

Why We Chant Nursery Rhymes

The Development of Language and Pre-reading Skills

Ten-month-old Katie holds out her hands toward her caregiver and begins to cry. He looks up from diapering another child and says in a gentle voice, “I see you, Katie. Are you done playing with those rings? I’ll be right there.” After picking Katie up, he looks in her eyes and asks, “Are you ready for a diaper change, Katie? Let’s go over to the diaper table. You can lay down and look at the pictures on the wall while I change your diaper.” As he begins to change her diaper, Katie babbles while pointing at one of the pictures. “Do you see the doggie?” her teacher responds. “That doggie is playing in the grass!”

Even during the routine care activity of changing diapers, this early childhood professional is helping to promote Katie’s language development. Although he may not be conscious of his actions, research has shown that many of the techniques he uses while talking, listening, and responding to Katie will help her learn to speak and understand language. His skill with Katie is important. He is not only fostering more rapid language development, but also giving this child a head start on schooling and life.

The learning of language is surprisingly similar for children across the world. Regardless of which language they are

learning, children develop through the same steps, in the same sequence, at about the same ages. This same sequence and timing is also true for children who are deaf and who are raised in households that use American Sign Language from birth (Newport and Meier 1985). The learning of language is almost certainly one of those universal and unique traits of humans that is inborn and instinctual. But like all our biological inheritances, the success of our unfolding language abilities depends strongly upon our experiences (Shonkoff and Phillips 2000).

In this chapter, we describe the progression of children's language development from birth through age five and explain how specific interactions with caregivers help children to learn these skills. We also describe the skills that toddlers and preschoolers learn that help them become successful readers when they enter school.

Infants

Babies Like to Listen to *Parentese*

From birth, babies listen to adults talking. Newborns look into adults' eyes when they talk to them and may even respond by making sounds of their own.

People generally have a certain way of talking to babies that differs from the way they talk to others. This special kind of talk, which is called *parentese*, is usually spoken more slowly, has a higher pitch, and has more low-to-high and soft-to-loud changes (a singsong quality). Research shows that one-month-olds respond more to parentese than to regular speech directed at adults (Cooper and Aslin 1990). They like it!

Thus, parentese is not just a cute way of talking to babies. It is actually more likely to grab and hold a baby's attention. Parents all over the world use parentese. In fact, even older children use it when talking to a baby. Most of us don't need to be taught to do this; we do it without even noticing. But parentese isn't just "silly talk." This way of talking actually makes some good, scientific sense.

In fact, babies can tell the difference between talk that praises and talk that disapproves. As babies grow, they begin to pay attention to how you sound when talking to them. In one research study, five-month-old babies from English-speaking families listened to audiotapes of parentese in German, Italian, and English (Fernald 1993). Some of the talk praised and encouraged the babies, while other parts of the tape scolded them. The study found that babies smiled when they heard praise in any language, but their faces tensed and they frowned when they heard disapproving words in any language. Even though babies could not see the

speaker and didn't understand the language, they were able to recognize the different emotional tones in the words. Thus, from a very early age, children are aware of the social meaning behind adult talk. This is probably why infants are more responsive to parentese and also why this type of talk is beneficial to children.

Practice Tip

Talking with Infants

You help infants understand what words mean (their *receptive language* ability) when you talk with them while doing things together such as diapering, feeding, or putting them to sleep.

- ◆ Talk so the infant can see your face. Lift the infant up to you or bend down to the infant so your face is directly in front of the infant's face when talking.
- ◆ Use *self talk*. Talk about what you are doing with the infant: "I'm putting your diaper in the pail . . . now I'm getting out a clean diaper . . ."
- ◆ Describe your actions as the infant watches you: "I'm picking up the toys so we can go for a walk outside."
- ◆ Use *parallel talk*. Use words to describe what the infant is doing, seeing, and feeling. "You see the ball on the floor. You want the ball. You're reaching for it. You got the ball!"
- ◆ Provide *labels* for things the infant is experiencing. When on a walk, point out and describe the trees, cars, birds, and other things you see on the way.
- ◆ *Expand* the infant's understanding by adding more information. "There's a bird. The bird is flying."

Babies Begin to Understand What Words Mean

Even before they can talk, babies begin to understand the meaning of some words (their receptive language ability). This is a simple but important finding. Some adults think talking to babies before they can answer back is silly, but this isn't true. Babies are learning language long before they can speak.

