

# LENA™ FOUNDATION

## C a s e S t u d y

**A** two-story, beige-brick building on Denver's west side, Charles M. Schenck (CMS) Community School exudes the confidence of the post-war period in which it was built. These days, however, the elementary school in the predominantly Hispanic Mar Lee neighborhood enrolls mostly low-income and immigrant students and is determined to leave no child behind. Not an easy task—the Colorado Department of Education ranked CMS “low” on overall academic performance on state assessments and “low” on academic growth of students for the 2007–2008 school year.

In the winter of 2009, Mary Ann S. Bash was walking down CMS' second floor corridor, lugging grocery store bags stuffed with books, lanyards, and educational supplies. She was on her way to begin the third week of her oral language intervention program, Each One Teach One: No More Gap.

Out of nowhere, the English as a Second Language (ESL) teacher stepped in her path.

“I have to know what you are doing with Guadalupe.”

A little startled, Mary Ann welcomed the teacher's inquiry.

“She's not the same person. Her English has blossomed since you began working with her.”

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*LENA Foundation Manager of Training and Professional Development Kim Coulter explains a conversational turns graph to third grader Guadalupe, an Each One Teach One student.*

During her more than 35 years working in Denver Public Schools (DPS), Mary Ann has worn many hats—teacher, central administrator, grant writer, and parent educator. Now retired from DPS, she has hit her stride as director of Each One Teach One, engaging students (ages 2 to 14), their parents, and community volunteers in fun, structured vocabulary-building conversations. Mary Ann has been invited to bring Each One Teach One to schools to meet a wide range of needs. She has used the program to engage parents of preschoolers and kindergartners in rich oral language at home; to close the achievement gap of second language learners and immigrant students; to develop the leadership skills of middle school students; to provide an after-school academic alternative for students; and to strengthen the relationship between a school and its neighborhood.

The one characteristic that links all Each One Teach One projects is that a student learns 25 to 35 new words—“keys to the future”—through discussions centered around a well-illustrated, engaging picture book. The students proudly wear the new words around their necks on lanyards, which double as learning aids and public symbols of their achievement. After her students have mastered the words, Mary Ann promotes them to teaching the words to other students. When those students graduate to become teachers, the original teacher begins the cycle again by learning 25 to 35 words for a new book. With kids teaching kids, not only does the program provide a unique method of solving the problem of understaffed schools, it also speeds vocabulary acquisition, boosts self-confidence, develops leadership skills, and empowers kids to take charge of their educations.

How did she get started along this path? A few professional resources drove Mary Ann's passion for vocabulary instruction and the creation of Each One Teach One.

In 1941, M.K. Smith published the 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.” Mary Ann knew that some students simply had more experience with words than others, and the Smith study proved it.

More than half a century later, in 1995, 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, Mary Ann notes, early educators refer to the “30 million word gap by age 3” to emphasize the urgency for early intervention.

“However, until recently parents had no practical means of measuring their children’s language environment,” Mary Ann explains. “They didn’t know if the talking they did with their children was sufficient to help their children do well in school. That is until the LENA Foundation, also inspired by Hart and Risley’s work, introduced

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the LENA System.” (LENA is for “language environment analysis.”) Now Mary Ann uses the classic studies to express the importance of developing flexible vocabularies and uses the LENA Pro system to monitor her students’ development of conversational skills.

Through her language intervention program, Mary Ann had the opportunity to introduce LENA Pro in preschool and kindergarten classrooms where more than 80 percent of the children were on free or reduced lunch and up to 60 percent of the students spoke a language other than English at home. Each day Mary Ann would assign a LENA Digital Language Processor (DLP) to one child. (The DLP is a small recording device worn in a special T-shirt pocket at the child’s chest level.) At the end of the day, she would plug the DLP into a PC running the LENA software. She used the comprehensive LENA reports not only to track children’s

conversational language development, but also to modify her instructional methods to tailor optimal oral language interactions for each child. In addition, LENA Pro helped Mary Ann increase the number of conversational turns a child engaged in at school; learn of differences associated with teaching literacy and math in large groups and small groups; and measure the effects of classroom- and non-classroom-based activities.

“LENA helped us empower low-income parents by showing them concrete evidence of how using Each One Teach One 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,” Mary Ann explains. “In one instance, a mother was so excited by LENA that she convinced the manager of her subsidized housing complex to let me offer to use the LENA System and the Each One Teach One intervention program with the complex’s 71 families.”

