

From the archives: Conversations with adults boost child language development, study finds

Note: As early as 2009, research studies were beginning to suggest the importance of adult-child conversational turns. We'd like to share an article from the LENA archives by Dr. Frederick Zimmerman, professor of health policy and management in the Fielding School of Public Health at the University of California, Los Angeles. Here, he discusses his study "Teaching by Listening: The Importance of Adult-Child Conversations to Language Development," which was published in the July 2009 issue of Pediatrics. This commentary was originally published by LENA that same year.

To talk or not to talk is not the question. Numerous studies have underscored the importance and power of exposing children from birth to three with an abundance of talk to help facilitate early childhood language development and increase the chance of academic success later in life. The implication is that adult speech input provides a model for young children to emulate, increasing the likelihood that there is an intrinsic value to talk. In such a framework, one may argue that a mother reading to her child or Baby Einstein talking through a television screen have the same or similar potential to drive early childhood development. Whether the child participates in the language environment is negligible.

The question is whether talk alone is all that's needed or if talk is to be valued for its ability to promote parent-child "conversation turns," where children are encouraged to try out new words and word combinations. In this case, any speech or electronic noise that hinders such back-and-forth interactions could be seen as counterproductive. If this is true, then reading dialogically — for example, reading a toddler a story while continually querying the toddler about the book's narrative or pictures and providing time for the child to respond — would trump a basic monologic rendering of the same story in terms of overall potential to enhance language development.

I examined this issue extensively as the lead researcher for the study "Teaching by Listening: The Importance of Adult-Child Conversations to Language Development," published in the July 2009 issue of Pediatrics.



Parental speech provides a model of language, but it is the child's use of language that helps to solidify and internalize this knowledge.

For the study we used LENA technology over a six-month period to gather naturalistic data from 275 families of children ages 2 months to 48 months, a sample well aligned with US census data on maternal education.

LENA is a revolutionary tool for studying early childhood development, because it is both an objective, norm-referenced and standardized measure and a completely authentic assessment based on naturalistic in-home sampling. In addition to participating in nearly five all-day LENA recordings, study participants were given the PLS-4, a highly regarded means of assessing child language development in preschool.

The results supported our hypothesis that parent-child interaction is best when it's a two-way street. We found that each additional 1,000 adult words a child was exposed to led to a 0.44 increase in the child's PLS-normed score, whereas for every additional 100 conversational turns there was a 1.92 increase in the PLS-normed score. For both stimuli, these changes were approximately one standard deviation from the norm. Therefore, in that standardized sense, adult-child conversations were approximately six times as powerful at aiding language development as adult speech input independent of conversational exchanges.

Why are parent-child conversations such a powerful driver of language development? First, practice makes perfect. This old aphorism is as applicable to language development as anything else. Parental speech provides a model of language, but it is the child's use of language that helps to solidify and internalize this knowledge. Second, I have a suspicion that power of conversational turns lies in the ability of the parent to keep the child in what is known as the "zone of proximal development." Parents work within this zone when they adjust their speech so that it is understandable but slightly challenging for the child. In order for a parent to remain aware of the zone's limits, he or she must maintain ongoing conversations with the child. Third, parent-child conversations provide an opportunity for the parent to actively correct the child's language mistakes.

So while parents should keep reading to their children and narrating daily events, whenever possible they should also try to use questions and exchanges to elicit speech from their children. The power of talk remains uncontested, but we found that conversational turns add an extra boost to that power.

Learn more about LENA SP!



LENA SP provides a richly detailed picture of a child's language environment, for researchers, speech-language pathologists, professionals working with children who are deaf or hard of hearing (DHH), and others who need detailed, scientifically reliable speech-language measurements of children 2 months to 48 months old.

Visit www.LENA.org/LENA-SP for more information.