

## **Anthropological Consideration and Infrastructure in ‘Children’s Houses’: An Explanation to the Montessori Method**

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### **Abstract**

The Montessori educational approach takes into account the fact that children learn in varied ways and accommodates them all. Each student is given the opportunity to grow as long as they are prepared, supported by their teacher, and have a unique learning plan. The Montessori approach encourages children’s physical development and growth by making sure they are active throughout the day. Along with receiving a comfortable sleep at night, children who are physically engaged frequently have stronger muscles and bones. The prepared atmosphere is referred to as the Montessori classroom. Everything has a place and a purpose in the thoughtfully designed learning environment. Everything is made to be open and accessible, the furniture is lightweight and child-sized, and the learning materials are made to fit in small hands. The present research work is an attempt to understand the effectiveness of the Montessori Method in terms of its anthropological considerations and the infrastructural setup of the learning environment.

**Keywords:** Maria Montessori, Montessori Method, Pedagogical Methods, Children’s House, Anthropological Consideration

*“As soon as I knew that I had at my disposal a class of little children, it was my wish to make of this school a field for scientific experimental pedagogy and child psychology. I started with a view in which Wundt concurs; namely, that child psychology does not exist. Indeed, experimental researches in regard to childhood, as, for example, those of Preyer and Baldwin, have been made upon not more than two or three subjects, children of the investigators. Moreover, the instruments of psychometry must be greatly modified and simplified before they*

*can be used with children, who do not lend themselves passively as subjects for experimentation.” – Maria Montessori (The Montessori Method Scientific Pedagogy as Applied to Child Education In “The Children’s Houses”).*

Critical publications and unconventional methods solidified Maria Montessori’s influence (Adhikari and Saha, 2021a). Today, some 115 years after her initial publication, critical discussions and dialogues regarding difficult social issues within the context of Montessori education are beginning to emerge (Adhikari and Saha, 2021b). These discussions acknowledge the Montessori Method’s advantages as well as the methods Montessori education has spread to other communities, nations, and indigenous territories (Murray et al. 2023). The Montessori Method has seen tremendous success in recent years (Debs, 2016). In order to comprehend Montessori pedagogy’s qualities, it is critical to remember the historical and cultural environment in which it was developed. The first ‘*Children’s House*’ of its kind was opened by Maria Montessori, an Italian doctor by training, in 1902 to care for children from a poor neighbourhood in Rome (Foschi, 2008).

The only way to determine child psychology is through external observation. According to Montessori, we must give up any notion of documenting inner feelings, which can only be discovered through introspection by the subject. Up until now, the esthesiometric phase of the study has been the only one where psychometric research tools have been used in pedagogy. Maria Montessori wanted to stay current with other researchers’ work while also establishing her own independence and approaching her work without any prejudices (Adhikari and Saha, 2023). The assertion that all experimental psychology procedures can be reduced to one, namely, carefully documented subject observation, was kept by Montessori as the sole essential. The study of development must inevitably be included while treating children. Montessori maintained the same basic standard in this instance as well, but did not hold to any dogma regarding the activity of the child in accordance with age.

### **Anthropological Consideration**

The regulation of anthropometric observations and the selection of the most crucial observations to be made were Montessori’s first considerations with regard to physical development. An anthropometer with a metric scale that ranges from 0.50 metres to 1.50 metres was created by Montessori. For measures collected while seated, a tiny stool 30 centimetres

high might be placed on the anthropometer's floor. Then, Montessori suggested building the anthropometer with platforms on either side of the pole holding the scale, allowing for the measurement of both total stature and sitting height on either side. In the second instance, the zero is marked at 30 centimetres, which meant it matched the fixed stool seat. It was able to measure two children at once since the indications on the vertical post were independent of one another. By doing this, the effort of having to compute the difference in the metric scale is also avoided, as well as the discomfort and loss of time resulting from having to move the seat around. After making the research methodology easier, Montessori decided to measure the children's height, both standing and sitting, once a month. In order to have these measurements as precisely regulated in relation to development as possible, as well as to increase the regularity of the teacher's research work, Montessori made an arrangement that the measurements should be implemented on the day on which the child completed each month of his age (Marshall, 2017).

