

Trying to Close a Knowledge Gap, Word by Word

By MOTOKO RICHMARCH 25, 2014

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VIDEO | 0:57

Credit Katherine Taylor for The New York Times

A Gadget to Close the Language Gap

An intervention program in Providence, R.I., uses a digital word counter to track language use in families, in an effort to close the “word gap” between children from low-income and affluent families.

PROVIDENCE, R.I. — Amid a [political push](#) for government-funded preschool for 4-year-olds, a growing number of experts fear that such programs actually start too late for the children most at risk. That is why Deisy Ixcuna-González, the 16-month-old daughter of Guatemalan immigrants, is wearing a tiny recorder that captures every word she hears and utters inside her family’s cramped apartment one day a week.

[Recent research](#) shows that brain development is buoyed by continuous interaction with parents and caregivers from birth, and that even before age 2, the children of the wealthy know more words than do those of the poor. So the recorder acts as a tool for instructing Deisy’s parents on how

to turn even a visit to the kitchen into a language lesson. It is part of an ambitious campaign, known as Providence Talks, aimed at the city's poorest residents to reduce the knowledge gap long before school starts. It is among a number of such efforts being undertaken throughout the country.



Deisy's mother, María González, spoke with with Stephanie Taveras, a Providence Talks home visitor. Credit Katherine Taylor for The New York Times

“When she grabs your hand and brings you to the refrigerator and points to the cabinet, that is an opportunity for you to say, ‘Deisy, are you hungry? You want cereal? Let’s go look for the cereal,’” Stephanie Taveras, a Providence Talks home visitor who also works with Early Head Start, told Deisy’s mother in Spanish. “You do the responding for her now until she has the vocabulary, and she will be hearing you.”

Educators say that many parents, especially among the poor and immigrants, do not know that talking, as well as reading, singing and playing with their young children, is important. “I’ve had young moms say, ‘I didn’t know I was supposed to talk to my baby until they could say words and talk to me,’” said Susan Landry, director of the Children’s Learning Institute at the University of Texas in Houston, which has developed a home visiting program similar to the one here in Providence.

Close to a [quarter of all American children now live in poverty](#). More than half of all children age 2 and under are cared for during the day by a

parent or relative, according to a [McCormick Foundation analysis of census data](#).

To reach those children, educators say they need to focus their efforts on the home.

“In the same way that we say you should feed your child, brush their teeth, you should be stimulating their brain by talking, singing and reading to them,” said Ann O’Leary, the director of Too Small to Fail, an initiative aimed at closing the word gap across the country. “We want to move the needle from this being an optional activity to a must-do activity.”

Too Small to Fail, a joint effort of the nonprofit Next Generation and the Bill, Hillary & Chelsea Clinton Foundation, chose Latino children as its initial focus because more of them live in poverty than do children of any other racial or ethnic group. They are also more likely to be cared for at home by a relative during the day than are either white or African-American children. Hillary Rodham Clinton is the co-founder of Too Small to Fail, which has a budget of \$20 million.

Last month, Too Small To Fail started an advertising campaign in conjunction with Univision, the Spanish-language television network, featuring Bárbara Bermudo, the host of a popular afternoon program. In one ad, Ms. Bermudo appears with her young daughters in a pink-infused playroom, baking in the kitchen and then reading them a book.

“Taking fifteen minutes a day to communicate with them while you’re preparing dinner or reading to them at bedtime are the most valuable minutes for developing their vocabulary skills and creating a strong foundation for their academic success,” Ms. Bermudo tells viewers.



Angel Taveras, Providence's first Latino mayor, was a graduate of Head Start. Credit Katherine Taylor for The New York Times

Ms. O'Leary said Too Small to Fail would experiment with a variety of media messages in different cities. Starting later this spring, slogans like "Words bring your child's mind to life," "Talking is teaching" and "Feed me words" will appear on billboards, grocery carts and buses in low-income neighborhoods in Tulsa, Okla. The goal, Ms. O'Leary said, is to emulate the success of other public information campaigns such as those intended to reduce crib death by persuading parents to put their babies to sleep on their backs.

As in Providence, several groups around the country — some of longstanding tenure — are building home visiting programs and workshops to help parents learn not only that they should talk, but how to do so.

"Every parent can talk," said Dr. Dana Suskind, a pediatric surgeon at the University of Chicago who founded the Thirty Million Words Initiative, which oversees home visiting programs and public information campaigns.

"It's the most empowering thing," said Dr. Suskind, who is securing funding for a randomized trial of a home-based curriculum intended to teach parents how they should talk with their children and why.

Advocates for the poor say that improving the long-term academic prospects of disadvantaged children, much less their chance of escaping poverty, is a much more complicated proposition than some of these programs might suggest.

“When Hillary Clinton runs around trying to close the word gap, it’s like fine, vocabulary is good,” said Bruce Fuller, a professor of education and public policy at the University of California, Berkeley. “But there is a deeper commitment to literacy and conversation around the dinner table and talking to kids about ideas and political controversies that is the more colorful fabric of literacy and conversation.”

Here in Providence, where more than 85 percent of public school students are eligible for federally subsidized lunches and two-thirds of public school kindergartners are behind in recognizing basic language sounds or identifying letters in print, officials see Providence Talks as just one part of a larger educational strategy. It is being funded by a \$5 million grant from Bloomberg Philanthropies, and officials hope that they can eventually secure some public funding.

“The more effective we can show that it is, the higher the possibility that you can get government funding for it,” said Angel Taveras, Providence’s first Latino mayor and a graduate of Head Start.

On a chilly afternoon this month, Ms. Taveras (who is not related to the mayor) sat down with Deisy’s parents. María González, who has a third grade education and spoke her native K’iche’ when she emigrated from Guatemala seven years ago, reviewed a bar chart that showed how many words she and her husband, Rafael Ixcuna, who packs fruit at a factory in the city, had spoken to Deisy on a day the previous week. To help give parents feedback and provide data for researchers, the home visitors give each family — all of whom volunteered to participate — a tiny recording device, known as a [Lena](#), that can be inserted into a vest worn by the child. The recorders distinguish between words overheard from television or other electronics and live human conversations. Computer software then analyzes the numbers of words spoken.

Privacy advocates and the Rhode Island chapter of the American Civil Liberties Union raised concerns about the recordings. In response, Providence officials disabled playback functions on the devices and promised that home visitors and others would never be able to listen to the actual conversations. The recordings are immediately erased once they are uploaded for word-count analysis.

Researchers say such recordings will help them track results. In the short term, scholars will evaluate whether the home visits prompt parents to talk more. In the longer term, they will be looking for improvements in future academic performance.

Child advocates say programs need to convey the subtlety of communication as well as simply trying to bolster word counts. “It’s not just saying, ‘You need to say this amount of words to your kids every day and then they’re going to be smart and successful,’” said Claire Lerner, director of parenting resources at Zero to Three, a nonprofit group that promotes healthy development in the early years.

“We don’t want parents talking at babies,” Ms. Lerner said. “We want parents talking with babies.”

In addition to tracking word counts, the Lena device can detect when parents and caregivers wait for — and respond to — the verbal utterances of their children.

On the visit last week, Ms. Taveras showed Ms. González how much she and Mr. Ixcuna had increased such “conversational turns” with Deisy.

Ms. González nodded, determined. “The next one will be even higher,” she said.