

Making a Case for the Need to Nurture Early Brain Development

At birth, a child's brain is about **25%** of its approximate weight at adulthood. **At age 3**, a child's brain has reached **90%** of its full potential! Between the ages of 3 and 10, synapses that are used will remain, while those that are unused tend to disappear. (*American Academy of Pediatrics*)



- In an average year, children hear
- 11 million words (professional homes)
 - 6 million words in working class homes
 - 3 million words in welfare homes

By age 3, these children had huge differences in vocabulary and in IQ scores. (*Meaningful Differences in the Everyday Experience of Young American Children – Betty Hart & Todd Rigley*)



“(Children) imitate much of what they see and hear, and it is this ability that allows a fifteen-month-old child to say his first words. By age two, the average child expands his vocabulary to include nearly three hundred words. That figure is more than tripled again in the next year, at the end of which the child already understands two-thirds to three-quarters of the words he will use in future daily life. Once he learns to talk, he will average as many as ten new words a day --- not one of which is on a flashcard. Much of that pace is determined, however, by the amount and richness of the language he hears.” (*The Read-Aloud Handbook, Jim Trelease*)



A child needs ~1000 hours of book time before school to be prepared for school. 80% of remedial readers in first grade will still be in remedial reading by the 4th grade. (*Robert Needlman, MD, co-founder of ROR*)



Research has demonstrated that phonemic awareness is necessary for success in learning to read and write. Phonemic awareness has only to do with sounds one hears; it has nothing to do with letters one sees. (*Literacy Awareness: From Acts to Awareness, Marie Clay*)

For infants and toddlers as well as pre-school age children, books provide a context for language development. However, the mere presence of books may not stimulate a child's interest in reading. Parents model for their children a love or an aversion to reading by their reading behavior. Children who see their parents reading for pleasure will learn volumes about the positive association with reading.

In addition, the positive nurturing interaction between adult and child during a read aloud will shape a child's language development as well as his attitude about the reading process. Dr. Ron Lally, director of an educational research and development laboratory in San Francisco, states that "...reading to children, talking to them and engaging them in language experiences at an early age are very important. The way to do it, though, is through relationships, not by sticking the child in front of a video ... It's having the child participate in exchanges – giving the child the chance to communicate back."