



LEARN... LAUGH & GROW

LEARNING FOUNDATIONS

Submitted by _____
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Education • Learning • Test Scores • Oh, My!

Education and our children's ability to learn with ease are prominent topics today as we struggle to understand why today's students are falling behind.

As a technological society, we know education is the foundation for success. But what are we missing? What are our children missing? What corrective actions can we take as parents and as a community to reverse this trend?

Neuroscience has some interesting answers for us. It ties into a technological society and expands our understanding of how we actually learn. The rapid pace of technological innovation has dramatically changed our homes and our everyday world. Children are spending more and more time in front of a 'screen' whether TV screen, computer screen, or hand-held device. Parents are also, but neuroscience submits there is a significant difference between these effects on children and on adults due to the difference in our brains, a mature adult brain or a young developing brain. In addition, the time spent in front of a TV takes time away from other significant activities, notably physical exercise.

Babies are born with 100 billion neurons (brain cells) but most are not connected yet; they are waiting for sensory input to form their connections and create pathways – this is the foundation of how we learn. Between the ages of 3 and 10, a child's brain activity is more than twice that of adults as the developing brain establishes trillions of connections! The important element is that most of these connections are mediated through movement and coordinated sensory input.

The lack of coordinated, integrative movement during childhood has a direct impact on our ability to easily learn because these activities enhance the development and organization of the brain. Neuroscience has now documented the strong connection between physical movement and learning (as in reading, math and logic). "Learning involves the building of skills, and skills of every manner are built through the movement of muscles – not just physical skills for athletes...but also the intellectual skills used in classrooms and workplaces," states Dr. Carla Hannaford, noted neurobiologist.

New studies in education have documented that the best predictor for success in reading and math from kindergarten through 3rd and

4th grade was actually eye-hand coordination and motor skills. Coordination and motor skills are superior activities for enhancing learning and establishing success in school. Debra Wilson, reading specialist and creator of *S'cool Moves for Learning*, has stated that gymnastics is the very best form of integrative movement. Studies have also documented new neural networks (i.e., flow of information in the

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brain) in the brains of children involved in preschool gymnastics. "Neurologists are finding evidence that the cerebellum, which coordinates physical movement, also coordinates the movement of thought," states John J. Ratey, MD in *Users Guide to the Brain*.

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Where can you find these integrative movements that can have such a tremendous impact on our children? Easy, visit www.gymmagic.com for program information.