

# Montessori Teaching Method Tested On Normal Children

by David Vachon

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## Introduction by Dr. James J. Asher

I was fascinated that Dr. Maria Montessori was the first woman in Italy to earn a medical degree. She graduated from the University of Rome's School of Medicine in 1896 at the age of twenty-six.

Her first job was working at the university's medical clinic treating intellectually handicapped children who were billeted in an insane asylum. She discovered that no medical procedure at that time was effective in helping these children.

By trial-and-error, she stumbled upon something that worked: I call it a "brainswitch" from the children's left to their right brain with tactile activities such as touching and grasping objects. The children used their fingers to (a) fit wooden shapes into cutout spaces, (b) use button boards for practice in buttoning and unbuttoning, and (c) manipulate laces by tying and untying. Children also sorted objects of different sizes and textures.

### Normal children in public school could also benefit

Next, it occurred to her that normal children in public schools could also benefit from tactile activities. Here is her complete story that dramatically illustrates the power of brainswitching from the left to the right brain. There is still another interesting explanation for the impact of motor activity on learning. Research using brain scans by Dr. Melvyn A. Goodale and his colleagues suggests that motor behavior including tactile was thousands of years ahead of visual perception in evolutionary development. Tactile stimulation may be tapping into a primitive sensory system that is a powerful force in human behavior. (For more on this theory, see my review of the Goodale research by going to [www.tpr-world](http://www.tpr-world) and then click on TPR Articles.)

This is a fun read for parents and teachers. For other exciting articles about science, history, technology, and invention, I am pleased to recommend that you and your students will enjoy every issue of *Old News*. Ask your school librarian to order a subscription. (See ordering details at the end of this article.)

Maria Montessori was the first woman to earn a medical degree in Italy: she graduated from the University of Rome's school of medicine in 1896 at the age of twenty-six. While working at the university's psychiatric clinic, she began treating intellectually handicapped children who were being held in an insane asylum. She was familiar with the various "cures for idiocy" that were prescribed in the medical literature of the day, but she found that no medical treatment had any effect. The children improved only when she used the purely educational treatments advocated by Edouard Seguin, a French physician who had established schools for the intellectually handicapped in France and the United States. In his 1866 book, *Idiocy and Its Treatment*, Seguin had stressed the importance of developing self-reliance and independence in the intellectually disabled by giving them a regimen of physical and intellectual tasks.



Maria Montessori circa 1905.

Montessori developed a teaching system that combined the ideas of Seguin and others with her own insights. She found that by emphasizing physical and tactile skills, she could capture the children's interest. She gave them wooden cutouts of different shapes that could be felt with the fingers and set into corresponding cutout spaces; button boards to practice buttoning and unbuttoning; laces to be tied and untied; and objects of different sizes and textures to be sorted.

As the first accredited female physician in Italy, Montessori had become a celebrity. She decided to use her fame to promote schools for the intellectually handicapped. By 1890 she had raised enough money to set up a teacher-training school in Rome. As director, Montessori supervised student teachers in three classrooms.

Children moved about the classroom from one activity to another or stayed in one place working with one set of materials until they had mastered them. Because the children were doing interesting things, discipline ceased to be a problem, and they began acquiring useful skills.

Montessori continually modified the materials as she discovered which ones were most effective. When an eleven-year-old girl could not learn to sew no matter how many times she was shown, Montessori taught the girl to weave strips of paper together to form a mat.



*Children in a Montessori school in Tarrytown, New York, work with learning materials that Maria Montessori developed.*

Once the girl had learned to weave, Montessori led her back to her sewing. Montessori wrote: "[I] saw with pleasure that she was now able to follow the darning. From that time on, our sewing classes began with a regular course in weaving."

Montessori realized that she could apply this same principle of tactile learning to writing. Rather than starting off by showing children how to write cursive letters, she gave them a set of letters made out of wood. The children touched and traced the shapes of letters with their fingers before trying to reproduce those same shapes in writing.



*Montessori thought that children should be taught practical skills. This picture shows "washing day" at a Montessori school in Berlin.*

All the students at the school had been classified as deficient and uneducable, but visitors from the ministry of education were delighted with the progress the students made. Some even learned to read and write, and they passed the same exams as students in the regular system.

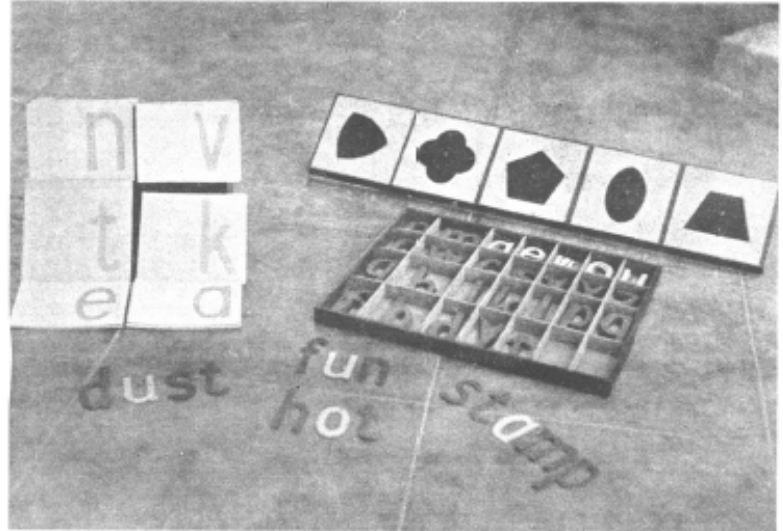
Because her teaching methods blurred the distinction between playing and learning, Montessori began to think that they might work equally well on children of normal intelligence. After two years at the school for intellectually handicapped children, she resigned as director and returned to the University of Rome to study education. During this period she visited elementary schools where she found that children were "like butterflies mounted on pins...fastened each to his place, the desk, spreading the useless wings of barren and meaningless knowledge which they have acquired."

