

THE IMPACT OF KEY PRINCIPLES OF THE MONTESSORI METHOD ON PRE-SCHOOL CHILDREN'S DEVELOPMENT

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ABSTRACT

The aim of this paper is to consider and examine the impact of key principles of the Montessori Method on pre-school children's development. The Montessori Method is one of the contemporary and alternative education methods that is globally practiced by Montessori educators. It is viewed as a child-centered method of schooling. Since Montessori education has existed for about 150 years, it is true that the social, cognitive, emotional and physical development of the children had already been well examined. There are key principles in each Montessori setting that enhance children's individual development. In a Montessori learning environment, children are shown respect by teachers and classmates and they have the greater opportunity to 'absorb' the environment. The sensitive periods are extremely significant for the appropriate development of children. The prepared environment is designed to facilitate independent learning and exploration by the child, which opens the door to children's self-education. Moreover, Montessori children have a freedom of choice and movement that indicates the way this method meets the needs of children. This paper explores the Montessori Philosophy, evaluates its effect on children's development and discusses its core principles in depth.

Keywords: Montessori Method, Montessori education, core principles of the Montessori Method, pre-school children, children's development.

1. INTRODUCTION

The Montessori Method is a different method of learning and educating. It was discovered and developed by the Italian physician, educator and innovator, Dr. Maria Montessori. She opened her first school in 1907 and she named it 'Casa dei Bambini' or Children's House. She is known all over the world, and many Montessori schools practice and spread her philosophy internationally. Maria Montessori travelled a lot, delivering lectures and educating people and teachers about her methodology, attracting many devotees. Nowadays, many active Montessori organizations, associations, schools and settings are involved in keeping up and raising the spirit of the Montessori Methodology.

Montessori education methods meet the needs of children. The teacher never rushes a child to master a concept, but rather guides the child towards individualized, self-paced mastering of concepts, no matter how long it takes. Montessori is a form of education where children are respected and they are stimulated and motivated to learn, explore and discover new creation by themselves. It is a holistic form of schooling, because avenues of growth in social, emotional, physical and spiritual sphere are all valued as part of academic success. Montessori Method is very relevant today exactly because it nurtures and cultivates the whole development of the child.

2. THE IMPORTANCE OF PRE-SCHOOL EDUCATION

The most important stage of development is the early childhood. It is a vital part of the education system in every country. It is not surprising, then, that early childhood education attracts attention of teachers, parents, educators and scholars. Pre-school education is an investment that brings greater productivity among the mature population and it helps in preventing anti-social behaviour. When attending pre-school, children

benefit the most: their learning environment is improved and their socialization process is fostered from first level of education. Moreover, attending pre-school is the first exercise that prepares children to separate from their parents and family, leaving their secure zone. In addition, during pre-school, the most significant benefits apply to the physical, social, emotional, cognitive and communicative development of the children. All of these advantages help children become aware of themselves and their place in the world, to understand the world better, understand themselves and others, express their emotions, build moral values, build social skills and communicate with others. When we see the bigger picture, we realise that all these advantages of pre-school education strongly affect the mental and physical health of children, bringing benefits to their literacy and numeracy skills and life success in general. Children enrolled in pre-school programmes are more prepared for the next stage in learning, which is primary education.

2.1 Benefits of Montessori Pre-school

Maria Montessori's educational theories apply to children and therefore they relate to a phase of development prior to that of formal school.

The Montessori setting is particularly designed for kids to learn and work without interruption. The three-hour period of work is fundamental to the success of the individual child. This period enables children to reach their deepest level of concentration and intellectual exploration. In this manner, children are strongly supported and their psychological well-being is enhanced.

The prepared environment offers a carefully planned atmosphere with interactive activities that teaches children specific skills. Every Montessori setting thus pays full attention to the so-called, sensitive periods of the child's development. When each sensitive period is recognized, children are able to learn different skills by participating in activities that assist them in getting to the next developmental milestone. Dr. Maria Montessori believed that as long as children are given the right opportunities to practice these skills and activities, their success and progress are guaranteed.

In a Montessori classroom, groups consist of mixed-age pupils. This allows them to collaborate and learn from each other, but also to help each other. Therefore, a very important message is delivered: everyone can learn something from anyone, no matter what their age. Children learn to respect others, develop problem-solving skills and build a sense of belonging. 'You cannot imagine how well a young child learns from an older child; how patient the older child is with the difficulties of the younger. It almost seems as if the younger child is material for the older child to work upon' (Montessori, 2008, p.68).

Another significant advantage of the Montessori pre-school method is that it is child-focused. The prepared classroom, gives an opportunity for the children to freely choose an appropriate activity according to their own development stage. The teacher guides and facilitates, making sure that the ground rules are followed. Teachers encourage children to work independently, so that they can acquire skills of self-discipline, self-esteem and independence.

