

The Montessori method

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Scientific observation has established that education is not what the teacher gives; education is a natural process spontaneously carried out by the human individual, and is acquired not by listening to words but by experiences upon the environment. The task of the teacher becomes that of preparing a series of motives of cultural activity, spread over a specially prepared environment, and then refraining from obtrusive interference. Human teachers can only help the great work that is being done, as servants help the master. Doing so, they will be witnesses to the unfolding of the human soul and to the rising of a New Man who will not be a victim of events, but will have the clarity of vision to direct and shape the future of human society.

– Maria Montessori,
Education for a New World

I AM the daughter of a Montessori directress and was a Montessori child myself, before I decided to train as a Montessorian after the birth of my first child. My first memories of pre-school was Shatruijit Montessori School (apt in the war years of the 1960s), a pre-school my mother started for the army kids while my father was fighting in the eastern sector. Sitting on the floor with *chowkies*, made out of crates (that had once carried ammunition), I remember learning with children of *jawans* and officers of all ranks, celebrating festivities of all religions, my favourite playmate Ritu who was blind teaching me the names of the continents since she was better at using her tactile sense than I was!

My training to be a Montessori teacher in London removed all previous myths surrounding my notions of what a teacher must be like. The first thing I learnt was that my success would be measured on the basis of how *little* the children needed me – a far cry from my own notions at that point! After 18 years of teaching, I still continue to refer to Maria Montessori's writings and lectures in order to remind myself on how to learn from and serve the child.

Today many schools have mushroomed in India, a large number of them professing to be Montessori schools. Some of them truly reflect and follow the principles that are held sacred by all those following this pedagogy. Since the beginning Montessori pedagogy has been appropriated, interpreted, misinterpreted, exploited, propagated, torn to shreds and the shreds magnified into systems, reconstituted, used, abused and disabused, gone into oblivion and undergone multiple renaissances.

There are various reasons why this should be so. Perhaps the most important is that although Montessori pedagogy is known as the Montessori Method, it is not a method of education, in other words, it is not a programme for teachers to apply. Maria Montessori was not a teacher – the Alpha and Omega of her pedagogy lies

with the children. This article is an attempt to put forward some of the underlying principles that Maria Montessori established as guidelines for all those involved in education of children.

Maria Montessori was a scientist, and as a good scientist, was earth-bound and highly spiritual in her pursuit of truth. She studied medicine, specializing in psychiatry and anthropology. She was also an outstanding mathematician. Although she would never have considered being a teacher, she studied educational methods for many years and found them wanting, possibly because none of them took into account the two seemingly paradoxical extremes which are at the centre of her pedagogy: the universal characteristics of the human child, and the child as a unique, unrepeatable, respectable and admirable individual to be unconditionally accepted as one of life's most marvellous expressions.

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 involved in educating children are in these areas:

- * Preparing the most natural and life supporting environment for the child.
- * Observing the child living freely in this environment.
- * Continually adapting the environment in order that the child may fulfil his greatest potential – physical, mental, emotional, and spiritual.

Maria Montessori was always a little ahead of her time. At age 13, 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 earned her diploma in medicine and surgery in 1896 to become the first female doctor in Italy. Her initial work as a doctor was in the research field of psychiatry, and she spent much time visiting children's asylums. In Rome during this time, children who were considered 'mentally deficient' or 'feeble-minded' were locked up in asylums.

One of Montessori's early observations of these asylum children formed a crucial element of her theory that would later influence many people. She watched children who would crawl on the floor to grab crumbs of bread after mealtime and realized that 'the children were starved not for food but for experience' (Kramer, 1976:58). These acts of moving around the room, chasing other children and fighting for the crumbs were the only way of relieving their boredom, because for the rest of the day they were locked up in a bare room. Montessori believed that each child, even those classified as 'feeble-minded', was capable of learning to function in society, but each had his or her own way of discovery. In other words, she recognized that not all

children developed through phases of life in the same way.

Montessori was much influenced by earlier works on child development and psychology, in particular research conducted by Jean-Marc-Gaspard Itard and Eduardo Seguin. Both worked with children who had some physical or mental disability. Whether they had true congenital defects, or whether they were classified as ‘retarded’ since they did not fit the pattern of development as displayed by the majority of children, is unknown. However, both attempted to teach basic skills such as reading and writing, using methods different from those being employed in the formal school settings. These experiments were a source of inspiration for Montessori who believed that ‘mental deficiency presented chiefly a pedagogical, rather than mainly a medical, problem’ (Montessori, 1964: 31). She laid in my opinion the foundation of what is considered today as the cornerstone of the movement towards inclusion of children with special needs.

