

## **Nurturing Brain Connections: Maximize your child's full potential**

**By: Lisa J. Redoble**

Staff Development Specialist,  
Tutor Time International Preschool & Kindergarten

In the past several years, there have been a lot of researches done on brain development. Findings established the importance of stimulation especially during the first three years of life and its influence on the developing brain.

During birth, babies are born with 100 billion brain cells called *neurons* that need to be "connected" or "wired" to each other. The genes are responsible for forming the neurons and general connections in the different regions of the brain; but it is the experience from the environment that is responsible for building the connections between the neurons. Therefore, the kind of care and experiences a child receives plays a big role in how the brain wires itself. The more positive and stimulating an experience is, the more connections build and strengthen in the brain. This network of connections influences socio-emotional, physical and intellectual capacity (memory, problem solving, and language).

What then is the importance of this finding? In the past, it was believed that brain development was determined by genetics and brain growth. We now know that the brain continues to form after birth and that early experiences influence the development of the brain and its connections. Therefore, the development of your child's brain during his formative years holds the key to your child's future. Below are some ways to maximize your child's potential especially between the ages 0-5.

- 1) Provide a nurturing and safe environment for your child. Touch is a fundamental and important source of security to a child. When the skin is touched, a signal is sent to the brain to grow and make connections. Babies and young children feel your love through the gentle touches you give as well the positive consistent responses for his needs for food and comfort.

Poor experiences such as insensitive care have found to have more devastating effects on brain development. When children are stressed, a hormone called *cortisol* is released in the brain. This "stress" hormone slows down the number of the connections in the brain and affects the region of the brain that regulates emotional response and attachment to be smaller than normal. Reduce your baby's stress by making his world safe and predictable. Remove any physical threats by providing safe play environment. Respond to his needs and create predictable daily routines.

- 2) Provide enriching brain-building experiences. Young children learn by doing and using their 5 senses – touching, tasting, smelling, seeing, talking and listening. Expose your child to new things to help the brain strengthen old connections and make new ones.
  - a. Observe your child at play. How does he play? Did you notice that he has to hold and manipulate a toy? Have you ever wondered why he always placed things into his mouth when he was a baby and how he has to touch things? Well, this is the way your child is learning about the world – through his five (5) senses! Therefore, a variety of hands-on experiences

**Nurturing Brain Connections: Maximize your child's full potential**

By: Lisa J. Redoble, Staff Development Specialist, Tutor Time International Preschool & Kindergarten

Published in *Media Kawasan Kelapa Gading, Puri, Pluit, Pondok Indah, Sunter, Pulo Mas and Serpong, March 2009*

will develop the different areas of the brain. Allow him to mess up (as long as he it is safe), to touch, feel, smell, see and listen using different materials.

- b. Provide opportunities for problem solving, use memory and critical thinking. As parents, we tend to do things for our child since he is still young and has limited abilities. However, providing challenging appropriate opportunities will be beneficial for your child's thinking skills. Allow your child to solve simple problems such as reaching for a toy under a table, choosing clothes for an occasion, or as simple as what toy he wants to play with. Of course, your guidance is necessary. Enhance your child's thinking skills by asking questions instead of giving the answer.
  - c. Provide lots of opportunities and time for practice and repetition. Children learn through repetition. Have you ever noticed how children will ask for the same thing over and over again? For example, your child repetitively asks for a particular book to be read or play the same game with a toy again and again. This may be boring and exhausting to you but it is not for your child – his brain is internalizing the experience and at the same building up the connections in his brain. However, be careful not to over stimulate your child since this will also hinder connections in the brain. Stop the activity when your child is over stimulated and continue it later when your child is ready again.
  - d. Play a variety of music from different types of genre, instruments, or cultures as well as sing songs with your child. There is a great deal of evidence suggesting that experience with music at an early age can enhance a child's mathematical ability. Aside from this, music and songs introduces rhythm, rhyme, sequences/patterns, and develops spatial skills. It is between the ages of 1 and 4 when children develop the capacity to understand logic and mathematical concepts so what better time to introduce music to your child.
- 3) Talk, talk, and talk to your baby. Experiences with language help build baby's brain. Children need to hear language from birth - long before they can speak. Research found that young children whose mother talked with them when they were infants have bigger vocabularies and a solid foundation for later communication. Provide rich language experiences where your child actively participates in - when your child babbles answer him by babbling back, recite nursery rhymes, and read aloud to your child, to name a few activities. As your child grows, challenge your child by telling each other stories, asking open-ended questions and read and write together.
- 4) Good nutrition is necessary for the development of the brain and the body before a child is born and in the early years of life. The saying "Breast milk is best for your baby" is very relevant. Breast milk remains to be an excellent source of liquid nutrition up to the toddler years. As your child grows his nutritional needs will differ. Some of the specific foods that children should eat more of to stimulate brain function and growth are leafy green vegetables, fish (i.e. salmon which is a good source of omega 3), nuts, lean meats, fresh fruits and dairy products. Vitamin and mineral supplements also can be helpful.

- 5) *You can also get help by finding high-quality child care. Look for a center that provides a safe, clean environment, caring and qualified staff, and offers enriching experiences that develop him physically, socially, emotionally and intellectually.*

And last but not the least, take care of yourself. Your child needs the loving, nurturing and supportive care of parents who will help him maximize his full potential.