

Research - on - conversational turns:

What studies published in 2018 can tell us about better brain development

What is a conversational turn?

A conversational turn occurs when a child vocalizes and an adult responds, or an adult speaks and a child responds.



Why look at conversational turns?

Conversational turns have been linked to brain structure and function as well as to long-term outcomes for language skills, socioemotional development, and intelligence.



Effects - of - conversational turns...

In the brain:

Over time:

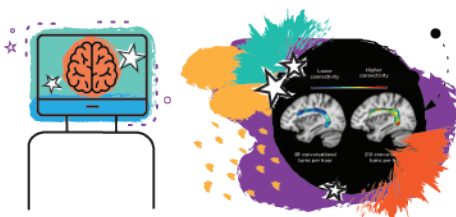
Brain function

Two studies conducted by Harvard and MIT researchers found that conversational turns were linked to both brain activity and structure in four- to six-year-olds. One study discovered that **turns were strongly correlated with brain activation in areas associated with language, such as Wernicke's and Broca's areas.**



Brain structure

Another study focused on linking conversational turns to white matter connectivity between two regions in the brain critical for language. By using diffusion MRI, researchers were able to see the activation of neural pathways in children's brains as the children responded to interactive talk. In fact, the evidence suggests that **conversational turns may strengthen these "information highways,"** allowing parts of the brain to work together more effectively.



How LENA can help

Our programs use objective measurement and focused coaching to support parents and teachers in increasing conversational turns with children. By providing feedback and training, we want to help every parent, caregiver, and teacher harness talk to make a difference in the lives of children.



Ages zero to three

In 2006, LENA researchers recruited more than 300 families with young children to complete daylong audio recordings monthly for six months. These recordings measured adult words, back-and-forth conversation, and other language metrics. **Researchers hoped to see how verbal interaction influenced cognitive development over time.**



Ages nine to 14

Ten years later, researchers conducted the second phase of the study, inviting the original participants, now in early adolescence, for follow-up language and cognitive assessments. **Researchers found that the conversational turns experienced early in life were predictive of children's IQ, verbal comprehension, vocabulary, and other language skills in adolescence.**

For more on interactive talk:

View our on-demand webinar featuring Dr. Jill Gilkerson and Dr. Rachel Romeo, lead researchers on the studies above. Sign up at:

info.lena.org/webinars