The Montessori materials are noteworthy since they support children in self-correction and self-assessment. Each Montessori material has its own 'control of error', which enables children to correct themselves and learn from their mistakes. When this is the case, children's self-esteem and self-confidence are reinforced. In Montessori classrooms, children are encouraged to learn by touching, feeling and doing. Children take the activity they are interested in, place it on a table or mat, and then explore it, concluding and making discoveries by themselves. To hold up this idea, Dr. Montessori declares: 'The hands are the instruments of the man's intelligence.' (Montessori, 1949)

3. KEY PRINCIPLES OF THE MONTESSORI METHOD

Many outstanding characteristics of the Montessori system are practiced in the Montessori learning settings. The teacher's task in a Montessori classroom is to nourish and assist, to watch, encourage, induce, rather than to interfere, prescribe, or restrict. Montessori educationalists describe the Montessori teacher as a 'gentle guide' exactly for the reason that their job is not to give a child information, but rather to lead children in a general direction, provide them the necessary tools so that they are able to find information by themselves. Dr. Montessori talks about the teacher that allows liberty of the pupil, liberty that permits the development of the individual, spontaneous manifestations of the child's nature. (Montessori, 1964, p.38) The teacher is not in the front of the classroom, but she/he rather works quietly in the classroom and assists individual children or small groups only if needed. The conception of the Montessori teacher is one of guide or facilitator so that she/he works to provide enough space for children to engage independently in activities and to trust themselves as learners. The task of the teacher then becomes not one of talking, but one of preparing a series of motives of cultural activity spread in a specially prepared environment (Montessori, 1964).

Freedom of choice is a major concept in Montessori education. Through scientific study and observation, Dr. Montessori discovered that freedom of choice is crucial for children to meet their individual needs. 'An educational method that shall have *liberty* as its basis must intervene to help the child to a conquest of these various obstacles. In other words, his training must be such as shall help him to diminish, in a rational manner, the *social bonds*, which limit his activity. Little by little, as the child grows in such an atmosphere, his spontaneous manifestations will become more *clear*, with the *clearness of truth*, revealing his nature. For all these reasons, the first form of educational intervention must tend to lead the child toward independence' (Montessori, 1946, p. 75). Freedom of choice allows children to make choices and to decide on the materials they want to work with. Each Montessori classroom is a prepared environment, which is very inviting and enables children to learn by themselves. Very typical for every Montessori classroom are the low open shelves, containing the activities logically ordered in each area: Practical Life area, Sensorial area, Language area, Maths area, and the Cosmic Education area. In this fashion, kids are encouraged to move freely in the room and to choose the materials they would like to work on, but only within the limits of appropriate behaviour. This means that in the classroom, children must respect the Montessori ground rules, which are the following:

- Respect for oneself,
- Respect for others and
- Respect for the environment.

The role of the prepared classroom is central when discussing the Montessori Method. In her book '*The Montessori Method*', she gives a special attention to the schoolroom furnishings. Maria Montessori carefully thought about what each classroom should contain. She speaks about very light tables and chairs, washstands, lower cupboards, blackboards, and potted plants. In each classroom, everything is made ready for the children to an extent that they can explore and learn by themselves. The materials are not bright and shiny, but instead they are painted with muted colors because it is believed that children focus and concentrate more on the activity if they are not distracted by garish colours. Most of the materials are made of wood. Each material has a certain spot on the shelf, which, it is hypothesised, helps children develop and practice a sense of order.

In one of her lectures that were delivered in London, Maria Montessori talks about Movement and Character; she discusses the natural need in children for movement. She makes it clear that every movement needs to have a motive and purpose. She argues, 'We must understand that if we give children this active life with a great many motives of activity, activities that have a useful purpose, the children perfect their movements' (Montessori, 1946, p.41). She also speaks about the significance of activities that have a

purpose and permit movement in developing the child's character. Children possess the natural urge to imitate what they see in the environment. That is the reason why practical life activities are so essential in the Montessori classroom. Activities like sweeping, cooking, looking after animals, gardening, doing dishes, and washing, make sense to the children and they repeat these many times with pleasure. 'Through practical exercises [...] the children develop a true "social feeling," for they are working in the environment of the community in which they live, without concerning themselves as to whether it is for their own, or for the common good' (Montessori, 2007, p. 97).

