

CONSTRUCTIVISM & STUDENT CENTERED LEARNING

7. MARIA MONTESSORI

7.1. The Early Years

Just who was this woman who began an educational revolution that changed the way we think about children more than anyone before or since? Dr. Maria Tecla Artemesia Montessori was an Italian physician and educator best known for the philosophy of education that bears her name, and her writing on scientific pedagogy. Her educational method is in use today in some public and private schools throughout the world. Maria Montessori, born in 1870, was the first woman in Italy to receive a medical degree. She worked in the fields of psychiatry, education and anthropology. She believed that each child is born with a unique potential to be revealed, rather than as a blank slate waiting to be written upon. Her main contributions to the work of those of us raising and educating children are in these areas:

- **Preparing the most natural and life-supporting environments for the child**
- **Observing the child living freely in this environment**
- **Continually adapting the environment in order that the child may fulfill his or her greatest potential, physically, mentally, emotionally, and spiritually.**

Maria Montessori was always a little ahead of her time. At age thirteen, against the wishes of her father but with the support of her mother, she began to attend a boys' technical school. After seven years of engineering she began premed and in 1896 became a physician. In her work, at the University of Rome, psychiatric clinic Dr. Montessori developed an interest in the treatment of special needs children and, for several years, she worked, wrote, and spoke on their behalf. In 1907, she was given the opportunity to study "normal" children, taking charge of fifty poor children of the dirty, desolate streets of the San Lorenzo slum on the outskirts of Rome. The news of the unprecedented success of her work in this Casa dei Bambini (House of Children) soon spread around the world, people coming from far and wide to see the children for themselves. Dr. Montessori was as astonished as anyone at the realized potential of these children.

In this first classroom, Montessori observed behaviors in these young children which formed the foundation of her educational method. She noted episodes of deep attention and concentration, multiple repetitions of activity, and a sensitivity to order in the environment. Given free choice of activity, the children showed more interest in practical activities and Montessori's materials than in toys provided for them, and were surprisingly unmotivated by sweets and other rewards. Over time, she saw a spontaneous self-discipline emerge. Based on her observations, Montessori implemented a number of practices that became hallmarks of her educational philosophy and method. She replaced the heavy furniture with child-sized tables and chairs light enough for the children to move, and placed child-sized materials on low, accessible shelves. She expanded the range of practical activities such as sweeping and personal care to include a wide variety of exercises for care of the environment and the self, including flower arranging, hand washing, gymnastics, care of pets, and cooking. She also included large open air sections in the classroom encouraging children to come and go as they please in the room's different areas and lessons. In her book, she outlines a typical winter's day of lessons, starting at 9:00 AM and finishing at 4:00 PM:

- **9:00–10:00 Entrance.** Greeting. Inspection as to personal cleanliness. Exercises of practical life; helping one another to take off and put on the aprons. Going over the room to see that everything is dusted and in order. Language: Conversation period: Children give an account of the events of the day before. Religious exercises.
- **10:00–11:00 Intellectual exercises.** Objective lessons interrupted by short rest periods. Nomenclature, Sense exercises.
- **11:00–11:30 Simple gymnastics.** Ordinary movements done gracefully, normal position of the body, walking, marching in line, salutations, movements for attention, placing of objects gracefully.
- **11:30–12:00 Luncheon.** Short prayer.
- **12:00–1:00 Free games.**
- **1:00–2:00 Directed games.** If possible, in the open air. During this period the older children in turn go through with the exercises of practical life, cleaning the room, dusting, putting the material in order. General inspection for cleanliness: Conversation.
- **2:00–3:00 Manual work.** Clay modelling, design, etc.

- **3:00–4:00 Collective gymnastics and songs.** If possible in the open air. Exercises to develop forethought: Visiting, and caring for, the plants and animals.

She felt by working independently children could reach new levels of autonomy and become self-motivated to reach new levels of understanding. Montessori also came to believe that acknowledging all children as individuals and treating them as such would yield better learning and fulfilled potential in each particular child. She continued to adapt and refine the materials she had developed earlier, altering or removing exercises which were chosen less frequently by the children. Also based on her observations, Montessori experimented with allowing children free choice of the materials, uninterrupted work, and freedom of movement and activity within the limits set by the environment. She began to see independence as the aim of education, and the role of the teacher as an observer and director of children's innate psychological development.

7.2. Italy, India and the United States

The first *Casa dei Bambini* was a success, and a second was opened on April 7, 1907. The children in her programs continued to exhibit concentration, attention, and spontaneous self-discipline, and the classrooms began to attract the attention of prominent educators, journalists, and public figures. In the fall of 1907, she began to experiment with teaching materials for writing and reading and letters cut from sandpaper and mounted on boards, moveable cutout letters, and picture cards with labels. Four and five year-old children engaged spontaneously with the materials and quickly gained a proficiency in writing and reading far beyond what was expected for their age. This attracted further public attention to Montessori's work. Three more Case dei Bambini's opened in 1908, and in 1909 Italy and Switzerland began to replace their educational methods with Montessori in orphanages and kindergartens. In 1909, Montessori held the first teacher training course in her new method in Città di Castello, Italy. In the same year, she described her observations and methods in a book titled *The Method of Scientific Pedagogy Applied to the Education of Children in the Children's Houses*. Two more training courses were held in Rome in 1910, and a third in Milan in 1911. Montessori's reputation and work began to spread internationally as well, and around that time she gave up her medical practice to devote more time to her educational work, developing her methods and training teachers. In 1919, she resigned from her

position at the University of Rome, as her educational work was increasingly absorbing all her time and interest.

