



TALK. As soon as a child is born, parents should start talking, singing and rhyming about anything and everything. These interactions help build a child's language skills long before he can talk or understand what's being said. They are also critical in helping him learn to read.

"Love. Talk. Play." has teamed up with researchers at the University of Washington's Institute for Learning & Brain Sciences (I-LABS) to look at the science behind why love, talk and play are important to the development of babies and toddlers.

HOW YOU TALK TO A CHILD MATTERS

Talking in a singsong voice and exaggerated speech — called infant-directed speech or "parentese" — helps a baby learn sounds and words.

- Babies prefer to listen to exaggerated speech sounds compared to the more monotone way adults speak to each other.*¹
- During early word learning, young children learn novel words when they are spoken using infant-directed speech but not when spoken using normal adult speech.²

try this!

Encourage me to share what I think, so that I can learn to express myself and build language skills at the same time.

**FOR HAPPY, HEALTHY
BABIES AND TODDLERS**

LoveTalkPlay.org

try this!

Make silly noises and faces at me. Speak in a high-pitched voice and repeat words. Ask me questions and then answer them.

BABIES AND TODDLERS LEARN LANGUAGE BEST DURING SOCIAL INTERACTIONS

Babies and toddlers learn language best while watching and listening to a responsive social partner during everyday interactions.

- Babies learn foreign language sounds from a live interaction, but not from watching a video or listening to audio sounds.*³
- Pre-verbal babies changed their babbling to match patterns in their caregivers' speech — but only when their caregivers provided immediate verbal responses.⁴

Let's tell the story of the day. Ask me questions, or invite me to add details. Wonder aloud: "What was your favorite part of the day?"

try this!

TALKING TO BABIES TEACHES THEM ABOUT LANGUAGE

Early experiences build the brain for later language learning — even before a baby can talk. Talking and reading to a child exposes him to lots of sounds, words and phrases and builds language skills.

- A baby's ability to recognize the speech sounds of his native language predicts his language development through 30 months of age.*⁵
- Babies and toddlers who heard more words in conversation with caregivers also had bigger vocabularies and higher IQs.⁶
- Babies begin absorbing language and learning the speech sounds of their mother's language while still in the womb. Newborns, only hours old, are able to tell the difference between sounds from their mother's language and a foreign language.*⁷

try this!

Use words like "cold" and "hot" when touching things, so that I learn what the words mean. Also use synonyms like "freezing" or "icy" for cool things, and "sizzling" or "toasty" for warm things.

try this!

Point out written words that we see in our everyday lives, and tell me the name of everything. Talk about interesting words and objects: "Look at the airplane. Those are the wings of the plane. The airplane has a name painted on it."

TALKING TO BABIES AND TODDLERS PROMOTES BRAIN GROWTH AND DEVELOPMENT

When babies watch and listen to others talk, connections are being made in their brains that prepare them for their own language abilities. High-quality verbal input and interactions physically change how the brain is wired.

- When babies hear speech sounds, their brains' wiring changes to help them produce the sounds they hear the most.*⁸
- Babies who hear more language in the home have stronger brain responses to sounds and better word development.*⁹

When I'm younger, tell me stories from picture books that I can touch and chew. As I grow, share stories with rhymes, or read me books with flaps, textures or pop-ups. Let me act out the story if I have trouble sitting still. I can learn while I move!

try this!

* Indicates research from the Institute for Learning & Brain Sciences (I-LABS)

¹ Fernald, A., & Kuhl, P. K. (1987). Acoustic determinants of infant preference for motherese speech. *Infant Behavior and Development*, 10, 279-293.

² Ma, W., Golinkoff, R. M., Houston, D., & Hirsh-Pasek, K. (2011). Word learning in infant- and adult-directed speech. *Language Learning and Development*, 7, 209-225.

³ Kuhl, P. K., Tsao, F. M., & Liu, H. M. (2003). Foreign-language experience in infancy: Effects of short-term exposure and social interaction on phonetic learning. *Proceedings of the National Academy of Sciences*, 100, 9096-9101.

⁴ Goldstein, M. H., & Schwade, J. A. (2008). Social feedback to infants' babbling facilitates rapid phonological processing. *Psychological Science*, 19, 515-522.

⁵ Kuhl, P. K., Conboy, B., Padden, D., Nelson, T., & Pruitt, J. (2005). Early speech perception and later language development: implications for the 'critical period'. *Language Learning and Development*, 1, 237-264.

⁶ Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experiences of young American children*. Baltimore, MD: Paul H. Brookes Publishing Co.

⁷ Moon, C., Lagercrantz, H., & Kuhl, P. K. (2013). Language experienced in utero affects vowel perception after birth: a two-country study. *Acta Paediatrica*, 102, 156-160.

⁸ Imada, T., Zhang, Y., Cheour, M., Taulu, S., Ahonen, A., & Kuhl, P. K. (2006). Infant speech perception activates Broca's area: a developmental magnetoencephalography study. *NeuroReport*, 17, 957-962.

⁹ Garcia-Sierra, A., Rivera-Gaxiola, M., Percaccio, C. R., Conboy, B. T., Romo, H., Klarman, L., Ortiz, S., & Kuhl, P. K. (2011). Bilingual language learning: An ERP study relating early brain responses to speech, language input, and later word production. *Journal of Phonetics*, 39, 546-557.