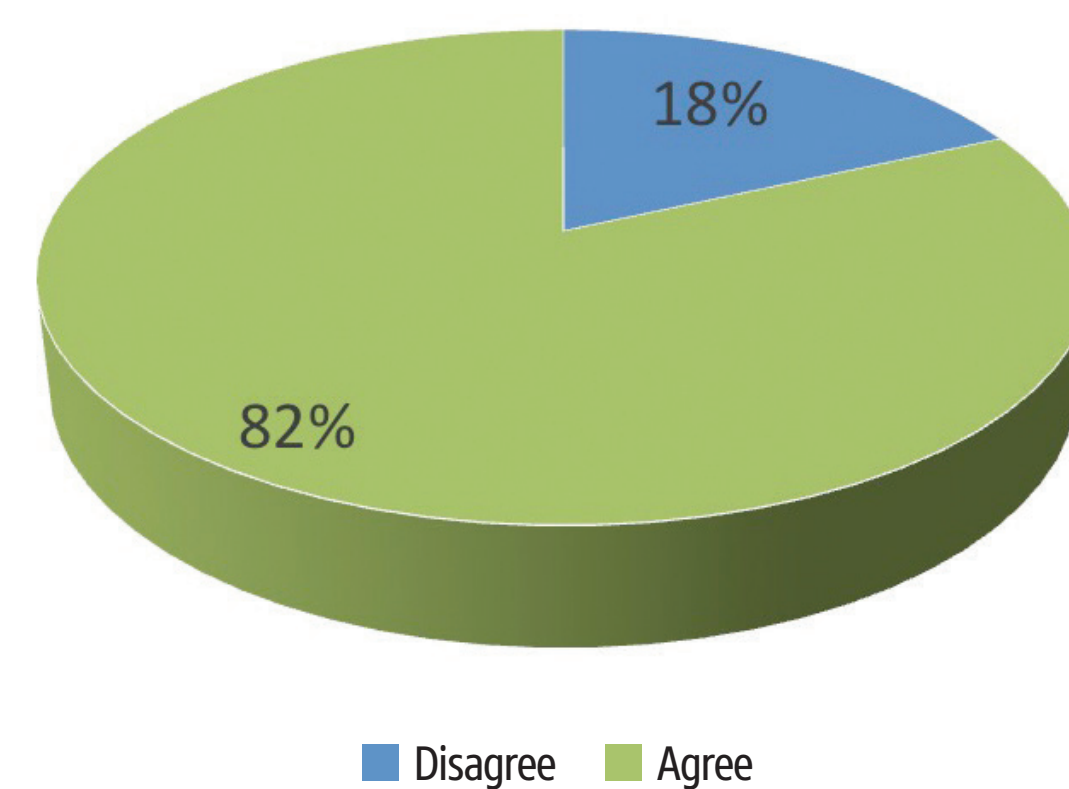
—Melinda Webb School Teacher

TEACHER SURVEYS

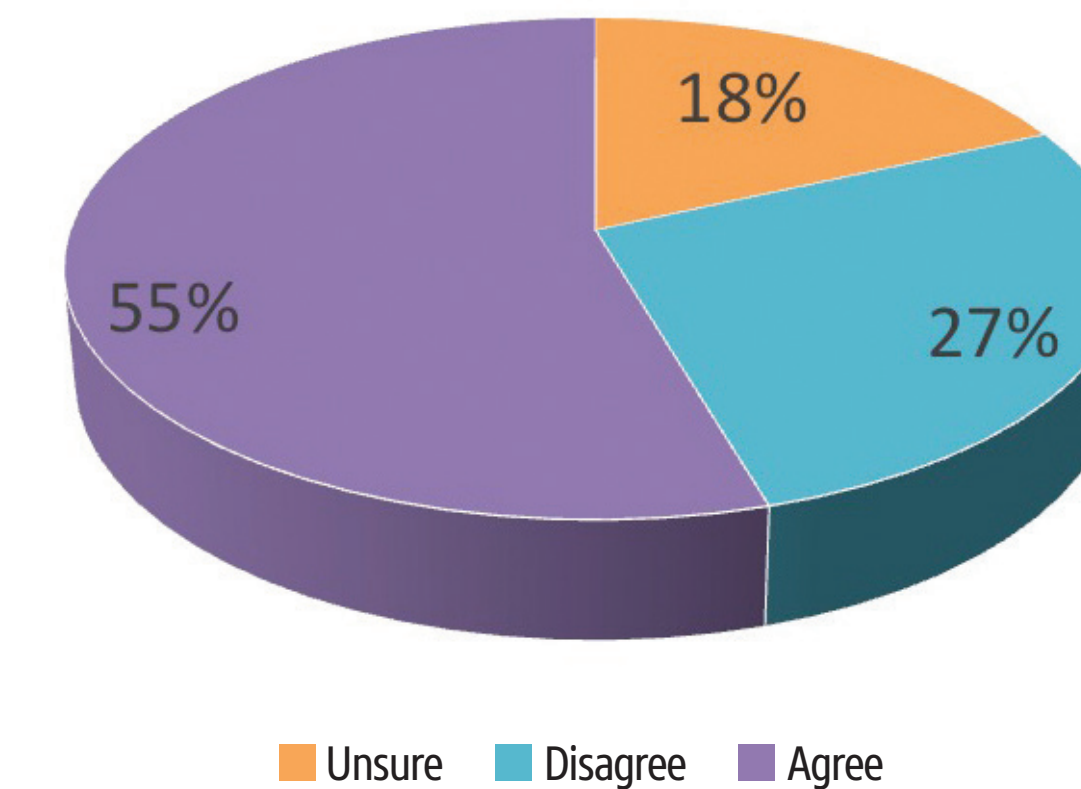
Percentage of MWS teachers who feel more confident and prepared to make informed decisions about