The Role of Movement in Learning
May 9, 2017

How does movement in the body relate to learning? Walking into any Waldorf classroom at certain times of the day you will likely see children jumping rope, dancing, doing activities with bean bags, or balls, or other activities related to movement. You may wonder why so much emphasis on movement and not more time doing seat work? Many tend to think that the activity of learning is limited to the mind, as if the body's only role in learning is only to carry the mind around where it needed to go. On the contrary, the body is as much involved with learning as the head is.

In her book, Smart Moves: Why Learning Is Not All In Your Head, Carla Hannaford writes:

Thinking and learning are not all in our head. On the contrary, the body plays an integral part in all our intellectual processes from our earliest moments in utero right through to old age. It is our body's senses that feed the brain environmental information with which to form an understanding of the world and from which to draw when creating new possibilities. And it is our movements that not only express knowledge and facilitate greater cognitive function, they actually grow the brain as they increase in complexity. Our entire brain structure is intimately connected to and grown by the movement mechanisms within our body.

In my role as Education Support teacher, my goal for students is to achieve "body-free thinking". Because movement of the body and thinking are so interdependent, if there is any hindrance in the physical body of a student, this may translate as a setback to learning. This means that the student is having to unconsciously expend extra time and energy on getting their body to function the right way (whether to take in new information through their senses, or through expression of their understanding) that that energy takes away from the body's ability to support efficient and fluent learning. There are two important areas I look at in a student who may be having academic difficulties - how are this child's foundational senses developing? Has the child retained any early developmental movements?

The healthy functioning of the senses is everything to learning, and when we speak of the senses, we don't just mean the senses from the perspective of the five basic senses we are used to hearing about (sight, smell, taste, touch and hearing) but also the senses which are foundational to all learning and begin developing in utero; they are: self-movement (or proprioception), sense of life (or well-being), and balance (or vestibular). When one of these is not fully functioning or developing, learning cannot take place to its highest capacity.

Take reading for example: we sit upright when reading to view the page, we hold the book, our eyes move from left to right to view the words, as the eyes take in what they see, the brain decodes the shapes of the letters and connects them to phonemes (or sounds) and then reorganizes those sounds into words, which then become concepts, and which then connects to memory, etc. Imagine now that the vestibular system of a student is not fully developed, this child will be struggling with step one (sitting upright) even before the eyes meet the page and have a chance to take in the letters they are looking at. The body will be so preoccupied with trying to bring the balance system into harmony that the child is having to expend much more than the usual amount of energy on trying to focus the eyes on the letters on the page that they are soon exhausted by the effort and reading becomes a dreaded chore rather than a challenge.

Another obstacle to the learning process is the retention of early movement patterns. In the normal course of a young child's development, starting in utero, goes through stages of developmental reflexes, most of which should be integrated by age three, and in some cases, transformed into more sophisticated reflexes that we use for the rest of our lives. Sometimes, for many different reasons, the reflexes are retained, rather than integrated, and they create unconscious responses in the body that hinder fluid movement and "body-free" learning. Many of the reflexes are related to the baby's experience of crawling on hands and knees. Imagine the young child, shortly before they begin to crawl, rocking back and forth on hands and knees. This is one of the early experiences where the movement of the body is training the eye's ability to see near and far; as the baby rocks back, they look down, as they rock forward, they look up and so the vision becomes more sophisticated. If a child, on the other hand, skips this phase of crawling you may later on discover that this child has problems with reading because the eyes have not yet fully developed that capacity to adjust their near and far vision, and thus they eyes have a hard time making sense of letters on a page.

The good news is that there are ways to help remediate any such challenges, to remove the hindrances some children (or adults) experience and to help children reach their full potential of confident, fluid movement and body-free learning. Not to mention there are many things parents can do at home to help support the healthy development of the senses and early movement patterns in young children:

For babies, avoid the “container shuffle” (walkers, swings, bouncers, carriers) and allow lots of floor time; click here (https://starfishtherapies.wordpress.com/2014/11/11/avoiding-the-container-shuffle-with-your-baby/) for more information on this topic

Child-directed, unstructured free play (especially outdoors)

Doing chores (especially those involving “heavy work”) - sweeping, mopping, wiping down tables, raking, shoveling, washing dishes, etc.

Allowing children to freely explore their environment (let them climb trees and get dirty!)

At the end of the day we can be grateful to our bodies for the experiences of the world they have helped us collect and convey to the brain for learning to take place. Einstein said, “Learning is experience. Everything else is just information.” Healthy cultivation of the body and meaningful movement will contribute to rich learning experiences that last us a lifetime.

~Submitted by Erin McNamara, Education Support Teacher