Montessori disapproved of the enforced silence and immobility, the use of rewards and punishment, and the strict discipline in public schools. As a doctor, she was also appalled at the poor sanitary conditions.

She was eager to try out her teaching methods on children of normal intelligence, and in 1906 she got the chance. She was approached by Edouardo Talamo, director of a housing project for working-class families in the San Lorenzo area of Rome. Talamo's tenants were mostly working couples with children. The preschoolers, who ranged from three to six years old, were scribbling on walls in corridors and causing mischief, while their parents were at work and their older siblings were at school. Talamo asked Montessori if she would start classes for these children right in the tenement buildings.

There were between fifty and sixty preschoolers in the tenement that Montessori selected as her pilot project. If the first project worked, Talamo had sixteen other buildings in San Lorenzo to which the project could be extended.

Montessori enlisted the financial support of wealthy ladies who donated toys, teaching materials, and money. She hired a forty-year-old woman who had not been trained as a teacher to lead the class under her own guidance and direction. The so-called Casa dei Bambini, or "Children's House," opened on January 6, 1907.



*Learning materials designed by Maria Montessori.*

At first Montessori instructed the teacher to provide the children with toys and educational materials but not to teach them anything. Montessori wanted to see what they would do on their own. Montessori and the teacher found that the children soon tired of the less challenging toys such as the balls, dolls, and wagons, but they showed sustained interest in the educational materials. Unlike the intellectually handicapped children, these students began immediately putting the wooden circles, squares, and triangular shapes into the correct spaces in a wooden tray and repeating the activities with great concentration.

Montessori intended to allow the children to work independently but responsibly. She replaced the classroom's tables, chairs, and cabinets with child-sized furniture, including small washstands where children could use soap, water, and towels. Materials were housed in cabinets low enough for each child to access, allowing them to take out materials and put them back when they were finished. As a result, the students largely taught themselves, while the teacher watched them and provided them with materials appropriate to their stage of development. Activities such as growing plants, caring for pets, preparing and serving meals, and gymnastics all played a part in their day.

When critics objected that there was a lack of discipline, Montessori responded: "A room in which all the children move about usefully, intelligently, and voluntarily, without committing any rough or rude act, would seem to me a classroom very well disciplined indeed."



*This child is concentrating on building a tower. Montessori believed that it was important for children to teach themselves how to manipulate objects.*

Montessori instructed the teacher to pay close attention to each student's behavior, not allowing any of the children to push their companions or put their feet on the desk. Children who continually misbehaved were expelled, but they were few in number. Montessori conferred regularly with parents about the progress of their children.

Three months after the first school opened, Montessori opened a class in a second tenement. Educators, journalists, and royalty all visited the schools. When Italy's Queen Margherita visited the school, the children greeted her politely and then quickly got back to their activities.



*Dr. Montessori at age eighty with a young student at the Gatehouse School, St. Bartholomew the Great, London, in 1951.*

During the first semester, Montessori did not teach reading or writing, but she thought her students were capable of it. She decided to begin teaching these skills in the fall term. She knew that first-graders in the public schools would be starting to learn to read and write at the same time, thus allowing her to compare her results with those in the public system.

She had additional sets of cardboard and wooden letters made up, and she allowed the children to manipulate those letters as she had done with handicapped children. By Christmas of 1907, when the six-year-old first graders in the public system were still practicing penmanship to prepare them to learn to write, the Montessori four-year-olds were writing. Montessori's success brought favorable newspaper articles, and soon the Italian public became interested in her system.

In 1908 three more schools were opened, each providing further evidence that Montessori's methods worked. Montessori was a charismatic speaker who inspired people to follow her. She began training new teachers. In 1909 she wrote her first book, *The Montessori Method*, to explain the origins and applications of her educational theories. She concluded: "Our children are noticeably different from those others who have grown up within the gray walls of the common schools. Our little pupils have the serene and happy aspect and the frank and open friendliness of the person who feels himself to be master of his own actions."

*The Montessori Method* sparked international interest; within months it was being widely read, and translations were published in other countries. Educators from England, France, Canada, the United States, and elsewhere visited Italy to learn about Montessori's methods. In 1912 Mabel Hubbard Bell, wife of Alexander Graham Bell, and Margaret Wilson, daughter of President Woodrow Wilson, formed the American Montessori Association. By the following year, there were nearly one hundred Montessori schools in the United States.

Today there are Montessori societies throughout the world and thousands of Montessori schools. Many currently accepted ideas in education stemmed from Montessori's work, including the importance of early learning, appropriate educational materials, small-scale furniture, the open classroom, strong parent participation, and a stimulating learning environment. Maria Montessori continued to spread her philosophy of education worldwide until her death in Holland in 1952, at the age of eighty-one.

#### SOURCES:

Kramer, Rita. *Maria Montessori: A Biography*. New York: G.P. Putnam's Sons, 1976.

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