

Infant Learning Project

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Thank You

We thank our families for your participation. Without your support, our research would not be possible!

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Can Your Baby Really Read?

Megan Wallace

When is the best time to encourage early literacy in your child? With commercials on television guaranteeing that you can teach your baby to read, it is easy to wonder which language behaviors are best to promote in your young child. The National Institute for Literacy (NIL) recently compiled tips on how to encourage literacy in your child at a young age. The first tip, explained by Dr. Timothy Shanahan, a researcher for the NIL, is to read and talk to your baby. He explains the two main predictors of later reading skills as, "how much a child is spoken to and how often the child is read to."

Another way to encourage your infant's early literacy is to allow them to hold the book. At around seven months, infants can learn how a book functions by holding, and sometimes even chewing on it, while their parents read to them (Shanahan & Lonigan, 2010). Other tips mentioned by the NIL include:

- Place your child on your lap while reading to encourage bonding
- Read books that have rhyming words
- Expand upon sounds your child makes during reading
- Create a space where the child can reach and pick their own book
- Model reading your own materials
- Do not put too much pressure on your child
- Enjoy reading with your child!

The American Academy of Pediatrics stresses that the most important part of early literacy is creating a love of books in general. Dr. Pamela High, of the American Academy of Pediatrics stated, "I think that the most important thing parents do by reading with their infants, toddlers, and preschoolers is to teach them to love books and stories so much that they will be very motivated to learn to read, even when it is a difficult task for them.... This activity provides busy parents a reason to slow down and pay total attention to their child and the story" (2010). Even if your infant does not comprehend the plot of the story you are reading, this is an optimal time for

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What is Habituation?

Sarah Salomon

Stop for a moment and listen. Is the fan connected to your building's AC or heating system currently audible? Can you hear the activity of vehicles outside on the street? Unless these noises bear some distinct quality that differentiates them from the normal soundtrack of everyday life, chances are you were unaware of them until you consciously considered their presence. This is due to habituation, a psychological phenomenon that allows humans to distill the flood of sensory information that comprises day-to-day existence into a more manageable collection of relevant data.

Habituation is, simply put, a form of learning. When an infant perceives a new visual stimulus (e.g. a shiny new toy or a photograph of a silly face) their initial reaction is one of interest as they attempt to process the relative value of what they are seeing. However, if the stimulus becomes repetitive, say if the exact same picture of a silly face is shown to a child continuously for several minutes, it loses its significance and the child becomes uninterested. The use of different stimuli as a measure of responsiveness and learning among babies is an important tool for any researcher interested in infant learning. Our research relies on infants' habituation to facial and speech stimuli in order to detect whether infants can tell apart new and familiar pictures or sounds. For example, in some of our experiments, we show infants a series of faces portraying the same expression, like a happy face, until the infant habituates to the facial expression. Then the infant is shown a new facial expression, such as a disgust face, and if the infant dishabituates, or becomes interested again, to the new expression, we infer that the infant can tell apart the facial expressions.

[Can Your Baby Read, p. 2]

teaching pre-literacy concepts as well as providing a great bonding experience between you and your child.

Sources and websites:

Cox, T. (2010). Using Their Words: Helping Preschoolers Get a Good Start in Reading and Writing. *American Academy of Pediatrics*.

<http://www.healthychildren.org/English/ages-stages/preschool/Pages/Using-Their-Words.aspx>

Miranda, C. A. (2010). Raise a Baby Bookworm. *Parenting*. <http://www.parenting.com/article/raise-a-baby-bookworm>

Shanahan, T., & Lonigan, C. J. (2010). The National Early Literacy Panel: A summary of the process and the report. *Educational Researcher*, 39(4), 279-285.

Our Lab Students: Spring 2011

We are happy to welcome back our returning students:

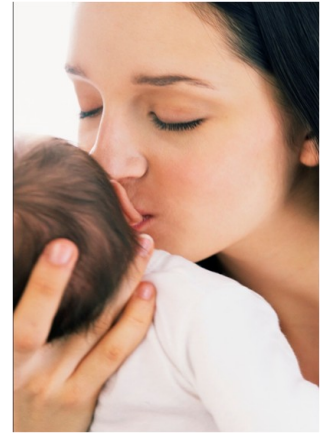
- Lindsey Collins, B.S.
- Lisa Keylon
- Brittney McCormick, B.S.
- Sarah Salomon, B.S.
- Kate Shepard, M.S., CCC-SLP
- Kaia Wakamiya, B.S.
- Megan Wallace, B.S.



Mothers and Infants Share Speech Preferences Across Ages

Lisa Keylon

Mothers tend to speak in various types of infant-directed (ID) speech, or the speech one uses when speaking to infants as opposed to adults, including *directives* (e.g., “Look at the cute little animal.”), *approvals* (e.g., “Good job, baby!”), and *comforts* (e.g., “Oh no, don’t cry, baby.”). Recent research indicates that there is an interesting relationship between the type of speech infants prefer to listen to and the type of speech their mothers use most frequently as the infant ages. Two recent studies by Kitamura and her colleagues have shown that the timing of change in use by mothers and the time in change of preference by infants may actually coincide. One of the studies found that mothers mostly use comforting ID speech during the infants’ first three months, mostly approving speech by the time the infant is 6 months of age, and mostly directives by 9 months. An additional study found that infants prefer to listen to comforting speech at 3 months of age, approving speech by 6 months, and then directive speech by around 9 months. Perhaps this is nature’s way of telling you that your baby is really listening when you speak to him or her, which encourages the early interactions between you and your baby that are so important for your infant’s development.



Sources:

Kitamura, C., & Burnham, D. (2003). Pitch and communicative intent in mothers’ speech: Adjustments for age and sex in the first year. *Infancy, 4*, 85–110.

Kitamura, C., & Lam, C. (2009). Age-specific preferences for infant-directed affective intent. *Infancy, 14*(1), 77-100.

Results of Eye-Tracking ID Faces Study

Kate Shepard

Six-month-old infants viewed silent videos of women speaking approving and comforting infant-directed (ID) speech while the infants sat in front of the eye-tracker. The eye-tracker calculated where infants were looking on the women’s faces. Infants first saw a series of 8 women speaking in one style (e.g., approving), then infants saw two of the same women speaking in the same style but speaking a new utterance. Finally, infants saw two of the same women speaking in a new style (e.g., comforting).



When infants looked at the first faces in the series, they looked longer at both the eyes and mouth of the women’s faces, but when they looked at the last faces in the series, they looked longer at the mouth but not the eyes. Then, when infants saw two women speaking in the same style but with a new utterance, the infants attended to both the eyes and mouth again, suggesting familiarity may recruit infants’ attention to the eyes of the speaker. Finally, when infants saw two of the same women speaking in the new style (e.g., comforting speech), they looked equally long at the eyes, nose, and mouth of the women. These results may indicate infants noticed the change in the speech category being spoken, since they looked more broadly at the facial features of the familiar women speaking in the new speech category.

Overall, this study suggests 6-month-old infants recognize familiar faces after just a few seconds of exposure, and the eyes and mouth of silent speaking faces attract infants’ visual attention. We are currently conducting a follow-up study to test whether 6-month-olds can categorize the silent ID faces using an infant-controlled habituation procedure.