One research study found that babies begin to understand the words “mommy” and “daddy” as early as six months old (Tincoff and Jusczyk 1999). Babies in this study looked more at the picture of their father when they heard the word “daddy” and more at the picture of their mother when they heard “mommy.” On the other hand, they did not look more at pictures of men or women who were not their parents when they heard “mommy” or “daddy” being spoken.

By eight months, many infants demonstrate understanding of other commonly used words. In one study, over half of the 1,800 parents in the study reported that their eight-month-olds could understand their own name as well as “mommy,” “daddy,” “peekaboo,” “bye,” “bottle,” and “no” (Fenson, Dale, Resnick, Bates, Thal, and Petchick 1994). By ten months, children’s understanding of words had expanded. Parents reported that over half of the ten-month-olds could understand “all gone,” “dog,” “uh oh,” “ball,” “night night,” “pat-a-cake,” “diaper,” “kiss,” “book,” “yum yum,” and “grandma.” Keep in mind that the number of words individual children can understand at this age varies. In another study, parents reported that their ten-month-olds could understand an average of about eighteen words, with some parents reporting as few as six or as many as thirty-five words (Bates, Bretherton, and Snyder 1988).

PROMISING PRACTICE

Responding to Cries as Communication

What We Saw

The caregiver plays with an infant on the floor, encouraging him to reach for a toy. The child loses interest and starts to fuss, so the caregiver picks him up, saying, “Maybe you’re hungry.” She carries him as she checks the notebook for the time of his last feeding. She gets an empty bottle out of the cupboard, asking “Is this what you want?” The infant smiles broadly. The caregiver talks to and holds the baby as she mixes his bottle. “Look at that smile . . . You are hungry.” As she sits with the infant in a rocking chair, she shows him the bottle and waits. She asks, “Want it?” The infant reaches out to hold the bottle, and they settle in for the feeding.

What It Means

The caregiver’s sensitive interaction style helps to build the infant’s communication skills. She asks the infant what he

wants and waits for a response. She is sensitive to his nonverbal cues, and *speaks for the child*, providing the words for the nonverbal response the child gives. The infant is learning that he can communicate his needs to adults by using body movements, facial expressions, and vocalization. When the caregiver correctly reads these messages, the infant does not need to resort to crying.

Babies “Talk” to You Even Before They Say Their First Words

During the first month of life, babies communicate by crying. Anytime they cry, they are trying to tell us something. However, not long after being born, babies learn to make cooing sounds, or long vowel sounds such as “uuuuu.” When they are about six to seven months old, they begin to babble consonant and vowel sounds over and over, such as “babababa-ba” (Bee 2000).

When babies are as young as two days old, they often vocalize (make sounds) when people talk to them (Rosenthal 1982). In other words, they “talk” to adults at the same time that adults are talking to them. However, beginning around the age of four months, babies learn that “conversations” require *turn-taking*. That is, when one person is talking, the other remains silent until the person finishes and waits for them to take their turn. Even more surprising, research shows that four-month-olds pause after their mother has finished talking before taking their turn in a “conversation.” In fact, just like pauses between turns in adult conversations, the amount of time that babies pause is about the same as the length of pause their mothers wait to speak after their babies have finished vocalizing (Beebe, Alson, Jaffe, Feldstein, and Crown 1988). They make sure it really is their turn, then they “talk” to you. Their language may not be real words, but it is true interaction and communication.

When babies are eight to ten months old, they also begin to use simple gestures, or sign language, to communicate. Over half of the eight-month-olds in one study raised their arms to show that they wanted to be picked up, used gestures to show or give things to others, and smacked their lips to show that something tasted good (Fenson et al. 1994). By ten months, half of the children communicated by pointing, waving, and making requests through gestures. The ability to use gestures signals the onset of *intentional communication* (“talking” with a purpose). This is a key step toward talking.

 **Practice Tip**

Beginning Conversations

- ◆ Pause and wait for the infant to vocalize (cooing or babbling or even just wiggling) when talking to an infant. If you initially get no response, talk back and wait again for the infant to take a turn.
- ◆ Repeat the sound when the infant babbles, to initiate a “conversation,” and then talk back, using words to describe the infant’s actions or experiences.
- ◆ Play turn-taking games such as peekaboo or so big, or even rolling a ball back and forth. Infants love these games because they are predictable. These games teach about cause and effect as well as turn-taking.
- ◆ Be sensitive to the infant’s responses. When the infant looks away or fusses, it means that it is time to stop.