In 1907 she was given the opportunity to study able-bodied children, taking charge of 50 poor children of the dirty, desolate streets of the San Lorenzo slum on the outskirts of Rome. The children entered her programme as ‘wild and unruly’. Based on countless hours of observing the children in asylums, Montessori gradually formed her philosophy on how children learn best. ‘I have studied the child. I have taken what the child has given me and expressed it and that is what is called the Montessori method.’

Much to her surprise the children began to respond to her teaching methods. She always held them in the highest regard and taught her teachers to do likewise. From the beginning amazing things happened. Children younger than three and four years old began to read, write, and initiate self-respect. The Montessori method encouraged what Maria saw as the children’s innate ability to ‘absorb’ culture. ‘And then we saw them "absorb" far more than reading and writing... it was botany, zoology, mathematics, geography, and all with the same ease, spontaneously, and with out getting tired’ (*The Absorbent Mind*).

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: ‘Supposing I said there was a planet without schools or teachers, study was unknown, and yet the inhabitants – doing nothing but living and walking about – came to know all things, to carry in their minds the whole of learning: would you not think I was romancing? Well, just this, which seems so fanciful as to be nothing but the invention of a fertile imagination, is a reality. It is the child’s way of learning. This is the path he follows. He learns everything without knowing he is learning it, and in doing so passes little from the unconscious to the conscious, treading always in the paths of joy and love’ (Maria Montessori, *Education for a New World*).

The Montessori approach offers a broad vision of education as an aid to life. It is designed to help children with their task of inner construction as they grow from childhood to maturity. It succeeds because it draws its principles from the natural development of the child. Its flexibility provides a matrix within which each individual child's inner directives freely guide the child toward wholesome growth. Montessori classrooms provide a prepared environment where children are free to respond to their natural tendency to work. The children's innate passion for learning is encouraged by giving them opportunities to engage in spontaneous, purposeful activities with the guidance of a trained adult.

Through their work the children develop concentration and joyful self-discipline. Within a framework of order, the children progress at their own pace and rhythm, according to their individual capabilities. There are prepared environments for children at each successive developmental plane. These environments allow them to take responsibility for their own education, giving them the opportunity to become human beings able to function independently and hence interdependently.

Montessori classrooms are designed for a three-year age mix (three to six, six to 12, 12 to 15), which allows for both individual and social development. 'Beyond the more obvious reasons why it is sensible to group the ages three by three, such as the little ones learn from the older children and the older ones learn by teaching the younger, every child can work at his own pace and rhythm, eliminating the bane of competition, there is the matter of order and discipline easily maintained even in very large classes with only one adult in charge. This is due to the sophisticated balance between liberty and discipline prevalent in Montessori classrooms, established at the very inception of a class. Children who have acquired the fine art of working freely in a structured environment, joyfully assume responsibility for upholding this structure, contributing to the cohesion of their social unit.'

Children of ages *three to six* possess what Dr. Montessori called the Absorbent Mind. This type of mind has the unique and transitory ability to absorb all aspects physical, mental, spiritual of the environment, without effort or fatigue. As an aid to the child's self-construction, individual work is encouraged. The following areas of activity cultivate the children's ability to express themselves and think with clarity.

Practical life exercises instil care for themselves, for others, and for the environment. These 'exercises in daily living' include many of the tasks children see as part of the daily life in their home – washing and ironing, doing the dishes, arranging flowers, sweeping, polishing, dusting and so on. Elements of human conviviality are introduced with the exercises of grace and courtesy. Through these and other activities, children develop muscular coordination, enabling movement and the exploration of their surroundings.

They learn to work at a task from beginning to end, and develop their will

(defined by Dr. Montessori as the intelligent direction of movement), self-discipline and capacity for total concentration. She even proposed a schedule for organizing the day's events, including meal times and menus. Not only did such activities form good habits, they were also important for the development of self-discipline, responsibility, patience, and work orientation (Miezitis, 1971:125).

