Global standard for measuring talk in early childhood

300+ research partners
50+ LENA program communities
80+ peer-reviewed articles
19 patents, 4 pending
Early language leads to opportunity
Early brain development

• A baby’s brain grows to 80% of adult size in the first 3 years.

• Builds over one million neural connections/sec.

• Processes speech at 1/5 speed of adults

Synaptic growth in the brain over time

Source: Dr. Kimberly Noble
A tale of two brains:

“2G” brain

“5G” brain

Romeo et al., 2018
It’s Conversational Turns that matter

fMRIs from two female children
(Families’ Backgrounds: high-school education + $50K total family income)

1,220 turns per day
Verbal score = 121

580 turns per day
Verbal score = 90

Romeo et al., Psychological Science, 2018
LENA 10-year longitudinal study

Do LENA measures in early years predict development?

Yes, and turns are the most powerful predictor!

Gilkerson et al., J. Pediatrics 2018
Why can’t we just talk more?
We talk less than we think we do

Those of us that talk the least overestimate the most

Richards, et al., JEI (2017)
Isn’t there an app for that?
The Opportunity We Face

EARLY CHILDHOOD DEVELOPMENT IS A SMART INVESTMENT

The earlier the investment, the greater the return

Source: James Heckman, Nobel Laureate in Economics
Three “truths”

1. Early talk is the key.

2. Parents and caregivers are the secret sauce.

3. You can’t improve what you don’t measure.
“Talk pedometer” technology
Online Functions

Enrollment & authentication  

Recorder management

Recording processing & transfer

Reporting
LENA Feedback

- Feedback
- Turn Rate
- Coaching
- LENA Day
- 3 mos.
The 14 Talking Tips

- 14 easily-learned behaviors
- Used while talking, singing, reading with the child

14 TALKING TIPS to Increase Words & Turns
when talking, reading, or singing with your child

1. Talk about what you’re doing and thinking.
2. Comment on what they’re doing or looking at.
3. Name things that they’re interested in.
4. Get down to their level: face to face.
5. Touch, hug, hold.
6. Tune in and respond to what they look at, do, and say.
7. Wait for their response.
8. Imitate them, and add words.
9. Make faces, use gestures.
10. Take turns - don’t do all the talking.
11. Repeat and add to what they say and do.
12. Follow their lead: do what interests them.
13. Encourage them, be positive.
14. Be silly! Relax and have fun.

AWARD STICKERS
LENA’s Programs

**LENA START™**
Parent-group classes to strengthen community.

**LENA GROW™**
Professional development for early childhood educators.

**LENA HOME™**
Early-language focus for any home-visiting program.

**LENA SP™**
In-depth data for language professionals.
Clear, actionable feedback

1. Daily Adult Words
   - Adult words

2. Daily Conversational Turns
   - Turns

3. Daily TV/Electronic Sound
   - TV and Electronic Sound

Hourly Breakouts

Hourly Reading Minutes

Daily Break Reading

Total Stars earned through this report: 8
LENA START™ | LENA GROW™

LENDA Days

10 Weeks

Feedback Reports

Group Sessions
Who uses LENA in a developing context?

A number of researchers use LENA around the world- from India and Tonga to South Africa, Senegal and Gambia.

Stanford University/Anne Fernald- working in Senegal about maternal beliefs and child development based on caregiver-child interactions

The aim of the project is to establish brain function-for-age curves of infants in both these settings, in order to gain an insight into the effects that malnutrition, social or environmental difficulties and increased risk of disease

Looking at child-caregiver interactions and the relationship with health of parent and child
Questions?

www.lena.org
jsimmons@lena.org