

# Bridging the 30 Million Word Gap

How Researchers, Parents,  
Professionals, and  
Communities Are Joining  
Together to Enrich Children's  
Early Language-Learning  
Environments

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Project  
University of Kansas



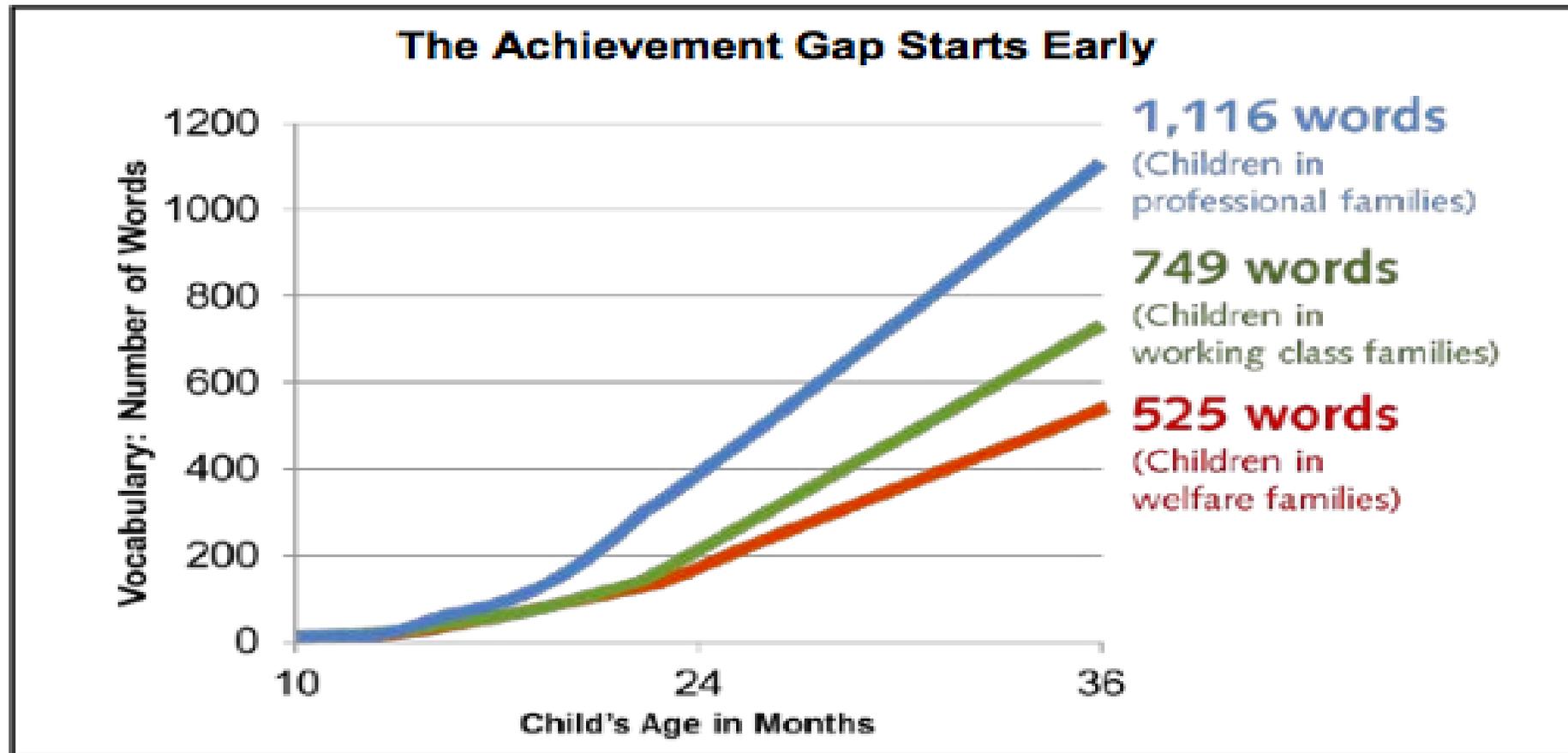
# Overview

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- Background: What is the word gap?
- Why is it important?
- What can be done about it?
- What's currently working?
- Future directions

It is astonishing how quickly children learn words and how to use them to communicate.





Hart & Risley, 1995

By the age of 3, a child typically has a vocabulary of about 1000 words.

The size of a child's vocabulary at age 3 and the trajectory of vocabulary learning are strong predictors of literacy and later school success.

# Early SES Differences in Children's Language

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- SES differences in vocabulary and language processing are identified as early as 18 months
- There is often a 6 month difference between low- and high SES children by 24 months

(Fernald, Marchman, & Weisleder, 2012)