Sensorial materials are tools for development. Children build cognitive efficacy, and learn to order and classify impressions. They do this by touching, seeing, smelling, tasting, listening, and exploring the physical properties of their environment through the mediation of specially designed materials. As part of the programmes she developed for disabled children, Montessori focused on 'first the education of the sense, then the education of the intellect' (Kramer, 1976:76). Montessori was also aware of the need to stimulate all the senses by going out for walks to smell flowers, look at plants, hear the birds, and do physical exercises.

Her profession as a doctor no doubt influenced her decisions to concentrate on personal hygiene, nutrition and eating habits. 'Education of the sense' also included learning how to appreciate silence. Montessori introduced the 'game of silence' where all the children and the teacher would remain as quiet as possible to listen for 'the lightest sounds like that of a drop of water falling in the distance and the far-off chirp of a bird' (Montessori, 1936 quoted in Kramer, 1976:115). This activity eventually became part of the daily routines in Montessori schools. Montessori herself saw it as 'a most efficacious preparation for the task of setting in order the whole personality, the motor forces and the psychical' (ibid).

Language is vital to human existence. The Montessori environment provides rich and precise language. Books are an integral part of the environment and a carefully prepared environment provides opportunities for storytelling, phonemic discrimination, reading and writing.

Cultural extensions – geography, history, biology, botany, zoology, art and music are presented as extensions of the sensorial and language activities. Children learn about other cultures, past and present, and this allows their innate respect and love for their environment to flourish, creating a sense of solidarity with the global human family and its habitat. Experiences with nature in conjunction with the materials in the environment inspire a reverence for all life. History is presented to the children through art and an intelligent music programme.

The mathematics materials help the child learn and understand mathematical concepts by working with concrete materials. This work provides the child with solid underpinnings for traditional mathematical principles, providing a structured scope for abstract reasoning.

Rather than encouragement from someone else, Montessori believed that children themselves would have the initiative and intrinsic motivation to learn more

complex things. After mastering simple tasks of ‘few stimuli strongly contrasting’, a child would move ahead to more complex tasks with ‘many stimuli in gradual differentiation always more fine and imperceptible’ (Montessori, 1964: 184). Montessori stressed that a child needed to have freedom in his life to explore different avenues of learning. It is important to note that freedom was not equated with anarchy. Instead, freedom implied the possibility of taking certain types of action within defined limits. For example, as mentioned above, one of these boundaries revolved around cleanliness.

Montessori believed in taking the time to learn from the children, as she herself learned through her observations of the children in the asylums. She and her assistant (who had no prior official training in early childhood education and development) did not impose any limitations to the children’s freedom and allowed them to explore this new space. As Montessori herself wrote, ‘I merely wanted to study the children’s reactions. I asked [my assistant] not to interfere with them in any way as otherwise I would not be able to observe them’ (Kramer, 1976:113). In over just a few weeks, Montessori noticed a great change in the behaviour of the children who had been left crying by their parents at the centre.

The children of Casa dei Bambini began to take interest in the didactic materials and they were no longer ‘the sullen, the disinterested and withdrawn, and the rebellious children’ (Kramer, 1976:113). It was uncommon to treat children with such a high level of respect. Back then society felt that children should be seen and not heard. ‘To deny them (the children) the right to learn because we, as adults think that they shouldn’t is illogical and typical of the way schools have been run,’ she said at one time.

Her methods completely contradicted the educational theories and practice popular during her day. On one occasion, ‘SI decided to give the children a slightly humorous lesson on how to blow their noses. After I had shown them different ways to use a handkerchief, I ended by indicating how it could be done as unobtrusively as possible. I took out my handkerchief in such a way that they could hardly see it and blew my nose as softly as I could. The children watched me in rapt attention, but failed to laugh. I wondered why, but I had hardly finished my demonstration when they broke out into applause that resembled a long repressed ovation in a theater. When I was on the point of leaving the school, the children began to shout, "Thank you, thank you for the lesson"!’

What surprised Montessori even more was the children’s lack of interest in the toys or the drawing materials and their keen interest in the didactic materials. Montessori concluded that ‘children soon tire of toys that have only one function, but they seek out, continue to work with and keep returning to materials that let them see their errors and correct them, that aid their understanding of the physical world and that develop their intellect’ (Spock and Hathaway, 1967). Montessori was critical of the system of schooling that forced a set curriculum as dictated by the teacher upon the

child. She believed that ‘the child was master of his house’ and that there was no one cookie-cutter method of teaching children (Kramer, 1976: foreword by Anna Freud).