Table 1.1: Steps in the Development of Language

Age of child	Language skills
Newborn infant	<ul style="list-style-type: none"> • Communicates primarily by crying • Listens to speech, is especially attentive to <i>parentese</i>
1–2 months old	<ul style="list-style-type: none"> • Laughs and makes cooing vowel sounds, such as “uuuu”
4–5 months old	<ul style="list-style-type: none"> • Learns to take turns by listening to another speaker and babbling when they pause (<i>turn-taking</i> skills) • Recognizes intonation of speech, smiles more when people use a pleasant tone of voice
6–7 months old	<ul style="list-style-type: none"> • Babbles by using repetitive strings of consonants and vowels, such as “bababababa” • Begins to understand the words “mommy” and “daddy”

7–8 months old	<ul style="list-style-type: none"> • Begins to understand other common words such as “bye” or “no” (<i>receptive language</i>)
8–10 months old	<ul style="list-style-type: none"> • Uses gestures such as raising their arms or pointing for things, along with sounds, to communicate (<i>intentional communication</i>)
12–13 months old	<ul style="list-style-type: none"> • Understands almost 50 words • Says their first words (<i>expressive language</i>)
12–18 months old	<ul style="list-style-type: none"> • Uses holophrases, by saying one word while also using a gesture to communicate meaning, such as saying “juice” while pointing to the refrigerator to represent the sentence “I want juice.”
18–24 months	<ul style="list-style-type: none"> • Vocabulary spurt begins: Learns to say 10–30 words within a few weeks, most of the words learned are nouns (words for objects) • Says two words together to form a short sentence
27–36 months	<ul style="list-style-type: none"> • Begins to learn some basic grammar: uses plurals, past tense, verbs such as “is” and “does,” and prepositions

BE CONCERNED ABOUT THE INFANT’S LANGUAGE DEVELOPMENT DURING THE FIRST YEAR IF:

- ◆ The infant has frequent ear infections or chronic fluid in the middle ear. (The infant may not be hearing sounds or speech clearly.)
- ◆ An infant used to babble and then stops making sounds. (The infant may have a hearing impairment.)
- ◆ The infant, after eight to ten months, doesn’t look when the caregiver points to things. (Joint attention is an important step in communicating.)
- ◆ The infant doesn’t participate in interactive games such as peekaboo. (The infant hasn’t experienced the joy of communicating with others.)

Older Infants Learn to Say Their First Words

Researchers have observed children as young as ten months old beginning to say their first words (Bates, Bretherton, and Snyder 1988). These words include “hi,” “bye,” and “mama” but also often include sounds that parents understand to represent words, such as an “mmmm” sound that was used by their infants to ask for something. However, most children begin to say their first words when they are about one year old (Fenson et al. 1994).

Learning to say words is called *expressive language*. In one research study, about half of the twelve-month-old children could say “daddy” and “mommy,” half of the thirteen-month-old children could say “bye,” and over half of the fourteen-month-old children could say “hi,” “uh oh,” and “dog” (Fernald 1993). “Mommy,” “daddy,” “dog,” and “hi” were also the most common words found among lists of the first ten words said by children in a separate study (Nelson 1973).

Helping Infants’ Language Development

Babies Make More Vocalizations When You Play with Them

When you play with babies, they often respond with their own vocalizations (such as babbling or cooing). In one study, researchers observed mothers playing with their babies on their laps every week when the babies were one to six months old (Hsu and Fogel 2001). They found that babies made more sounds (other than crying) when they were more involved with their mothers during play. For example, babies playing a game such as peekaboo with their mothers vocalized more than other babies did. This active communication between mothers and infants also led to more “speech-like” sounds by babies when they were between one and four months old.

Joint Attention Helps Babies Learn Language

Research shows that talking to babies about what they are interested in helps them learn language skills more quickly. When babies and their caregivers are both focused on the same object or activity (called *joint attention*), this turns out to be very important to children’s learning. To create joint attention, adults have to pay close attention to what babies are looking at or doing and interpret their meanings or interests.

As children grow older, joint attention can be achieved in other ways. Caregivers may try to direct a baby’s attention to a particular toy

 **Practice Tip**

Talking to Babies about What They Are Interested In

By eight to ten months, infants have learned to pay attention to the same thing as you and may even be able to direct your attention to something that interests them. This is a crucial step in the development of communication.