# The 30-Million Word Gap in Adult Talk to Children by Age 4

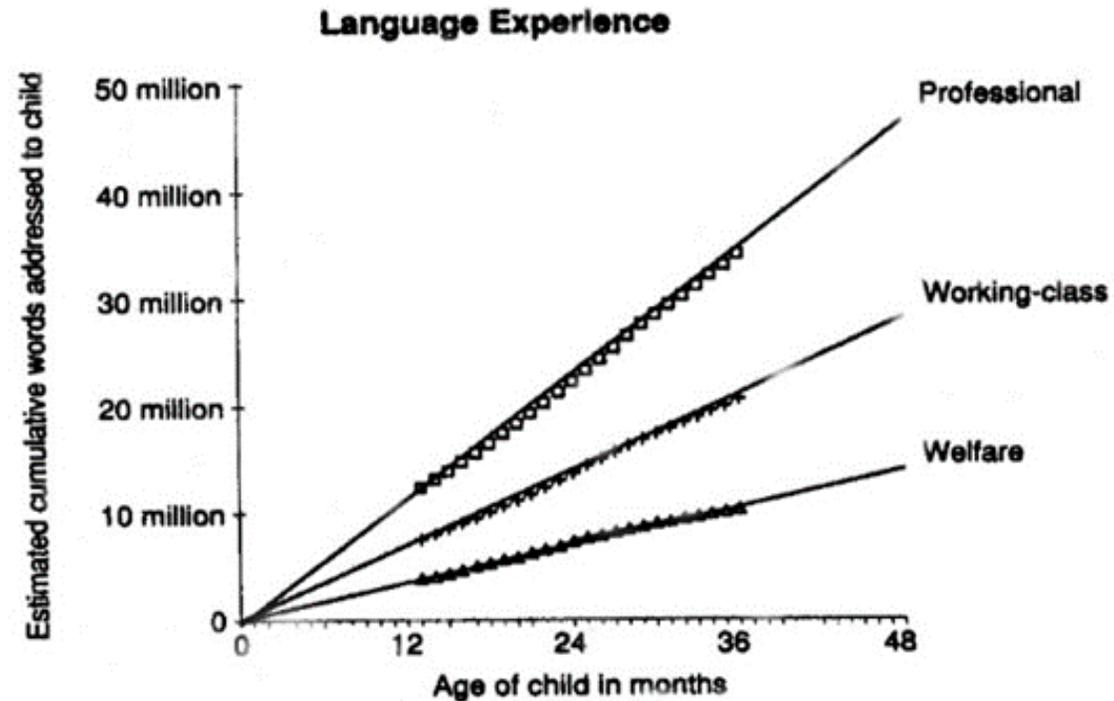


Figure 19. Estimated cumulative differences in language experience by 4 years of age. (See Appendix B for a detailed explanation of this figure.)

Hart & Risley, 1995

# The Good News!

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We know what it takes to bridge this gap.

We have years of descriptive and intervention research pointing to the specific types of behaviors that can reduce the word gap.

These are behaviors that parents and family members and caregivers can do and embed into their everyday routines.



# Bad News

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The word hasn't gotten out how important it is to engage and interact and talk with children.



# We need to “Move the Needle” on the Word Gap.

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Broader public awareness of the importance of talking with young children

- Greater variety of programs helping to spread the word and influencing parents’ and caregivers’ behavior

Interventions that help parents and caregivers make a habit of tuning in, taking turns, talking and interacting with their children.



# GOAL of the BWG Research Network: Reducing the vocabulary gap of young children in poverty by increasing their early language learning experiences



# Community-Wide Public Awareness Interventions

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SPREADING THE WORD ABOUT THE WORD  
GAP

AND WHAT WE CAN DO TO PREVENT IT

City-wide campaigns, like Too Small to Fail, are raising public awareness and giving parents reminders to talk more with their children.



Too Small to Fail—turning laundromats  
into places for more conversations!

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WASH TIME IS  
**TALK TIME!**



LET'S TALK ABOUT

# LAUNDRY!

Turn wash time into talk time! Play “I-Spy” with your child while doing laundry. “I spy something *blue* and *soft*. What do you spy?”



#TALKINGISTEACHINGTIPS



# Talk About Trains (from Too Small to Fail)

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# Talk



Talk to your child every day  
... this helps your child  
learn words.

# Read



Read to your child every day  
... this helps your child enjoy  
learning.

# Play



Play with your child every day  
... this helps your child get  
along with others.

***Help Your Child Be Ready for School ... Right From the Start***



Children's Campus of Kansas City

*The printing of this flier was made possible by funds provided by the Shumaker Family Foundation.*

Please dial **211** for referrals to services  
that are specific to your needs



For more parenting tips or information:

**[www.TheFamilyConservancy.org](http://www.TheFamilyConservancy.org)**

# Infants

*Beginning to learn words*

## Talk Every Day

- Say your baby's name often.
- Take turns making the same sounds as your baby. Babies learn that people react when they make sounds.
- Talk to your baby during bath time, play time, diaper changing, and feeding time. This is how your baby will learn the daily routine.
- Talking to your baby will help your baby learn to talk.

## Read Every Day

- Look at books together. This gives you a chance to hold and cuddle your baby.
- Point to pictures in books and talk about what you see. This gives your baby a chance to hear new words and learn to enjoy books.
- Read before nap time and bedtime. This routine can calm your baby.

## Play Every Day

- Give your baby time to move and play with you.
- Look and smile at your baby. Let your baby watch your face and follow your movements.
- Play with your baby using rattles, toys, and games like peek-a-boo.
- Talk to your baby during these activities.

# Toddlers

*Starting to use words*

## Talk Every Day

- Help your child learn to talk by adding words. If your child says, "Milk," you say, "Do you want some milk?"
- Help your child learn new words by explaining what is happening during the day. "You are using your spoon to eat your peas."
- Name your toddler's feelings, such as happy, sad, mad, and scared.
- Sing simple songs. Use lots of rhyming words. Play children's music at home or in the car.

## Read Every Day

- Sit close to or hold your toddler when looking at books together.
- Let your toddler choose a book, turn the pages and point to pictures and words.
- Read your child's favorite books over and over again. Children learn words when they hear them often.
- Visit the library to find new books. Keep books, newspapers, and magazines in your home.

## Play Every Day

- Children learn when they play.
- Give your child time to explore new objects, places, and people. Play outside often.
- Play make-believe with your child. Use dress-up clothes, puppets, boxes, pots and pans.

# Preschoolers

*Putting more words together*

## Talk Every Day

- Talk to your child about his or her day. Ask questions that begin with who, what and why.
- Talk about what happens during the day.
- Use complete sentences to describe what is happening around you and your child.
- Ask children "what if" or "I wonder" questions. "I wonder what will happen if we leave the ice cube on the kitchen counter."