Montessori’s concept of the school was as a place to develop ‘cognitive skills and a self-reliant character,’ and that everything else would be taken care of by other spaces, such as the home or the church (Kramer, 1976: 253). Her system of education therefore focused on learning different skills and practices that were useful in life. She strongly believed in the notion of learning by doing and thought it important for each child to explore and create his or her own world. To facilitate this process, she created a child-friendly environment.

Thus, the ‘liberty of the pupil’ was fundamental to the Montessori method. This liberty should ‘permit a development of individual, spontaneous manifestations of the child’s nature’ (Montessori, 1964:28). Supporting the liberty of the child was based on Montessori’s conviction that a child was striving for order in his or her life to match the ‘inherent order and structure in nature’ (Spock and Hathaway, 1967:75). As her biographer adequately phrased it, ‘To be in control of one’s self was for her the ultimate end of the process of education. It was what she had achieved in her own life and what she wanted to make possible for the children in her schools’ (Kramer, 1976:139). In this way, Montessori made an assumption that all children were looking for organized structure or order, and the best way to attain it was to let children reach it in their own way, at their own time.

Embedded in this notion of liberty was Montessori’s discovery that children were not motivated by rewards. Rather, their motivation and persistence at a task were driven by their desire to work at the task itself. For example, she watched what happened when medals were given as a reward for good work and was surprised to see that the ‘children accepted them politely but with little interest; they were more interested in being allowed to get on with the work’ (Kramer, 1976:120). Montessori believed that each child was driven by intrinsic motivation and thus should not be forced to do anything. Instead, her didactic materials would encourage the child to learn, where the learning process meant repeating tasks for as long as the child wished. Through this repetition, a task would eventually be considered completed and would enable the child to proceed to the next level. Montessori believed that the process of repetition was the most effective way of learning a task and of fully understanding its meaning. Repetition was necessary for mastery that took place in contextually meaningful ways.

Building upon these ideas, Montessori proposed to radically change the role of the traditional schoolteacher. The teacher would no longer command children forced to sit quietly in rows. Instead, she would be a facilitator, a directress who ‘teaches little and observes much’ (Montessori, 1964:173). Montessori’s success with ‘mentally deficient’ children stemmed from her belief that they were capable of learning, a belief which she only arrived at by taking time to observe and analyze them. Just as she tried to understand the world of the asylum children, she believed teachers

should try to understand their children through observation and analysis.

Then they would facilitate or guide the learning process instead of directing the classroom and dictating what had to be learned at what pace. This more passive role of teachers is consistent with Montessori's belief that 'a man is not what he is because of the teachers he has had, but because of what he has done' (Montessori, 1964:172).

The lessons Montessori incorporated into her pedagogy are those that we should incorporate at Montessori schools. A Montessori education not only presents children with the facts, but also examines issues from many viewpoints, allowing students to develop standards by which to live.

Inited to the USA by Alexander Graham Bell, Thomas Edison, and others, Montessori spoke at Carnegie Hall in 1915. It was during this year that Alexander Graham Bell and his wife, Mabel, founded the Montessori Educational Association in Washington D.C. She was invited to set up a classroom at the Panama-Pacific Exposition in San Francisco, where spectators watched 21 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. Other American supporters were Thomas Edison and Helen Keller.

In 1929, she founded the Association Montessori International in Amsterdam, Netherlands. In 1938, she opened the Montessori Training Center in Laren, Netherlands. In 1947, she founded the Montessori Center in London and in 1949, 1950, and 1951 she was nominated for the Nobel Peace Prize. In Switzerland, one of the most important 20th century theorists in child development, Jean Piaget (1896-1980), was heavily influenced by Montessori. Piaget was director of the modified Montessori school in Geneva, where he did some of the observations for his first book, *Language and Thought of the Child*, and served as head of the Swiss Montessori Society.