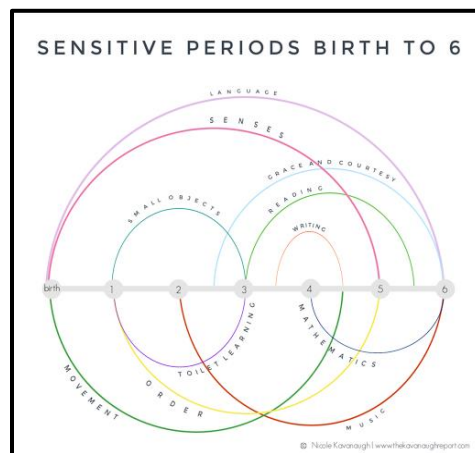
Modern psychologists, who followed children's development from birth to university age, can distinguish different and distinct periods of growth. In this context, Maria Montessori gave her own opinion in defining the periods of growth, or the sensitive periods of children. She describes a sensitive period as a time when the child shows a tendency to develop new knowledge and master new skills through the senses. She enumerates about the following sensitive periods:

- 0-6 period,
- 6-12 period
- 12-18 period. (Montessori, 1946, p.15-16)

Nevertheless, when describing these sensitive periods, she also states that each of these periods is subdivided in few sub-phases.

In her book '*The Absorbent Mind*', Dr. Montessori clearly states two periods in the early phase of development.

- Zero - 3 years: the child absorbs the environment,
- 3 - 6 years: the child realises the environment by the work of his hands. (Montessori, 1949, p. 121)



0-6 Language	0-4, 5 Movement
0-5 Senses	1-5 Order
1-3 Small objects	1-3 Toilet learning
2, 5-6 Grace and Courtesy	2-6 Music
3, 5-5, 5 Reading	4-6 Mathematics
3, 5 – 4, 5 Writing	

From many aspects, Maria Montessori believes that every child is a teacher of her/himself. At two years of age, each child is already able to recognize all the things and persons in their environment (Montessori,

1949, p. 6). This happens due to the fact that a child is in a period when no one can teach her/him, but she/he possesses, in Montessori's view, a psychic power that helps in learning. At three years of age, the child has already laid the foundations of her/his personality and is ready for education in school. Psychologists say that if we compare our ability as adults to that of the child, it would require us 60 years of hard work to achieve what a child has achieved in these first years' (Montessori, 1949 p.6). Therefore, 0-3 years period is actually a period of unconscious absorption, and from 3-6 years, a period of conscious absorption. The environment constructed for the 3-6 year olds is designed so that the child can learn through hands-on activities and sensorial exploration. This period applies to the development of the personality and social behaviour. Children learn the basics of self-control, good manners, peace, kindness, respect and gentleness.

4. DEVELOPING THE CHILD IN MONTESSORI PRE-SCHOOL

The focus on the development of the whole child is a unique feature of the Montessori Education. The Montessori system emphasises the main four elements of children's development:

- Physical,
- Social,
- Emotional,
- Cognitive.

4. 1 Physical Development

Physical movement in the Montessori classroom is particularly important because Maria Montessori believed that movement is needed for higher cognitive development of the child. She explains that knowledge learning and movement are interconnected and that learning via the senses engages the whole body of children. 'Since the child now learns to *move* rather than to *sit still*, he prepares himself not for the school, but for life; for he becomes able, through habit and through practice, to perform easily and correctly the simple acts of social or community life. The discipline to which the child habituates himself here is, in its character, not limited to the school environment but extends to society' (Montessori, 1964, p. 70). Every single thing children do, involve movement. Children that move around and stay bodily active, grow physically and reach physical maturity. Children connect with the environment through movements. One aspect of the environment is Outdoor Play. Outdoor Play is very interesting and inviting to children since they get an opportunity to go outside and connect with nature, play with leaves, sticks, rocks, mud, stones, sand. As soon as the baby is born, there is a strong interest for walking. Maria Montessori makes it clear that it is natural for the child to show predisposition for walking. 'So, their habit was to walk till they found something interesting that attracted them, a forest that might supply wood, a place to sow crops, and so on. This instinct of moving about in the environment, passing from attraction to attraction forms part of nature itself, and of education. Education must consider the walking man who walks as an explorer' (Montessori, 1949, p.116). This is how the child becomes an explorer. The more the child moves and walks, the more she/he explores. Children follow their interests, they find out something they did not know and that is the way of attaining intellectual interest through movement.

Montessori claims that, 'It is certain that the function of the feet is biological, yet it is connected with an inner development in the brain' (Montessori, 1949, p.107). She also speaks about the importance of orientation in relation to the environment. Here, she sees connection between vision and movement. The child needs to know where to move (Montessori, 1949). Montessori strongly believes and states that we cannot divide movement from brain. They are linked. Therefore, mind and activity are the two parts of one cycle, movement being an expression of the superior part. She proves this by giving an example, stating that throughout the history, when civilizations and man arrived on the Earth, they used handiwork. With

this example, she shows that the development of the hand goes side by side with the development of intelligence (Montessori, 1949).