## Read Every Day

- Have fun while you are reading books and looking at pictures with your child. Use silly voices. Point out words and pictures on the page and ask questions.
- Retell stories in your own words. Listen to your child retell stories.
- Point out words inside and outside of your home. Point out written words on doors, traffic signs, billboards, boxes, cans, and buses.

## Play Every Day

- Play with toys and create things using blocks, crayons, play dough, sandboxes and playgrounds.
- Follow what your child is interested in when playing together.
- Describe what your child is doing.
- Pretend to cook, clean, care for babies, dress up and go to work.

*These tips provide information and resources to parents and those serving young children and families about how to help children develop and be ready for school. Please give to everyone you know so that children throughout the Kansas City Metropolitan area have opportunities to talk, read, and play every day.*

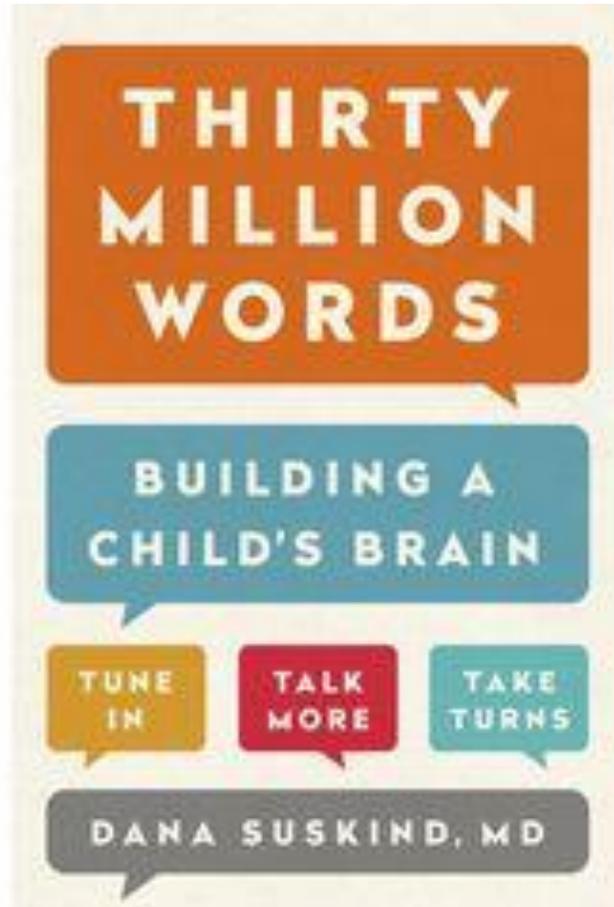
*Thank you! Talk Read Play Kansas City, The Children's Campus of Kansas City, The Family Conservancy, Project EAGLE and Connections, Juniper Gardens Children's Project and community partners.*

# Individual Interventions Aimed at Parents

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# 30 Million Words Initiative—Dana Suskind

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## Helping Parents Learn Specific Language-Promoting Strategies

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<http://thirtymillionwords.org>



**T**une In   **T**alk More   **T**ake Turns

# Tune In

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- A child learns when he or she is **engaged** in what he or she is hearing.
- A child's attention is always changing; that's why it's important to **Tune In**. You have to pay attention and change your words to match.
- **Tuning in goes both ways—you Tune In to your child, and your child Tunes In to you.**
  - **Getting on your child's level**
  - **Turning up your tone**

# Talk More

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- Right now, your child's brain is growing and making connections quickly; that's why it's important to **Talk More** with your child, to build as many connections as possible.
- Describing is a great way to **Talk More** with your child. You can do this by talking about:
  - the here + now
  - the past + future
  - thoughts + feelings

# Take Turns

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- When you **Tune In** and **Talk More**, your words build your child's brain, but it's not all about *your* words. *Your child* needs to respond!
- The more practice your child gets **Taking Turns**, the better talker he or she will become.
- It is never too early to **Take Turns**. The most important thing is that you respond.
- Singing songs together is a great way to take even more turns with your child.