- ◆ Look at the infant, then at an object while talking about it, to get the infant to look at the object.
- ◆ Follow the infant's gaze to an object and talk about what is seen.
- ◆ Point to an object and talk about it, encouraging the infant to look.
- ◆ Look at books and pictures together, pointing to and talking about what is seen.

These actions help infants make the connection between words and objects.

or activity, even though the baby is looking at something else. This is more difficult for a young child, because it asks him to adapt to you. For example, a caregiver might point to a rabbit in the yard and say “Do you see the rabbit? Can you see her chewing grass?” Caregivers, however, should begin by noticing what babies are already looking at and talk to them about those objects or activities. For example, a teacher might notice that a baby is looking at the mobile hanging above the diaper table and wind the mobile, saying, “Are you looking at the stars up there? Can you see them move?” Researchers find that two-year-olds have larger vocabularies and talk in longer sentences if, back when they were six to eight months old, their parents encouraged joint attention more often with them by directing their attention and by noticing and talking about what the infants were already interested in (Saxon, Colombo, Robinson, and Frick 2000).

PROMISING PRACTICE

Joint Attention

What We Saw

The caregiver sits in a rocking chair with two infants in her lap. Ten-month-old Zack points to a child and makes a sound. Sue responds as if Zack had spoken a name, “Yes, that’s Sidney. There’s Tyler.” Zack points again at Tyler, and Sue says, “Tyler’s dancing.” He points again and Sue says, “Deb is changing Griffen’s diaper.” Zack points to a poster on the door and says, “Bi Bir.” The caregiver responds, “Yes, that’s Big Bird. He has a two on his front. I see Elmo and Ernie and Cookie Monster . . .”

What It Means

Zack has mastered a powerful tool for learning language: pointing. By providing a label or description to what he points to, the caregiver is helping Zack build his *receptive vocabulary* (words he can understand, even though he can’t say them yet). Through *joint attention*, Zack has learned that he can communicate with others.

Two more research studies confirm that older infants will learn language more quickly if caregivers talk to them about the activities that have already caught their interest. In one study, children learned to imitate and speak their first words more quickly when their mothers talked to them about what they were doing or about the toys they were playing with when they were nine months old (Tamis-Lemonda, Bornstein, and Baumwell 2001). For example, mothers who were playing with their children might have said, “You’re shaking the rattle!” or “That’s a doggie,” attaching words to the child’s own actions. Praising the children’s efforts by encouraging them and showing them how to do new things, by saying things such as “Can you move the car like this?” also helped children learn to say their first words more quickly.

You may have noticed that older infants often try to give you their toy when you are sitting near them. Researchers in one study observed eleven-month-olds offering toys to their mothers. The infants had better language skills three months later if mothers responded by talking about the toy (Newland, Roggman, and Boyce 2001). This talk might

have included taking the toy and moving it around or telling the child the name of the toy. For example, one mother might have said, “Thank you!” when given the toy. Then she might have continued to talk about the toy by saying, “Look at this kitty. Meow! Meow!” while moving the toy kitten next to her baby.

RESOURCE BOOKS

Among the many excellent resource books that can give you ideas for interactive games to play with infants, here are some we recommend.

Hast, F. and A. Hollyfield. 2001. *More infant and toddler experiences*. Saint Paul, MN: Redleaf Press.

Silberg, J. 2001. *Games to play with babies*. Beltsville, MD: Gryphon House.

Lansky, V. 2001. *Games babies play from birth to twelve months*. Minnetonka, MN: Book Peddlers.

Martin, E. 1988. *Baby games: The joyful guide to child's play from birth to three years*. Philadelphia: Running Press.

Dougherty, D. P. 2001. *How to talk to your baby: A guide to maximizing your child's language and learning skills*. New York: Avery/Penguin Putnam Inc.

Practice Tip

Reading Books with Infants

- ◆ Provide cloth or vinyl books the infant can grasp and mouth.
- ◆ Choose books with simple illustrations of familiar objects.
- ◆ Sit with the infant in your lap.
- ◆ Use an expressive voice.
- ◆ Use books as part of a routine, such as before sleep.
- ◆ Label the objects, people, and actions in the book.
- ◆ Read nursery rhymes and poems. Infants are drawn to their lilting rhythms.
- ◆ Stop when the infant loses interest.