student transition into a typical school setting



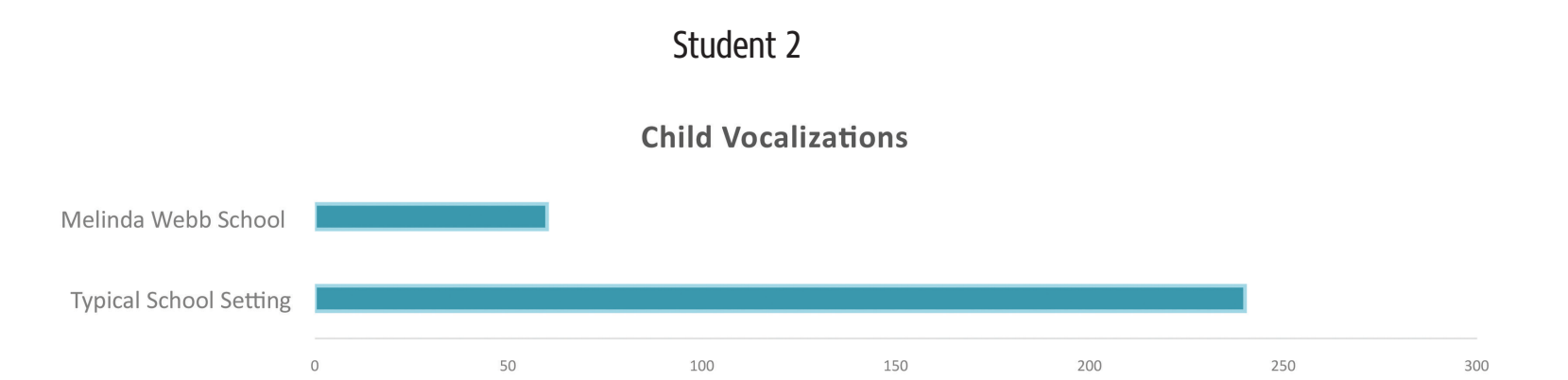
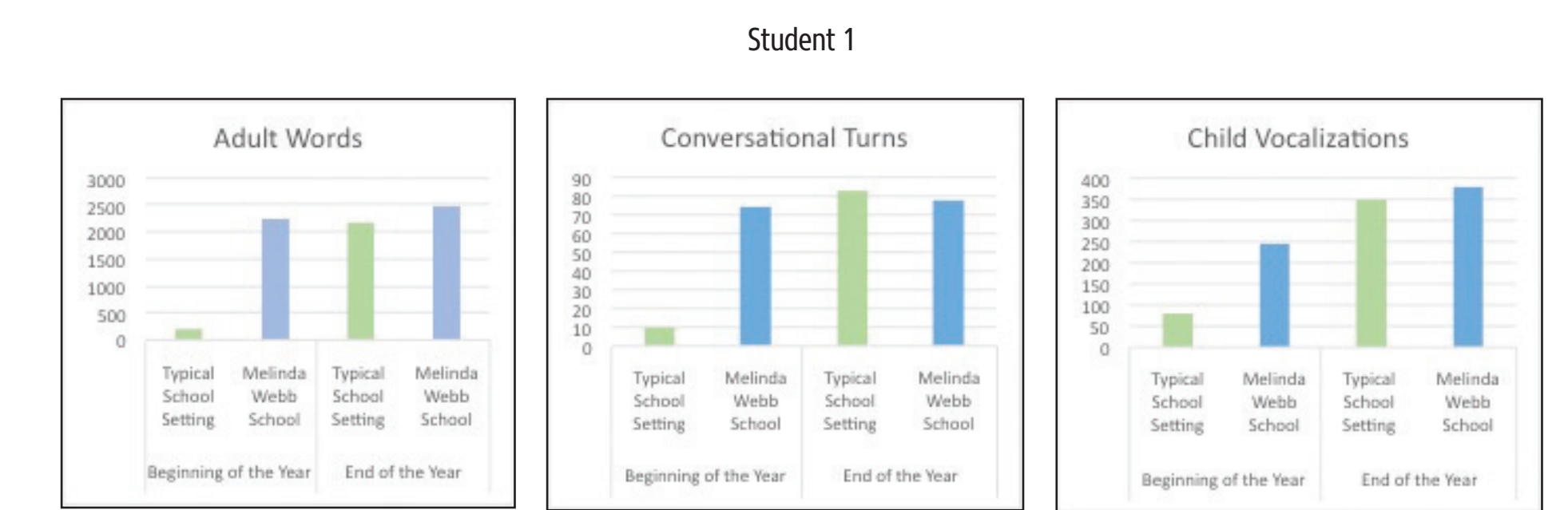
Percentage of MWS teachers who reported an increased understanding of typical child development