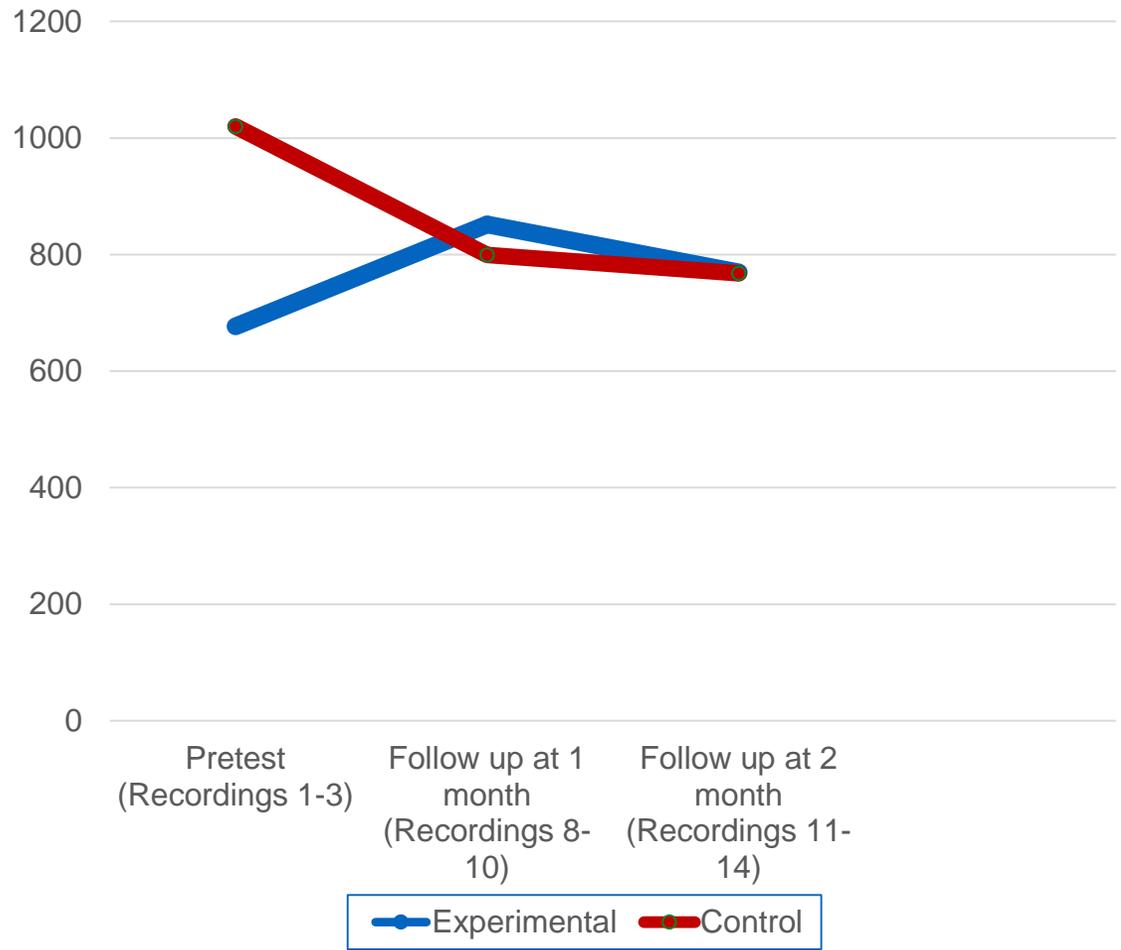
# Thirty Million Words Home Visiting Intervention

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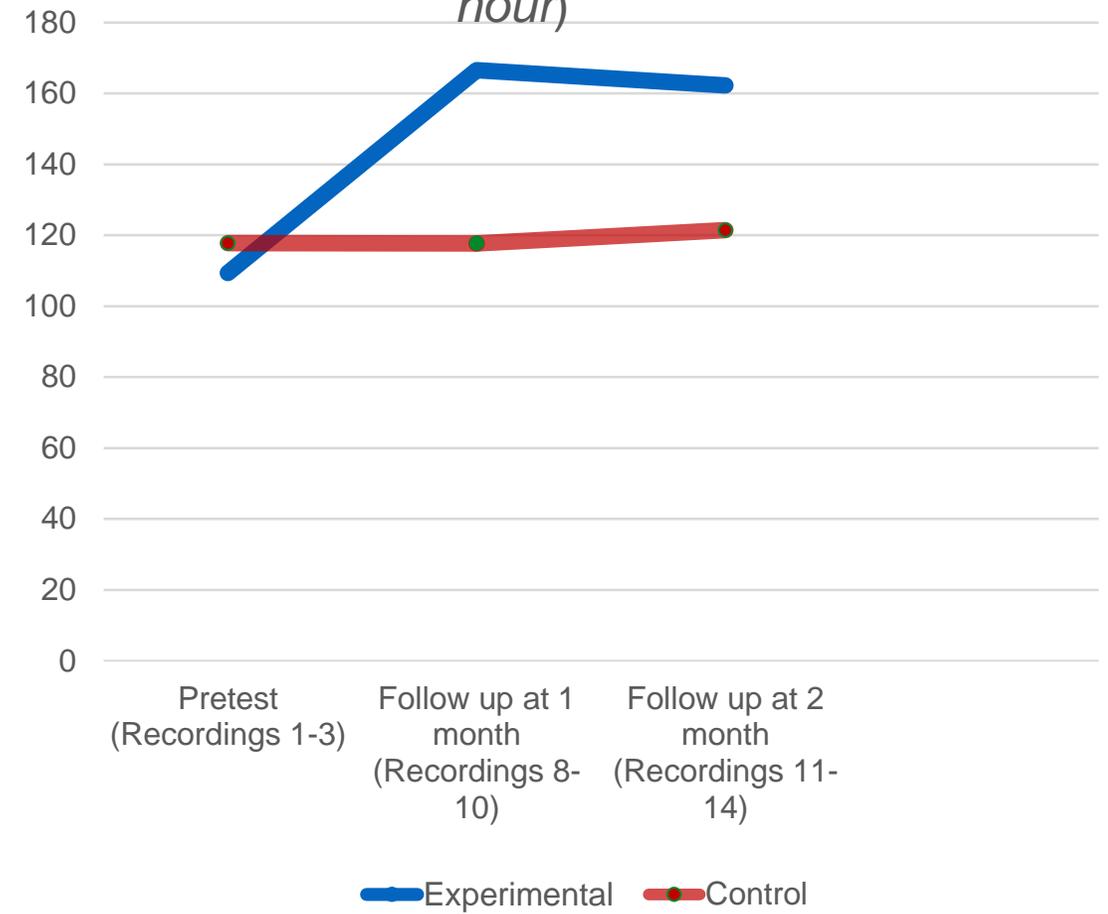
- 12-week multimedia behavior change intervention
- Standardized, computer-based curriculum designed for future scalability

# Thirty Million Words 1.0: LENA Results

## Changes in Adult Word Count Per Hour



## Changes in Child Vocalization Count (per hour)



# Unique Measurement Aspects of the Study

## Measurement of the Home Language Environment

- LENA (Language Pedometer)

### What's Included in the LENA System



### LENA's Easy 3-Step Process

— use 2-3 times per month



Slip the LENA Digital Language Processor into your child's comfortable, stylish LENA Clothing — and forget about it.