4.2 Social Development

Another concept of child's development is social development. Social behaviour can be attained through concentration. That is why in the Montessori classroom, focus is given to concentration. The schools are designed so the children can find the kind of work they want to do, and they can fully concentrate on that. Montessori materials or objects that are on the shelves are arranged in such a way that children can choose to work with a specific material according to their interests.

In a class with many children, there is only one unique material; there are not copies of Montessori materials in one classroom. When a child works with one material, the other child may not work with the same one, until the other child finishes the activity. This is one way in which the social qualities develop. The child will learn to respect the material when used by another child, but not because someone told her/him to do so, but because that is what she/he experienced through the social experience (Montessori, 1949). The moral virtue that they preach and learn by the social experience is patience. Through patience, they can help to achieve a harmonized society.

In the social interaction, the Montessori teacher should not interfere; she/he must leave children to solve the problem by themselves. Here, problem-solving and collaboration skills are fostered. Mixed-aged groups help children to socially interact and learn from each other. Both younger and older children benefit in such groups, because the younger children ask questions and learn from the older ones, and the older ones build their leadership skills.

4.3 Emotional Development

Emotional development is also promoted in the Montessori environment. The Montessori Method help young children to build emotional intelligence through the activities, interactions and relationships. The Montessori philosophy encourages love and understanding for every child, by following the child as an individual. As mentioned above, children in the Montessori classrooms practice skills of self-confidence and self-esteem. Respect is highly valued in the classroom. Via concentration, children gain their inner peace. Montessori children are not only able to manage emotions but also to acknowledge them.

4.4 Cognitive Development

According to the Swiss psychologist Jean Piaget, the cognitive development is a progressive reorganization of mental processes resulting from biological maturation and environmental experience (Piaget, 1936). As we have seen, children in the Montessori classroom are explorers and they teach themselves within the setting. They are allowed to follow their inner selves and their interests and build their knowledge and character based on those interests. In social interaction, they are left to problem-solve their issues with their classmates. By choosing the materials they want to work with, they take many decisions during the day and build their self-esteem and self-confidence. Children play outside and they interact with the environment and nature. They learn how to take care of themselves and the environment, so they clearly understand their existence and their belonging to this world. Moreover, intelligence is shown through physical and motor activities. Their knowledge of the world develops, based on physical experiences and interactions. 'The child can develop fully by means of experience in his environment. We call such experiences 'work'' (Montessori, 1964).

Maria Montessori in her book *'The Absorbent Mind'* gives attention to the mother's role in child's cerebral development. She states that if education starts from birth, the mother should first protect the psychic need

of the child (Montessori, 1949). She explains that each and every newborn are alike. Therefore, one method should be applied to the newborns in order to assist in ‘constructing the man’. ‘What must preoccupy us, what must take our energies is the *assistance* to those laws of growth that are common to all’ (Montessori, 1949, p. 39). The mother has a dominant role, because when the baby is born, its first period of life is adaptability. The newborn cannot move, but it has to develop its psychic life first. In Montessori’s words, nature gives mothers, so they keep the baby next to their own body and protect them. When being born, the baby experiences a birth terror. ‘This birth-terror, it has been observed today, leads to something much more terrible than vocal protests, it leads to wrong characters assumed by the child as it develops’ (Montessori, 1949, p. 60).

Children develop their independence by the laws of nature. When a baby is 6 months old, it starts to realise that it does not need mother’s milk so much, because it starts to consume food. Then, when a toddler starts to talk and walk, she/he realises that it can do so many things without the help of the mother. They can ask for what they need and they can grasp or take the things they want.

In addition, the mother has to make sure that in the environment there is not too much light or noise. The social interaction of babies and adults is not the same, and that is why mothers should not immediately let relatives go and see the baby (Montessori, 1949). Again, the mother is more responsible for the process of adaptability. After the process of adaptability, the child has a need for the environment in order to develop her/himself. The environment should be prepared so to provide motives of activity, which belong to her/his path of development. The mother should never leave the child; she must help in the process of learning the language. She must take the child with her, so the child can be involved and hear different conversations (Montessori, 1949, p.70-85).

5. CONCLUSION

The Montessori Method is practiced all around the world. Many centres and Montessori settings have been opened in different parts of the world. There are many training sessions for new Montessori teachers and educators too. This tells us that the Montessori philosophy has been extremely influential. It is a special and unique pedagogy, which is one of the reasons why we should consider Montessori techniques for future and further exploration. We live in a world where the teacher-centered classrooms are disappearing and children-oriented classrooms are evolving. That is exactly what Montessori system advocates in the lessons. However, there is more than that. Montessori education helps children to attain their full development as individuals. If we want a world with children that think for themselves, solve problems and make decisions, we need to focus not only on the intellectual development of the child, but also on their emotional, physical and social development. The key principles used and practiced in the Montessori setting, help pre-school children reach their full potential and development.

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