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On a warm spring afternoon in April 2009, Mary Ann passes out the picture book *EEK! There’s a Mouse in the House* to half a dozen Latino parents. With the help of a teacher-translator, she has the parents flip to a page with animals scurrying about and a lamp sitting on the table. By teaching them to explore the vocabulary possibilities in the illustrations, she empowers parents to help their kids with the Each One Teach One program at home—helping foster a pro-learning family environment.

Knowing that many young Spanish speakers do not know the English word “lamp,” she asks the parents, “What’s the Spanish word for lamp?”

“Lámpara.”

“Ahh, lámpara,” Mary Ann acknowledges. “Lamp, lámpara. They’re cognates—similar in sound, same in meaning. If you teach your children the word in Spanish, it’ll be really easy for them to grasp the word in English. Or vice versa. The greater their vocabulary in one language, the easier for them to acquire words in the other.”

Mary Ann continues by teaching parents to engage their children in conversation that will broaden their general knowledge and help them make connections between the new words and their life. On the illustration, she points to the electrical cord coming out of the lamp. Gradually, the conversation broadens to include topics such as other electrical appliances in the home and the need to conserve energy.

The translator explains to the parents that Mary Ann wants to teach the children to use language that is more precise. Many of the students tend to speak in generalities. For example, a student might say, “Put that thing over there.” Therefore, Mary Ann helps parents and students elaborate their word choices. She teaches them to distinguish the “plastic picture frame” of a family picture from the “ornate wooden picture frame” in the illustration. They describe the mouse as “generous” and the dog as “energetic.” The parents talk with a partner about all the animals in the canine or feline families. Eventually, parents begin to understand that they



*CMS Each One Teach One poses for a group photo after second and third graders earned special name badges for having successfully taught their words to another student.*

need to use these more sophisticated words with their children in Spanish. Moreover, parents realize how easy it will be for them to learn more English because so many of the words sound and look similar in Spanish and English.

A father from Mexico cradles a newborn up against his LA Galaxy soccer jersey and raises his hand. “Thank you,” he says. “This is great. In Mexico they just taught us how to read words and that’s it. We never talked about the pictures and all of their many associations. Now I spend more time talking about the pictures in books with my six-year-old daughter. She understands so much now.”

A queue of lanyard-wearing kids files through the door. Mary Ann has each of them go up to one or two adults, make eye contact, and introduce themselves to build confidence in themselves and their English language skills. Gradually, the kids gather their teaching materials—books, small white boards, markers—and then pair up and start teaching one

another the unique set of words they learned in their one-on-one Each One Teach One lessons.

Today is graduation day for one student. She uses all her new words proficiently to tell an elaborate story about richly detailed illustrations. One of the graduating student’s words from an illustration is “tulips,” so Mary Ann presents a vase full of flowers from her garden that she brought in to inspire the children to notice tulips and other spring bulbs that are blossoming in their neighborhood. Before returning to regular classes, each child gets to pick out one of the flowers to take home.

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Each One Teach One and the LENA System enable Mary Ann to zero in on children who lack 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.

Guadalupe is one of those children. When she first started in Ms. Cindy O’Neal’s ESL and reading recovery classes, her silence stood out. She neither spoke nor read a word. Even though she was a third grader, Guadalupe was testing two grades behind in English and scoring around 10 percent on her spelling tests.

Then Guadalupe volunteered to spend extra time after school participating in Mary Ann’s Each One Teach One program. Six weeks later, she was a different person with increased confidence and improved oral language skills. “Now she’s right in the thick of it,” O’Neal says. And her classroom teacher, Ms. Lina Quintero, enthuses that Guadalupe caught up to her grade level in English and received an 88 percent on her most recent spelling test. She’s also teaching her mother English.

(In addition, her third grade Each One Teach One peer Sergio managed to improve from one grade behind in English to the fifth grade level.) “I’m overjoyed with Guadalupe’s success,” Mary Ann says. “The other day she told me she wanted to be a dual language teacher when she grows up. Her aspiration gives me hope that public schools will be better prepared to accelerate the achievement of English language learners in the future.”

As for her impromptu meeting with Mary Ann in the CMS hallway, O’Neal says she was simply seizing an opportunity: “With all of the students and classes I have to juggle during a regular school day, I can’t dedicate as much time as I want to working with individual students. I knew Lupe was in Each One Teach One and suspected that Mary Ann was behind this transformation. So when I finally had an opportunity to meet Mary Ann and thank her, I jumped on it.”🐾

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**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,  
please call toll free: 866.503.9918 or visit our website at [www.lenafoundation.org](http://www.lenafoundation.org)**

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