At the end of the day, plug the LENA Digital Language Processor into your PC. The sophisticated language environment analysis software processes the DLP data to determine the number of words and conversational turns.



View your reports showing the number of conversational turns and words spoken throughout the day and percentile ranks.

# Curriculum & Technology

## Core Components of the Coaching Model:

- Data Co-Discovery
- Skill Building
- Resource Sharing
- Goal Setting



## LENA Digital Language Processors measure:

- Adult Word Counts
- Conversational Turn Counts
- TV Noise

## Providence Talks Custom LENA Reports:

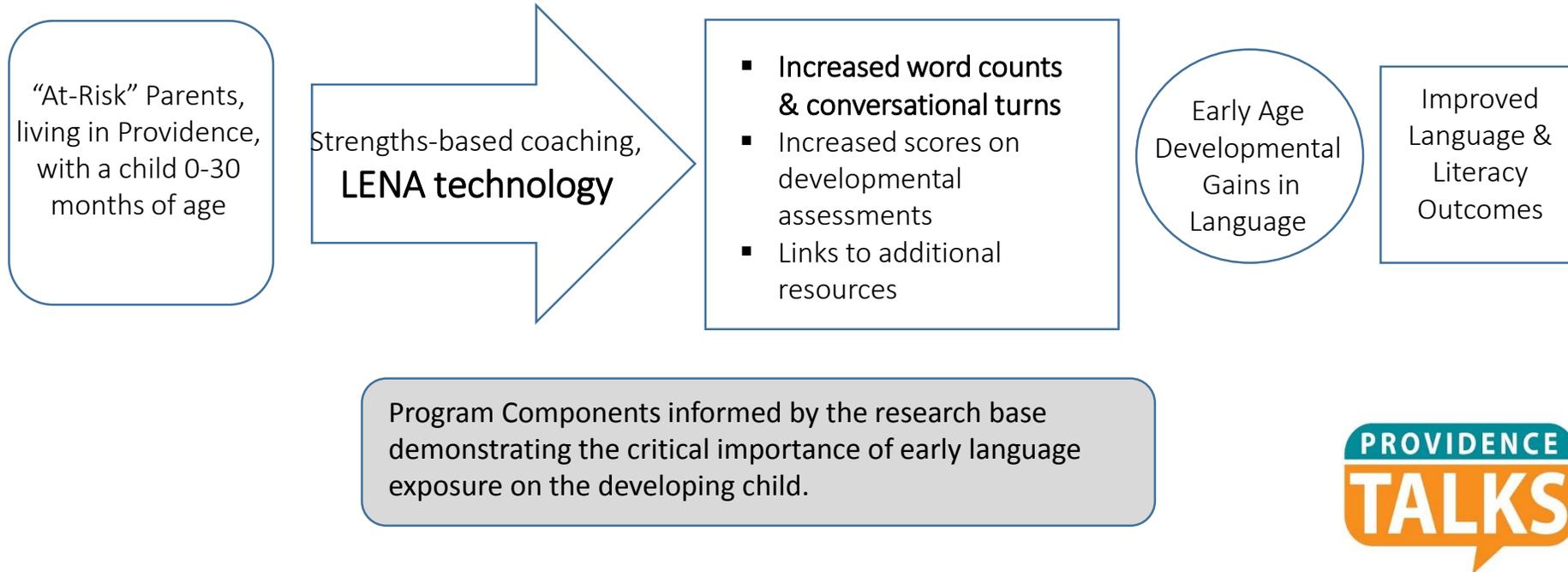
- Track parent progress overtime
- Provide positive feedback for goal achievement



