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C a s e S t u d y



Mary Ann Bash explains to parents how she uses the LENA Digital Language Processor (DLP) to track their children's progress.

In her career as a teacher, administrator, and urban learning advocate, Mary Ann S. Bash has witnessed two events that rocked the world of early childhood education.

She hopes to witness a third.

The first event was in the mid nineties, when Drs. Betty Hart and Todd Risley published *Meaningful Differences in the Everyday Experience of Young American Children*. In this pioneering longitudinal study, Hart and Risley compiled and analyzed data on the home language environments of children from across the socioeconomic spectrum, concluding that the number of words a child hears by age three has a significant impact on the future academic success of that child. Because of this study, early educators refer to the "30 million word gap by age 3" to emphasize the urgency for early intervention.

When explaining to parents the importance of their children's scores on the mandatory state accountability test, Mary Ann often uses the Hart and Risley findings with M.K. Smith's 1941 research study, "Measurement of the Size of General English Vocabulary Through the Elementary Grades and High School." This classic study found that "high knowledge third graders had vocabularies about equal to lowest-performing 12th graders" and that "high-school seniors near the top of their class

knew about four times as many words as their lower-performing classmates." However, until recently parents had no practical means of measuring their children's language environment. That is until the second event struck. The LENA Foundation, also inspired by Hart and Risley's work, introduced the LENA (for "language environment analysis") System in 2006.

Now Mary Ann can use the Hart and Risley study and Smith study to express the importance of developing extensive vocabularies and recommend that parents use the LENA Home system to monitor and augment their child's language development.

In her experience, the LENA Pro system has proven a valuable tool in helping public schools engage low-income parent communities in their children's schooling. As director of Each One Teach One: No More Gap, an oral language intervention program, Mary Ann had the opportunity to introduce LENA technology in preschool and kindergarten classrooms where more than 80 percent of the children are on free or reduced lunch and up to 60 percent of the students speak a language other than English at home.

Each day she would assign one child to wear a lightweight, unobtrusive LENA Digital Language Processor (DLP) for the entire school day, including after-school activities. Then she would hook the DLP up to a PC running the LENA Pro software. With the comprehensive reports that LENA generated, she not only tracked the children's language development but also was able to alter instructional methods to optimize learning for each child.

For example, she was able to:

- Increase the number of conversational turns a child engaged in at school
- Learn of the differences during instruction in large groups and small groups in literacy and math
- Measure the effects of classroom- and non-classroom-based activities

Perhaps most important, LENA enabled her to zero in on children who lacked verbal confidence and help empower them with a conversation-based intervention reflective of the intensive, highly verbal one-on-one interactions that Hart and Risley and the LENA Foundation recommend for accelerating language growth for children 2 months to 48 months of age.

LENA helped Mary Ann empower low-income parents by showing them concrete evidence of how using Each One Teach One: No More Gap strategies with their children ages 2–14 significantly increased the amount of conversation they had with their children and the number of turns the child took in the conversation. In one instance, a mother was so excited by LENA that she convinced the manager of her subsidized housing complex to let Mary Ann offer to use the LENA system and the Each One Teach One intervention program with each of the complex's 71 families.

With help from the technological advances made by the LENA Foundation and the ongoing success of Each One Teach One, Mary Ann hopes to witness a third great event—to see some of these children grow up to become the first in their families to attend college. 🧠



A powerful new tool for the early screening, diagnosis, research, and treatment of language delays and disorders in children and adults.

For product information, system requirements, and general inquiries,
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