Montessori and Mahatma Gandhi met for the first time in London in 1931 when he said: 'It was in 1915 when I reached India that I first became acquainted with your activities. It was in a place called Amreli that I found that there was a little school being conducted after the Montessori system. Your name had preceded that first acquaintance. I found no difficulty in finding out at once that this school was not carrying out the spirit of your teaching; the letter was there, but whilst there was an honest – more or less honest – effort being made, I saw too that there was a great deal of tinsel about it. I came in touch, then, with more such schools, and the more I came in touch, the more I began to understand that the foundation was good and splendid, if the children could be taught through the laws of nature – nature, consistent with human dignity, not nature that governs the beast. I felt instinctively from the way in which the children were being taught that, whilst they were being indifferently taught, the original teaching was conceived in obedience to this

fundamental law.’

It was George Arundale and his wife who were instrumental in convincing Montessori to spend time in India. Arundale was President of the International Theosophical Society, which, under Annie Besant, had been influential in trying to revive traditional Indian cultures, educating the poor and the illiterate, and fighting for Home Rule. Rita Kramer (1976) makes the following links between Theosophy and the Montessori Method: ‘The core of Theosophy was the Indian doctrines of the union of the human soul with the divine consciousness, of reincarnation as a gradual unfolding of innate powers in successive lives, and of *karma*, the principle of self-realization leading to the liberation of the true self and to ultimate wisdom. There was some affinity between these beliefs and Montessori’s view of education as a process of liberating the spirit of the child, the increasingly vague and mystical language in which she spoke of her very practical classroom methods as she grew older. Many people who were drawn to Theosophy were attracted to the Montessori movement’ (p. 343).

In 1939, Montessori finally arrived in India and started the first official training centres for teachers in Madras, Kodaikanal, Ahmedabad, Bombay and Karachi (then still a part of India). As many of her students had read much about her theory and methods prior to her arrival, her work primarily involved implementing courses and schools rather than ‘selling’ her idea (Kramer, 1976). In the end, over 1000 teachers were trained.

During World War II, Montessori was forced into exile from Italy because of her anti-fascist views and lived and worked in India. Her concern with education for peace intensified and she was twice nominated for the Nobel Peace Prize. She spent this time observing and researching infants. She had always wanted to focus on this younger age group but never had the opportunity before. She found it highly exciting and advantageous to study infants in Indian families since they were at the centre of attention. It is the time she spent in India that established the Montessori pedagogy in the subcontinent.

Many years ago, when Maria Montessori established the Casa dei Bambini, she created not simply a classroom where children would receive a rudimentary education, but a place that evolved into a social and emotional environment where children would be respected and empowered as individual human beings. To this day a Montessori school is more than a classroom; it is a society in a microcosm where children acquire the skills and life lessons that are very much needed to become successful human beings. As the following sentence illustrates, she always kept in mind the glory and grandeur of human development: ‘Humanity shows itself in all its intellectual splendor during this tender age as the sun shows itself at the dawn, and the flower in the first unfolding of the petals; and we must respect religiously, reverently, these first indications of individuality.’

Montessori schools send a message to children that they belong, and that their school community is like a second family. Montessori schools create a bond between parents, directresses and children, just as Montessori sought to create a place where children learn to be part of families, care for younger children, learn from older people, trust one another and appreciate the diversity that exists within our community.

Prejudice does exist in the world. There are major religious, cultural and political differences in the world. In order for our children to grow up emotionally and morally complete, they must learn how to think and judge for themselves. At Montessori schools, the focus is on education of the whole child – social, personal, emotional, physical, creativity and intellectual. In preparing our children for the future we must show them how to learn, think and communicate effectively and work cooperatively with others. Demonstrating to the children how to understand and accept cultural and ability differences is one aspect of their moral preparation for the world. By teaching children how to understand and accept very real differences among individuals, we are one step closer to achieving peace in the world.

Montessori proposed that we could make peace on the planet by healing the wounds of the human heart and producing a secure child. The healing she hoped to instill in her students is the foundation of Montessori's movement; a movement she believed would lead to the reconstruction of society.

‘Children, especially in their first years, have an intimate sensitiveness as a spiritual necessity. We ourselves have lost this deep and vital sensitiveness, and in the presence of children in whom we see it reviving, feel as if we were watching a mystery being unfolded. It shows itself in the delicate act of free choice which a teacher untrained in observation can trample on before she discerns it, much as the elephant tramples the budding blossoms in its path. This is a moment in which the delicacy of the teacher's moral sensitiveness acquired during her training, comes into play’ (Maria Montessori, *The Absorbent Mind*, pp. 272-273).

Perhaps it is time we adults recognize that the child is the saviour of the world and learn from them, instead of attempting to teach them!

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