

## **Understand How Children Learn**

By Lee Pennington Neill, PhD

We learn to learn by organizing the information we receive. The first information we receive is sensory (skin, muscles, joints, gravity, smell, vision, and hearing). We organize that information physically first. The first task of childhood is to be physically efficient. After all, our only tool for acting on the world is our physical body.

Children first need to become physically skilled, and their play demonstrates that need. Through play, they learn all about their bodies so they will be as safe and secure in the world as possible. This is true for all children, no matter what handicaps prevent full physical exploration of the world.

In the process of carrying on Nature's scheme ( to be physically efficient, thus, safe in the world) children gather enormous amounts of data which is stored in their brains. In the conscious parts of the brain (the neocortex, including the left & right hemispheres), thinking occurs. Most people tend to think only of the conscious parts of the brain, forgetting that the abstract thought area of the brain is supported, fed, soothed, driven and assisted by lower (subcortical) structures. In childhood, those "below the cortex" structures of the brain serve as assistants in the organizing process, helping get the information, sorting it out, analyzing, testing, playing with it, "making sense" of it.

In the conscious neocortex, the left hemisphere is interested in data that is related to symbolic and verbal communication; understanding sequences; analyzing specifics; initiating sequence of activity, focusing. It is thought of as the language hemisphere because of its interest in analyzing symbolic communication.

The right hemisphere is interested in information that is visual and spatial in nature; holistic and global; intuitive and emotional. It is concerned with maintaining and improving the quality of motor activity. It scans. The right hemisphere is considered our non-verbal hemisphere because it is concerned with the non-verbal aspects of communication: facial expression, postural or body language cues, tone of voice, movement. Approximately 70 percent of our communication is non-verbal.

For children to learn as efficiently and adaptively as possible, they must have instant access to both ways of perceiving the world. Sometimes it is important to focus on specific details (left hemisphere); sometimes it is best to scan and get "the big picture" (right hemisphere). Ideally, we are built to have two

ways of knowing about the world – each very important and valuable. Certain structures which assist in the sharing of information between then left and right hemispheres are not mature until the end of the first decade of life.

Our schools today, emphasizing "testable" or quantifiable skills, seem to focus greatly on the kinds of skills which the left hemisphere best assists. The best schools offer a balance, assisting children to both focus and scan, analyze and intuitively listen and experience.

Children don't always use their brains the same way that adults do. Lower centers- those concerned with drives, movement, emotion, smell, gathering of information for recall – are busy seeking out information to organize and make sense of the world. The child's picture is incomplete – their brains, seeking information to help them best adapt to a world not yet fully experienced, tend to be attracted to experiences that they can physically experience. Adults, with years more experience and maturation of their neural structures, perceive and act on the world in more abstract, less physical ways.

Parents and teachers need to frequently remind themselves that they do not perceive the world the same way that their children do. We often make judgements based upon our own perceptions, not remembering that our pictures are different, our focuses different. The only way we can being to bridge the gap between how we think and how kids think is to WATCH.

If we watch children at play, in nature, in school, at work, we'll see their need to physically experience, to experiment, to "mess around" to play and interact with the world. If we ignore our verbal prowess and attend to the spatial, movement – oriented, intuitive and global kinds of processes children use to help themselves gain knowledge, we'll best help them. We need to "be still and learn", comfortable that, in not interrupting this very old scheme, we're helping more than when we try to direct their activities with our grown-up brains.