



ARTICLE REFERENCE: Ambrose, S. E., VanDam, M., & Moeller, M.P. (2014). Linguistic input, electronic media, and communication outcomes of toddlers with hearing loss. *Ear and Hearing*, *35*(2), 139-147. doi:10.1097/AUD.0b013e3182a76768

KEYWORDS: Auditory Environment, Media, LENA

WHAT WAS STUDIED, HOW WAS IT STUDIED AND RESULTS:

- WHAT: The authors looked at how children's auditory environments at 2 years of age were related to their language skills at 2 and 3 years of age. The auditory environment included three things: 1) how many words the adults spoke when the child was nearby, 2) how often and for how long the child and adults talked with each other, and 3) the amount of time the child was exposed to sound from media such as TV and radio.
- HOW: To measure the auditory environment, the researchers used a technology called the LENA (Language Environment Analysis), which included 1) a small recording device worn all day by the child and 2) computer software that was later used to analyze the full-day recording.
- RESULTS:
 - The researchers learned that speaking a lot of words when the child was present didn't help the children learn stronger language skills. However, children whose parents engaged them in lots of conversations had stronger language skills at 2 and 3 years of age than children whose parents did not engage them in lots of conversations.
 - The researchers also found that children who lived in homes with high rates of TV and electronic media had more trouble understanding language at 2 years of age. However, it wasn't the rates of media that were directly problematic. Instead, it was that in homes with lots of media, the parent and child engaged in fewer conversations and the reduced conversations were connected to poorer language skills.

HOW THIS INFORMATION MAY BE USEFUL TO YOU AND YOUR CHILD: The take-home points are that it's not enough to talk a lot. Instead, you need to talk with your child about what your child is engaged in at the moment and take the time to allow your child to talk with you about his or her interests. Ask open ended questions and use prompts that elicit talk from your child, like "What do you see in this book?" and "Tell me about what you built with the blocks." Also, turn off the TV and other sources of noise, especially when you have time to spend interacting with your child. In noisy environments, it's harder for children who are hard of hearing to talk with you and you'll both be less likely to engage in long conversations.

WHO WAS STUDIED:

- <u>Number of children:</u> 28
- Age of children: Approximately 24-months of age at Time 1 and 36 months of age at Time 2
- <u>Hearing information</u>: All children were hard of hearing (average better ear pure tone average was 49.9 dB HL, ranged from 22.5-82.5 dB HL) and fit with hearing aids by 12 months of age (average of 4.8 months of age).





WHAT STILL REMAINS TO BE ANSWERED:

- This study hasn't answered if all types of media (such as both radio and TV) have an equally negative effect on parent-child conversations or child language.
- It is of value to replicate these results in a larger sample that includes families from diverse socioeconomic backgrounds.

WHERE CAN I FIND MORE INFORMATION: www.ochistudy.org