PROVIDENCE  
**TALKS**  
TALK TO TEACH



# Theory of Change: Building on the Power of Parents



# LENA Parent Report

## SAMPLE REPORT

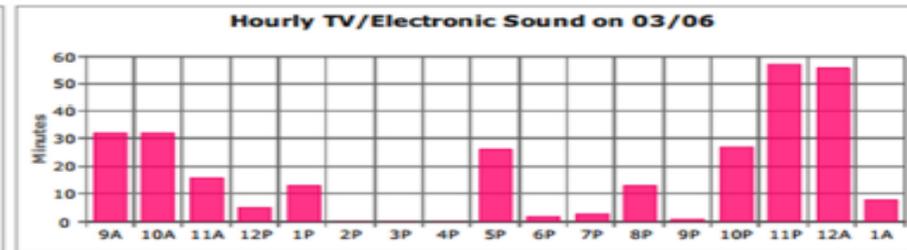
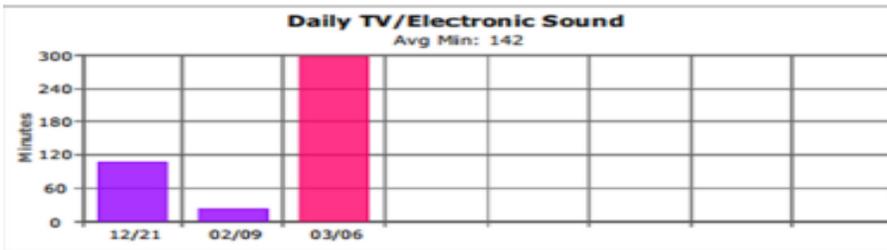
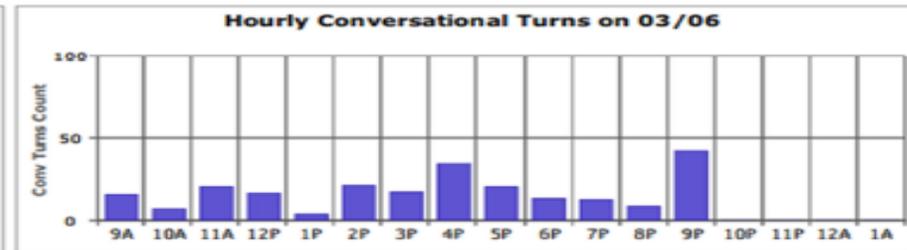
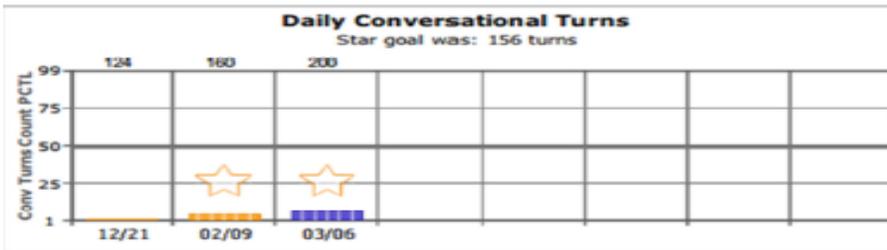
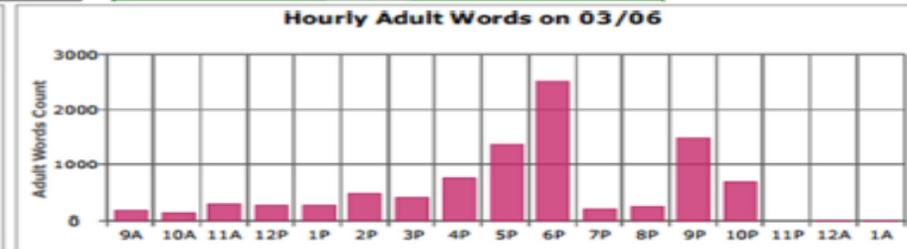
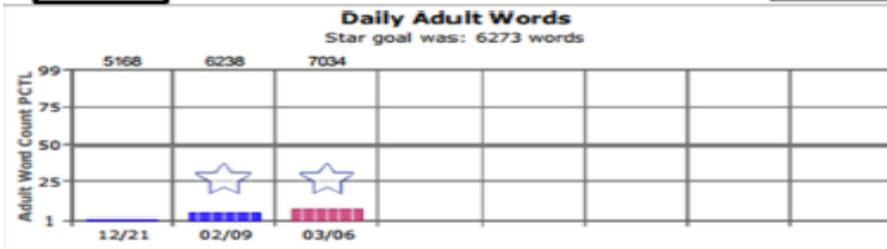


Name Victor  
 ID \_\_\_\_\_  
 Age 32 months

**PCTL Legend**  
 High: 75-99  
 High Avg: 50-74  
 Low Avg: 25-49  
 Low: 1-24

**Daily Book Reading**  
 Daily Minimum by Age  
 Month 1-11: 10 min  
 Month 12-23: 20 min  
 Month 24+: 30 min  
 0 minutes per day as of 02/11

Total Stars earned through this Report  
 ★ 4



# Impact of Technology

## Puts Parents at the Center

Ties the intervention directly to Parent Outputs

## Empowers

Parents have access to data so they understand how they are doing and can set goals

## Encourages

Provides Parents with positive reinforcement as they make progress



# Early Results from Providence Talks

Lena Measure	All Participants	Participants Beginning Below 50 <sup>th</sup> Percentile
Word Count	Increased 1191 words per day	Increased 4222 words per day
Number of Conversational Turns	Increased from 59 <sup>th</sup> to 71 <sup>st</sup> percentile relative to normative group	Increased from 27 <sup>th</sup> to 42 <sup>nd</sup> percentile relative to normative group

Courtney Hawkins  
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# Population-Based Interventions in Pediatric Settings

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**Reach  
Out and  
Read<sup>®</sup>**



### **Pediatrician Guidance**

Pediatricians speak to parents about the importance of reading aloud to their children every day.

### **Prescribe a Book**

At each regular checkup from 6 mos. through 5 yrs., the child receives a new, culturally- and developmentally-appropriate book.

### **Model Effective Reading Practices**

Dialogic reading: Parent helps the child become the teller of the story. Parent becomes the listener, the questioner, the audience for the child.

# Statewide Campaign in Georgia: “Talk with Me, Baby”





Hello,  
Baby!

## Talk With Me Baby

GEORGIA'S LANGUAGE NUTRITION  
STRATEGY TO BRIDGE THE WORD GAP

# The Language Nutrition Solution

PARENTS AS THEIR BABY'S FIRST AND BEST TEACHER



# LITTLE BRAINS NEED LOTS OF WORDS TO GROW AND THRIVE

Just like a child needs an adequate amount of food for physical growth, a child also needs adequate language for his or her brain development.

In the same way that the quality and nutritious value of the food differs and matters for a child's growth, the quality of language is important.



NURSING WORKFORCE WILL BE TRAINED TO **EDUCATE AND COACH** EXPECTANT AND NEW PARENTS ABOUT **WHY AND HOW** TO TALK WITH THEIR BABIES



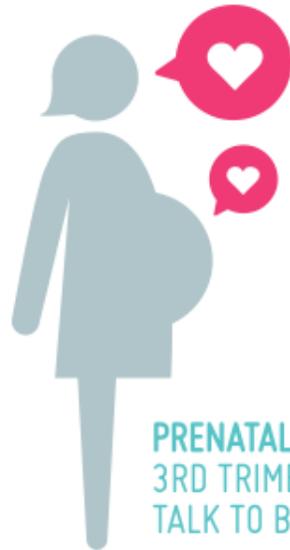
WHY NURSES?

99%

OF ALL EXPECTING AND NEW PARENTS ARE SEEN BY NURSES IN THIS TIME FRAME.