Invited to the United States by Alexander Graham Bell, Thomas Edison, and others, Dr. Montessori spoke at Carnegie Hall in 1915. She was invited to set up a classroom at the Panama-Pacific Exposition in San Francisco, where spectators watched twenty-one children, all new to this Montessori method, behind a glass wall for four months. The only two gold medals awarded for education went to this class, and the education of young children was altered forever. During World War II, Dr. Montessori was forced into exile from Italy because of her antifascist views and lived and worked in India. It was here that she developed her work, Education for Peace, and developed many of the ideas taught in her training courses today. She was twice nominated for the Nobel Peace Prize.

7.3. Initial Montessori Programs

In Rome, Dr. Montessori developed the Montessori program for the elementary years for the child from 6-12 years old. She began, as elementary classes do today, with the required curriculum of Italy of her time. She adapted the traditional teacher taught subjects in the arts and sciences so that the children could use materials to guide their open-ended research and to follow their individual interests, working to a much higher level than was previously and is presently thought possible for children of this age. The elementary child, when allowed to work independently instead of being taught in groups led by a teacher, and in classes with a mixed age group of 6-12 year old students inspiring and teaching each other, masters academic subjects usually not taught until middle or high school.

The Montessori program for the young adult from age twelve to fifteen is very different from that of traditional schooling. Dr. Montessori felt that because of the rapid growth, the increased need for sleep, and hormonal changes, it is useless to try to force the adolescent to concentrate on intellectual work. She recommended an Erdkinder, or Earth school, where children would live close to nature, eat fresh farm products, and carry on practical work related to the economics of supplying food, shelter, transportation, and so forth. Intellectual work is still done, following the child's interests, but without pressure.

7.4. The Montessori Method

Dr. Montessori had many accomplishments with one being the Montessori Method which is a method of educating young children that stresses development of a child's own initiative and natural abilities, especially through practical play. This method allowed children to develop at their own pace and provided educators with a better understanding of child development. In Maria's book, *The Montessori Method*, she goes into further detail about the method. Educators in the field set up special environments to meet the needs of the students in three age groups: two and a half years, two and a half to six years, and six and a half to twelve years. The students learn through activities that involve exploration, manipulations, order, repetition, abstraction, and communication. The teacher is to encourage children in the first two age groups to use their senses to explore and manipulate materials in their immediate environment. Children in the last age group deal with abstract concepts based on their newly developed powers of reasoning, imagination, and creativity.

Although Montessori and her educational approach were highly popular in the United States, she was not without opposition and controversy. Influential progressive educator William Heard Kilpatrick, a follower of American philosopher and educational reformer John Dewey, wrote a dismissive and critical book titled *The Montessori Method Examined*, which had a broad impact. The National Kindergarten Association was critical as well. Critics charged that Montessori's method was outdated, overly rigid, overly reliant on sense training, and left too little scope for imagination, social interaction, and play. In addition, Montessori's insistence on tight control over the elaboration of her method, the training of teachers, the production and use of materials, and the establishment of schools became a source of conflict and controversy. After she left in 1915, the Montessori movement in the United States fragmented, and Montessori education was a negligible factor in education in the United States until 1952.

Montessori considered her work in the Orthophrenic School and her subsequent psychological studies and research work in elementary schools as scientific pedagogy, a concept current in the study of education at the time. She called for not just observation and measurement of students, but for the development of new methods which would transform them. Scientific education, therefore, was that which, while based on science, modified and improved the individual. Further, education itself should be transformed by science.

7.5. Further Development and Montessori Education Today

Montessori continued to develop her pedagogy and her model of human development as she expanded her work and extended it to older children. She saw human behavior as guided by universal, innate characteristics in human psychology which her son and collaborator Mario Montessori identified as human tendencies in 1957. In addition, she observed four distinct periods, called planes, in human development, extending from birth to six years, from six to twelve, from twelve to eighteen, and from eighteen to twenty-four. She saw different characteristics, learning modes, and developmental imperatives active in each of these planes, and called for educational approaches specific to each period. Over the course of her lifetime, Montessori developed pedagogical methods and materials for the first two planes, from birth to age twelve, and wrote and lectured about the third and fourth planes. Maria created over 4,000 Montessori classrooms across the world and her books were translated in many different languages for the training of new educators. Her methods are installed in hundreds of public and private schools across the United States.

Since her death, an interest in Dr. Montessori's methods have continued to spread throughout the world. Her message to those who emulated her was always to turn one's attention to the child, to follow the child. It is because of this basic tenet, and the observation guidelines left by her, that Dr. Montessori's ideas will never become obsolete. Many people, hearing of the high academic level reached by students in this system of education, miss the point and think that Montessori math manipulative as an example is all there is to the Montessori method. It is easy to acquire materials and to take short courses to learn to use them, but the real value of Montessori takes long and thorough training for the adult. The potential of the child is not just mental, but is revealed only when the complete Montessori method is understood and followed. The child's choice, practical work, care of others and the environment, and above all the high levels of concentration reached when work is respected and not interrupted, reveal a human being that is superior not only academically, but emotionally and spiritually, a child who cares deeply about other people and the world, and who works to discover a unique and individual way to contribute. This is the essence of real Montessori work today.