



Dear families and friends,

Thank you so much for helping us with our study! We are grateful that we will get to see many of you again for your “timepoint 2” visits and we look forward to more fun, more stickers, more prizes, and more help from you and your children as we learn about how children are “learning to talk!”

Yours,

Jan Edwards, Principal Investigator

You may have seen LENA in the news!

Below is an excerpt from a British magazine, The Economist 12/27/14, one of the many articles appearing recently about LENA!

“The Language Environment Analysis (LENA) device is like a pedometer, but it keeps track of words, not steps, by analyzing the speech children hear. Parents can use it to monitor, and improve, their patterns of speech, much as a pedometer-wearing couch potato might try to reach 10,000 steps a day, say. A recent study by Dana Suskind shows how promising this approach is. Dr. Suskind is a pediatric cochlear implant surgeon in Chicago. Her new study

shows that the use of a LENA device, combined with a single home visit to give parents advice, produces a 32% increase in the number of words a child hears per hour after six weeks. Dr. Suskind’s *Thirty Million Words Initiative* is now using LENA devices and weekly home visits to improve the linguistic diet of children in Chicago. Parents are taught to make the words they serve up more enriching. For example, instead of telling a child, “Put your shoes on,” one might say instead, “It is time to go out. What

do we have to do?” Other groups are trying similar approaches. In Providence, Rhode Island, Angel Taveras, the mayor, has started a project that uses LENA devices to improve the vocabularies of children in pre-school. Meanwhile, in Chicago and several other places, nurses who visit mothers’ homes to give them advice on health and nutrition also encourage them to chat to their children and read to them aloud. Such interventions are effective and not particularly expensive.”

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Special points of interest:

- *LENA in the news!*
- *L2T LENA lab findings!*
- *Learn how to help your child develop early reading skills!*

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Parents are important contributors to a child’s “language environment”

FAQ's about the LENA

1. What does LENA stand for?

Language ENvironment Analysis

2. Why does my child wear the LENA Digital Language Processor (DLP) for a day?

Language researchers think that each child's home "language environment" has a tremendous effect on that child's language learning. By sending the LENA DLP home researchers can gather this important information and compare it to what a child does when visiting the Learning to Talk Lab.



After a child wears the LENA DLP for a day, it is plugged into a computer, and a computer program makes counts of the things that language researchers think may have an effect on the size of a child's vocabulary: amount of silence and background

noise, television and electronic sounds, number of times the child talks, the number of "turns" the child and another speaker take when they talk to each other, and the number of adult words spoken near the child. The Learning to Talk

"We want to see how a child's home 'language environment' affects how many words that child knows and uses."

team is particularly interested in how many words are directly spoken to a child by the adults in the child's home.

3. How will the LENA help our research and other research in the field?

It will help us know what to tell parents to do to help their children have the large vocabularies needed for success in school! A previous research study found that starting at a very young age, children who heard more words directly spo-

ken to them by the adults in their homes had larger vocabularies, stronger reading skills, and were more prepared to enter school, than children who did not have as many words spoken directly to them at home. At Learning to Talk, because our goal is to study how children learn words and sounds, we want to find out more about why a child has a larger vocabulary if he or she hears more words at home. One way to do this is to compare the LENA report we get for each child to how that particular child did on the speech and language tests we give during the lab visit. We want to see how a child's home "language environment" affects how many words that child knows and uses.



Learning to Talk Lab Findings Concerning LENA

When you and your child came to the Learning to Talk Lab, remember the tasks your child did on the second floor when he or she was "watching movies?" For one of the tasks we were interested in how quickly and correctly your child could show us he or she understands

a word spoken by someone else. Your child was shown

"...results we have gotten from the LENA reports are connected to how quickly a child recognizes familiar words..."

four pictures on the computer screen: for example, a box, a

gift, a bear and a ring. Then your child heard a sentence such as "find the box" and was told by our testers to "use your eyes to find the picture the computer says!" Our Eye Tracking Computer then followed your child's eye movements so we knew what pic-

ture your child looked at and how quickly your child followed the computer's instruction. Tristan Mahr, a PhD student in the Learning to Talk Lab, found that children who did well on this "looking" task were the children who had heard more words spoken directly to them by the adults in their home, as measured by LENA! Following the trail further, he found that children who did the best on this

"looking task" also did well on two of the tasks done in the fourth floor room of our lab that measured how many words a child knows. When Tristan found these connections we were very excited because it says that the results we have gotten from the LENA reports are connected to how quickly a child recognizes familiar words as well as how many words he/she knows!



