

Montessori, neuroscience, and parenting

Dr. Montessori was keenly interested in the study of the brain. She actually began her professional career studying the brain at the Orthophrenic School in Rome. Her book *The Pedagogical Anthropology* was exclusively about her studies of the human brain where she wrote prolifically about her theories on the nature of child development, and in particular, the nature of a child's developing mind. It was through this work that she came to understand the child in a revolutionary new way.

If she were alive today, I believe she would be working side by side with neuroscientists or have become one herself, so she could further study the inner workings of how we humans learn. Amazingly, without all the technological equipment at her disposal, what she discovered about the child is now confirmed by the neuroscientists! So much so that some neuroscientists say that the Montessori environment is the ideal learning environment.

One of their findings is that the brain has devoted so much space for the mastery of working with our hands that if our bodies were proportioned accordingly we would stand about one foot high with hands five to six feet tall at our sides. The brilliance of hands-on-learning in Montessori classrooms is exactly what the brain needs to grow to its fullest potential.

Those of us who work in Montessori classrooms have heard a child say, "Do I still need to use the materials or can I just do it in my head?". We smile and say, "Go ahead and do it in your head," knowing that the moment of abstraction has arrived. It truly is a moment of celebration to be a witness to what the environment has provided for a child's deeper understanding of the world.

Montessori knew that the mastery of the hands and abstraction occurs at different rates for different people. The speed at which one learns is not the focus, but it is the quality of understanding. To understand something is much different than to just have knowledge. Students who have dropped out of high school, not interested in learning, begin to experience understanding again when given hands-on-learning and getting A's and B's. They too eventually went on to experience abstraction on their own timetable.

I once asked an administrator why this isn't done on a large-scale basis and she said, "Oh that would be way too expensive."

What is really more expensive when we have over 50 percent of students not graduating from high school? Consider what the numbers reveal over one of these student's lifetime in terms of their earning potential, ability to lead more satisfying and stable lives, and the contributions they could make through their work to their communities.

Parents start your children early and keep them enrolled as long as you can in a Montessori environment to gain every advantage of strong brain development.

Businesses of today need students who deeply understand concepts and can work with them in new and innovative ways. Gone are the days when one who didn't do well in school could go work in a factory. The factory has changed!

Floor managers, who understood the process of production, are no longer there because no one person can know everything there is to know in our increasingly complex, globalized world. Teams of experts are needed in order to think together and contribute ideas, sorting through the avalanche of information available, and working with the advanced machines that produce goods.

Montessori students spend year after year self-selecting teams and working together. It becomes a natural way of life and they become very good at it. Because they are free to choose who to work with, they learn to genuinely like each other and negotiate their tasks.

Each day when a child comes to a Montessori school, she is planning her day, choosing activities that she knows are next in maintaining her interest and quenching her thirst for knowing a particular aspect of the world. College professors delight in having Montessori students because they are excellent self-starters and are project-oriented.

One of the best things parents can do at home is to focus on the mastery of the hands. Become aware of everything you do with your hands and ask yourself, "How can I involve my child with this task or provide a similar, simpler version?"

Doing this exercise allows the whole world to open up. Children are now cooking, gardening, washing the car, mowing the yard, composting, setting the table, clipping the hedge, threading a needle, word-processing, playing an instrument, writing a list, grocery shopping, folding the laundry and fixing a loose hinge. The list becomes vast.

Often times as parents we make the mistake of assigning chores to children, which immediately takes the joy of mastery away. Instead, when we invite a child to see what it is we are doing and do it slow enough that he can follow, he will become watchful. It is not uncommon to hear a child say, "Can I do it?"

"Yes," says the parent joyfully.

Children delight in learning new things. At the age of nine, my mother said to me, "Would you like to see if you can iron the handkerchiefs all by yourself? I think you are ready."

"Wow, she thinks I'm ready to do something all by myself," I thought.

This is the mantra of the child, "Help me to do it myself." This is what Dr. Montessori discovered, that children want to master their hands.

Once a task is learned and ready to be added to the family chores, it is important to check with the child and see if she would like to do it herself or do it together as a team. Either way, it prepares the child for further practice and mastery or teamwork in an interconnected world.

My husband and his mother chose to do dishes together after every meal when we went to visit her. I watched them standing together, restoring order to the kitchen and enjoying each other's company. When she passed on and it was our turn to host the family gatherings, I knew it was my turn to be by his side. Even though a chore was getting done, it was more about having time together—hand and hearts working together. It is the same with children—hands and hearts working together.

One of the recent acquisitions in our Peace Education Bookstore is called *Waking Up: A Parent's Guide to Mindful Awareness and Connection*, by Raelynn Maloney, Ph.D. One of the greatest things we can do is to be grounded in the present and raise a child who is grounded in the present. When we are aware, and look around our homes there are countless opportunities to be working with our hands and hearts, guiding children to the place of "I did it myself."

This year, my granddaughter announced that she was ready to cook the entire holiday meal. It represented years of cutting, chopping, peeling, grating, whipping, slicing and countless other tasks in the kitchen— each one enjoyed and mastered.

Dr. Montessori believed that the child who grows and sees him/herself as a productive member of a positive society would grow into an adult who would desire a world that allows for similar experiences. This is the hope for the future. This is the basis for a world society of peace and the furthering of humanity.