Body/Brain Connection

The following is reprinted with permission from author Jean Blaydes Madigan, a Neurokinesiologist from Murphy, Texas and a leading expert in the body/brain connection to learning.

"What makes us move, makes us think. New learning follows established motor patterns first before it is stored in the cortex. Therefore, if we teach our students to move better, the better thinkers they will become. The brain seeks patterns. Locomotor movements are built on patterns. Information that is arranged in patterns is more easily processed, retained and retrieved.

Cross lateralization/crossing the midline; when one crosses the midline, the brain begins to make new connections and the right and left hemispheres begin to work together. This communication process organizes the brain for better concentration and problem solving. Crossing the midline integrates brain hemispheres to enable the brain to organize itself. When students perform cross lateral activities, blood flow is increased in all parts of the brain, making it more alert and energized for stronger, more cohesive learning. Movements that cross the midline unify the cognitive and motor regions of the brain: the cerebellum, basal ganglia, and corpus callosum while stimulating the production of neurotrophins that increase the number of synaptic connections (Dennison, Hannaford).

Eye-tracking exercises and peripheral vision development help reading. One of the reasons students have trouble with reading is because of the lack of eye fitness. When students watch screens, their eyes lock in constant distant vision and the muscles that control eye movement atrophy. Physical education curriculum provides this avenue for strengthening eye muscles. Tracking exercises, manipulatives, navigation activities and target games exercise the eye muscles, making the eyes fit to read. The brain is attracted to novelty. The brain learns best when more of the senses are involved. Color, sounds, music, smells, manipulatives and navigating space are better remembered. Learning environments filled with enriched sensory input enhances cognition. Brain compatible learning perceived as FUN increases success."