Regarding the child's weight, Montessori had planned for it to be measured once a week on a pair of scales she had positioned in the changing area where the kids took their baths. When the youngster was ready for a bath, Montessori had him weighed in accordance with the day of his birth. As a result, the children's baths were divided over seven days, with three to five kids using the bathroom each day. Theoretically, taking a bath every day would be ideal, but to do this, either a large bath or a number of tiny ones would be required, allowing for the simultaneous bathing of a sizable number of children. Even taking a bath once a week is difficult and must occasionally be abandoned. In any event, Montessori dispersed the weight-taking in the sequence specified with the purpose of setting up and ensuring regular baths.

The only measures that the schoolmistress should be concerned with, and the only measurements that should be taken in the school proper, seemed to be the anthropological measurements that Montessori had just described taking and recording. It was Montessori's intention that additional measures be made by a doctor who either specialises in baby anthropology or is in the process of becoming one. In the meanwhile, Montessori herself took these specific measurements (Montessori, 2004).

By using this technique, the anthropometric records are organised in an orderly manner, and the simplicity of the process and the clarity of the charts ensure that the type of observations that Montessori thought were crucial may be made. The measures of the head circumference, the two bigger head diameters, the chest circumference, and the cephalic, ponderal, and height

indices should all be done once a year, according to Montessori, who cited the doctor's biographical chart. Further information concerning the selection of these measurements can be found in Montessori's, *Antropologia Pedagogica*. The doctor was instructed to take these measurements during the week, or at the very least throughout the month, that the child completes his first year of life, and, if practical, on the child's actual birthday. Due to its regularity, this would also make the job of the doctor easier. The number of students in each Montessori school at that time would have been no more than fifty, and because their birthdays are spread out over the course of a year, the doctor was able to conduct periodic measures without his workload becoming too onerous. It was the teacher's responsibility to let the doctor know when each youngster had a birthday.

The taking of these anthropological measurements also serves an educational purpose in that when the students left the 'Children's House,' they were able to answer the following questions with clarity and certainty: "What day of the week were you born? What day of the month is this? What day is your birthday?" With all of this, children would develop orderly behaviours and, most importantly, the habit of observing themselves. In fact, it is crucial to note that the children enjoyed the experience of being measured; upon catching the teacher's eye and hearing the word 'statue,' the children started removing their shoes right away, laughed and ran over to the anthropometer platform, setting themselves up in the proper position so naturally that the teacher only needed to set up the indicator and read the results. In addition to taking measurements with the standard tools that is, callipers and metal yardsticks, the doctor also observed the children's blood quality, skin colour, lymphatic gland health, muscular tone and other related factors. He took note of any abnormalities and carefully detailed any pathological diseases, such as any predisposition towards rickets, new born paralysis, poor vision, etc. The doctor's decision to consult with the parents about the condition of the child was led by this objective examination of the child. After that, when the doctor thought it would be best, he performed a complete, sanitary inspection of the child's house, giving the appropriate medication to eventually get rid of problems like ear irritation, eczema, feverish conditions, intestinal disturbances, etc. The presence of the dispensary inside the house made it possible for direct treatment and ongoing observation, which considerably aided in the thorough monitoring of the situation at hand. Since the majority of the people who lived in these tenements were totally normal, Montessori discovered that the typical inquiries asked of patients who visit clinics are not appropriate for use in schools. Therefore, Montessori advised

the school's director to glean more useful information from her conversation with the mothers. She educated herself on the parents' backgrounds, their spending habits, their income, other factors, and from all of this she drew a history of each family. Naturally, this approach is only useful in situations when the directress resides close to the homes of her students. However, in every instance, the doctor's instructions to the mothers regarding the hygienic care of each individual child's as well as his recommendations regarding hygiene in general, proved to be of great assistance. It was because she had the mothers' trust and because such advice naturally comes from her, the director should serve as the middleman in these situations (Montessori, 1912).

### **Environment: Classrooms and Furnishings**

The method of observation must unquestionably incorporate the careful monitoring of the child's morphological development. Although this aspect must be present, the approach was not developed using this specific type of observation. The freedom of the students to express themselves naturally served as the method of observation's primary foundation (Gentaz & Richard, 2022). With this in mind, Montessori focused first on the issue of the environment, which of course included the classroom's decor. A significant aspect of this school's atmosphere was thought to be an expansive playground with room for a garden. The uniqueness in her plan for using this outdoor area is that it will be in close proximity to the classrooms, allowing the children to come and go as they like throughout the entire day.