# A Call to Action

ADVANTAGE OF AN INITIATIVE THAT BEGINS WITH NURSES



**PRENATAL:**  
3RD TRIMESTER -  
TALK TO BABY IN UTERO



**PERINATAL:**  
WELCOME BABY  
IN THE LANGUAGE  
OF YOUR HEART



**POSTNATAL:**  
EMPHASIZE  
LANGUAGE IN 7  
WELL-CHECKUPS  
IN THE FIRST YEAR



**LIFELONG:**  
CONFIDENT AND  
ENGAGED PARENTS  
RAISING STRONG  
READERS

NURSE-DELIVERED **TRANSFER OF CAPACITY** FROM BEGINNING OF 3RD TRIMESTER TO END OF CHILD'S FIRST YEAR **BUILDS PARENT'S CAPACITY TO PROVIDE LANGUAGE NUTRITION TO INFANTS.**

# Overall Goal of the BWG Research Network

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Develop an infrastructure to build a national agenda that will result in more effective ways to address the word gap through interventions mounted at three levels:

- Population
- Community
- Individual



# BWG Network: Distilling most promising practices through research syntheses

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- 6 Bridging the Word Gap Workgroups conducting research syntheses to:
  - Synthesize evidence and identify most promising interventions
  - Identify gaps in the research and point to most needed areas for future investigation
  - Provide implications for practice
  - Point to exemplary areas of innovation

# BWG Network: Creating a practice-based collaborative

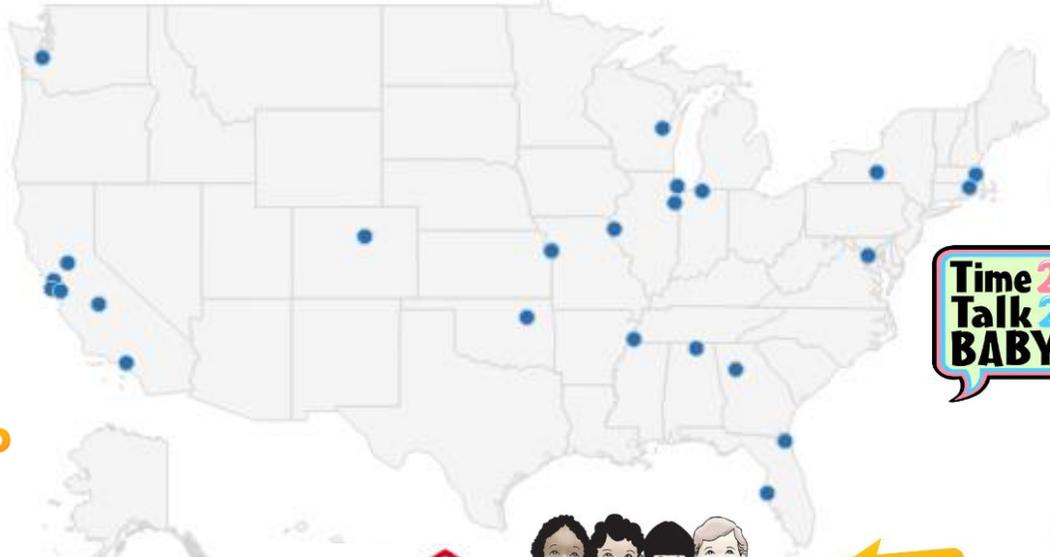
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Create practice-based research collaborative

- Promoting research-program partnerships to carry out small-scale studies focused on reducing the word gap
- Learning from what works best in practice



# Practice-Based Research Collaborative

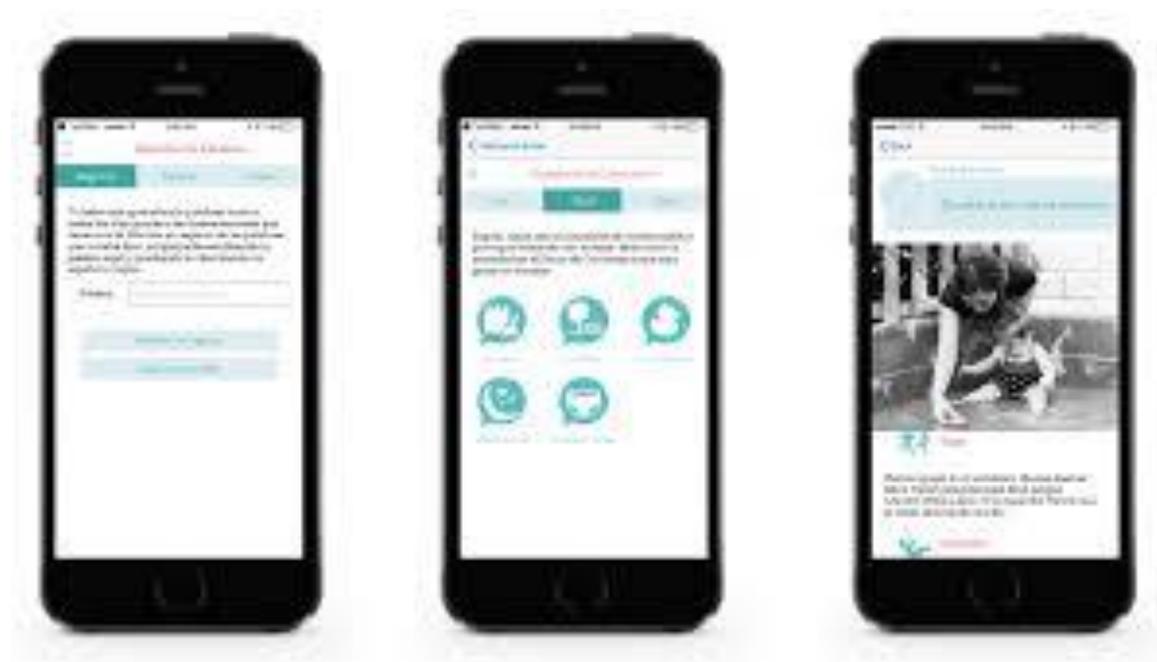


The image features a map of the United States with blue dots marking various locations across the country, representing the geographic spread of the Practice-Based Research Collaborative. Surrounding the map are logos for several partner organizations:

- TOO SMALL TO FAIL**: Logo with stylized figures in a circle.
- TALK READ SING .ORG**: Logo with a speech bubble containing the text.
- COLORADO BRIGHT BEGINNINGS**: Logo with a sun icon.
- LAUP**: Logo with a stylized blue and orange shape.
- SAN MATEO COUNTY LIBRARY**: Logo with a cluster of green and blue circles and the tagline "share the world".
- EDUCARE**: Logo with a red house icon and the tagline "TOUCH. TALK. READ. PLAY." below it.
- PROVIDENCE TALKS**: Logo with a speech bubble.
- NYU School of Medicine**: Logo with the text "NYU LANGONE MEDICAL CENTER" below it.
- Time 2 Talk 2 BABY**: Logo with a speech bubble.
- BOSTON UNIVERSITY**: Logo in a red box.
- TALK WITH ME BABY**: Logo with two smiling faces and a heart.
- Port Salerno TALKS**: Logo with a speech bubble.

# Mobile Apps to Reduce the Word Gap

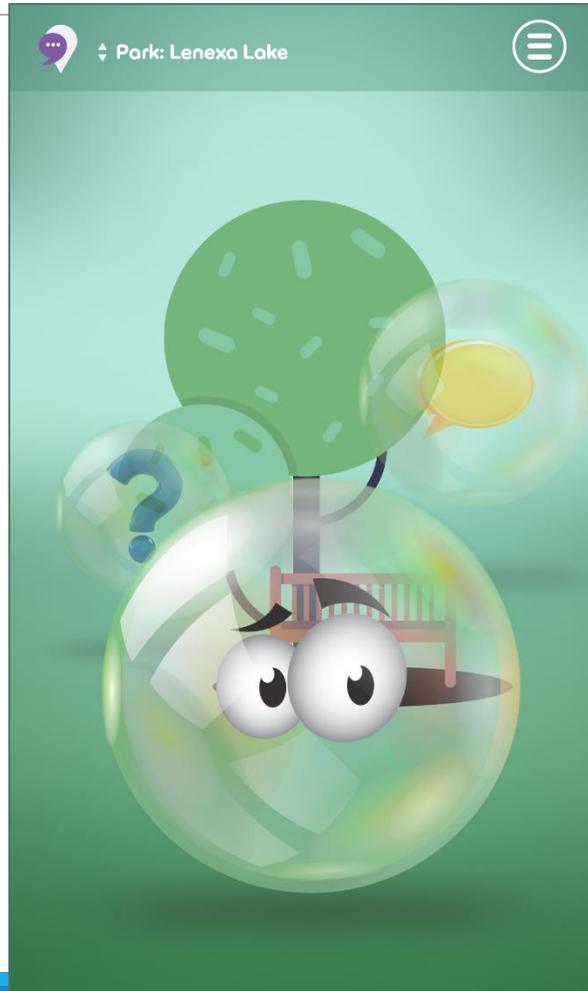
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A Mobile App for Parents On-the-Go

# Talk Around Town Tip Carousel



*When a parent enters a waypoint, three choices of tip-types appear. This allows the parent to choose which type of information he or she wants to see.*

# Summing Up

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- We have known about the adverse effects of the Word Gap for more than 25 years.
- We know what caregiver behaviors can reduce the gap.
- These behaviors can be embedded during all types of daily activities.
- The key is to do these simple behaviors frequently, and begin even before the child has started to say words.
- We have not yet been successful in translating this information in ways that affect the broader population.

# We need to help parents understand that they have the power to make a difference in their child's future....

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And give them the skills for doing this.



WE can all  
**spread the word!**

# What Speech and Language Pathologists Can Do

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- Build awareness: Help make parents aware of how important their child's language is and the important role they play in its development.
- Share language-promoting strategies: Give parents simple hints on how they can foster children's language: **Tune in, Talk More, Take Turns.**
- Identify children showing language delays as early as possible so they can get needed support for language development.



# Contact the BWG Research Network

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## Co-PIs

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## Project Coordinator

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@BWGResNet



Bridging the Word Gap Research Network

# Projects Represented

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Project	Contact
Too Small to Fail	<a href="http://toosmall.org/">http://toosmall.org/</a>
Thirty Million Words	<a href="http://thirtymillionwords.org/">http://thirtymillionwords.org/</a>
Providence Talks	<a href="http://www.providencetalks.org/">http://www.providencetalks.org/</a>
Talk with Me Baby	<a href="http://www.talkwithmebaby.org/about">http://www.talkwithmebaby.org/about</a>

# References

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For more information on this subject, see the following publications:

Fernald, A., Marchman, V. A., & Weisleder, A. (2013). SES differences in language processing skill and vocabulary are evident at 18 months. *Developmental Science*, *16*(2), 234-248.

Hart, R., & Risley, T. R. (1995). *Meaningful differences in the everyday experiences of young American children*. Baltimore: Brookes.

Radesky J.S., Carta J, Bair-Merritt M. (2016). The 30 Million–Word Gap: Relevance for Pediatrics. *JAMA Pediatrics*. Published online July 05, 2016.  
doi:10.1001/jamapediatrics.2016.1486