Percentage of MWS teachers who observed a noticeable improvement of student social skills



LENA RESULTS



DISCUSSION

Overall, the smaller groups and specialized instruction at the Melinda Webb School proved to be more beneficial for the listening and spoken language development of most students with hearing loss. Most students that we tracked were exposed to more adult words, vocalized more, and had more conversational turns at the Melinda Webb School. However, one student had more vocalizations at the partnering school. This student has vocabulary and total language scores within normal range. Her present levels of language performance and her performance in the typical school setting confirmed teacher recommendations for transition to a typical school for the next school year.

It was difficult to measure how meaningful the auditory environment was at the typical school. We are unsure if students would have more child vocalizations and conversational turns in a more consistent listening environment. Through teacher observations, we also noted the impact of social and emotional challenges our students faced in a typical school setting. We observed a correlation between language ability and social-emotional intelligence in all grade levels.

Results from the teacher surveys indicated that all students and teachers enjoyed participating in the program. Overall, teachers reported feeling more prepared to make informed decisions about their students' readiness for an inclusive setting. Teachers also indicated an increased understanding of typical child development. This was achieved solely due to exposure to typically-developing students in their school setting. Teachers from the partnering school reported an increased awareness of language development and understanding of syntax and pragmatic instructional techniques.

Based on teacher observations, participant surveys, and data collected from the LENA, it was determined that continuing this program would be jointly beneficial. Ideas for program growth and improvement include creating a continuum of individualized plans for students with hearing loss to participate in the inclusion setting. Possible student placements include, but are not limited to:

- Some students staying in their self-contained oral classrooms due to age or ability level
- Select students participating in small groups facilitated by teachers of the deaf in an optimal listening environment
- Some students participating in a co-teach environment led by a general education teacher and a teacher of the deaf
- A few students participating in a full-inclusion classroom led by a general education teacher

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