Tips for Reading to your Child

While most people know that the more you read to your child, the better for speech and language development as well as early reading skills, here are some other things you can do before, during, and after reading time to help your child get ready to read!



- Ask "wh" questions (what, where, who, when, how, why) about the story. This covers the characters involved in the story, the setting, the time frame, and the reasons behind the action: all things that are important for later reading skills.
- Ask open-ended questions about the story rather than yes/no questions. For example, instead of asking "Did you like the elephant in the story?" you will get more words from your child (instead of just "yes or no") if you ask, "Who did you like best in the story?" "What funny things did the elephant do?" etc.
- Tie the story into something familiar to the child or to personal experiences. For example, you could say: "That elephant went to the hamburger place just like we did last week with Grandma, remember? Wait, I can't remember: what did Grandma have? Onion rings or French fries like the elephant?"
- Expand on what the child comments on from the story. For example, if your child says, "Funny elephant!" You could say, "Funny elephant! He's so funny because he always looks for the pig in the wrong place!"
- Give your child feedback on responses to questions about the story. For example, if you ask your child, "Where did the elephant hide?" and your child says, "in the big box!" you could say, "yes, you are right! That elephant couldn't fool you! What a good reader you are!" That teaches a child more words AND another important "school skill:" how we take turns in conversation! To become a good talker and reader we have to learn that when someone asks a question, we listen, think, and then we answer!

Learning to Talk Lab

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Our Investigators

Nicole Breunig, student researcher for the lab, is a second year Masters Degree student in the Department of Communication Sciences at the University of Wisconsin Madison and will graduate this May. Nicole has worked in the lab for 4 years and has done every job possible for Learning to Talk! Because of her extensive lab experience, she is now a lead trainer for our lab examiner team and a visit guide designer. As a visit guide designer, she not only makes sure that a visit to the lab follows the steps needed to get the research information we need, but she ensures that it's well-organized and fun for all! When she is not working for the lab, she is studying for her graduate classes, traveling to Guatemala to provide services for children who need help communicating, preparing for her clinical clients at various sites in Madison, riding her bike, swing dancing, or enjoying country music! Currently, she is in the process of interviewing for jobs as a Speech-Language Pathologist, so she will soon be working in a medical/rehabilitation setting with children who need help communicating with others. We are proud of her outstanding work in the field of communication science and happy she will be graduating to head for new challenges, but her intelligent, calm and always fun presence in the lab will be deeply missed.

Nancy Wermuth, Project Manager

We Want You! Participate in Dane County!

Interested in helping us improve methods for teaching young children? Join our research project! Our study looks at how young children learn sounds and words! Both you and your child can be involved!

Who can participate?

- Children who are 2-5 years old
- Children who are native English speakers
- Children who have normal hearing and are typically developing or have cochlear implants

Families are paid for their participation and your child will receive a small toy and a book.

Transportation (cab) will be provided if you would like it.

How does the study work?

Sessions take place at the University of Wisconsin-Madison's Waisman Center, 1500 Highland Ave, Madison, WI.

Your child will participate in 1-6 sessions and the sessions last about 1-2 hours.

If you would like to learn more about this study, please email us at learningtotalk@comdis.wisc.edu, or call Nancy Wermuth at 608-263-0729, or visit our website, www.learningtotalk.org and enter your information on our **Participate** page. We look forward to working with you!

Please pass this information on to family and friends who might be interested in this study.

Thanks!