The elimination of desks, benches, and stationary chairs is the most significant change made to school furniture. Two four-year-old children can easily carry two tables that Montessori had provided because of their wide, sturdy, octagonal legs that spread in such a way that they are both incredibly light and substantially hard. These tables were rectangular and big enough for three people if they sat fairly close together, with room for two kids along the long side. There are smaller tables where a single youngster can complete their job. Additionally, Montessori created and had tiny chairs made. Originally, Montessori intended for these to be cane-seated, but after realising how much wear and tear these would endure, she had chairs manufactured entirely of wood (Montessori, 2004). These had a lovely form and were incredibly light. In addition to this, Montessori added several cosy small armchairs, some made of wood and some of wicker, to each classroom.

A tiny washstand that was part of the Montessori furniture was also accessible to children as young as three. There were small side shelves for the soap dishes, nail brushes, towels, etc. in addition to the broad above and lower shelves that held the small white enamelled basins and pitchers. This was painted with a weatherproof enamel. Additionally, there was a container where the basins could be emptied. Everywhere possible, a small cupboard served as the child's personal storage area for items like soap, a nailbrush, a toothbrush, etc. They had installed a number of long, low cupboards in each Montessori classroom that were intended to hold the didactic materials (Montessori, 1912).

These cabinets' doors were simple to open, and the kids were trusted with the material's upkeep. These cases' tops provided space for small aquariums, potted plants, or the many toys that the kids were free to play with. The blackboards in Montessori schools were hung in such a way that even the youngest child could use them. A little case containing the chalk and white cloths, which were used in place of traditional erasers, was provided with each chalkboard. Attractive images illustrating straightforward scenes that youngsters would naturally find interesting were displayed over the blackboards. A replica of Raphael's *Madonna della Seggiola* was hung among the paintings in Montessori's '*Children's House*' in Rome, and this image was chosen as the logo for the '*Children's Houses*.' Indeed, these '*Children's Houses*' were directly linked to the advancement of the concept of motherhood, the advancement of women, and the safety of their progeny. They symbolised not only social improvement but also universal human progress. In this lovely vision, Raphael not only depicts the Madonna as a Divine Mother holding the child who is bigger than she is, but he also places the figure of St. John, who stands in for humanity, next to the Madonna as a symbol of all motherhood. Therefore, in Raphael's painting, we witness humanity paying respect to motherhood, the exquisite fact in mankind's undeniable triumph. The image has enormous importance as one of the greatest works of art by Italy's greatest artist in addition to its lovely symbolism. It was Montessori's hope that this painting by Raphael would be shown in each of the '*Children's Houses*' when they were all built around the world, speaking eloquently of the nation from which they came (Montessori, 1912).

The little tables and many types of chairs at the Montessori school were all lightweight and portable, allowing the kid to sit in whatever position he found most comfortable. He could set himself up in a comfortable position and take a seat by himself. Additionally, this freedom served as a tool for teaching as well as an outward symbol of freedom. A youngster will have

an obvious demonstration of their inability if they disturb a chair by making a clumsy movement; if the movement had occurred among stationary benches, he would not have noticed it. The youngster would then have a way to correct himself and, after doing so, would be able to see concrete evidence of the authority he has acquired: the tiny tables and chairs remain firmly and silently in their respective locations. It was obvious that the little infant had mastered the ability to control his motions. According to the outdated approach, the child's immobility and silence served as the best indicator of discipline achieved. Silence and immobility prevented the child from learning how to move gracefully and wisely. As a result, he was so untrained that when he was placed in an environment where chairs and benches were not nailed to the floor, he was unable to move without knocking over the lighter pieces of furniture. The youngster would learn correct manners and grace in the '*Children's Houses*,' as well as the significance of such deportment. He would benefit from his newfound mobility for the rest of his life. He develops the ability to conduct himself properly while still being able to exercise complete independence (Montessori, 2004).

### **Conclusion**

In summary, many aspects of the Montessori pedagogy positively take into consideration children's developmental requirements and should be a fundamental part of teachers' working modalities in contemporary schools. The Montessori method of education acknowledges that children learn in various ways and caters to them all. Each student is allowed to advance as he or she is prepared, guided by the teacher and a personalised learning plan. The Montessori approach encourages physical development and maturation by making sure that children are moving around and being physically active throughout the day. Children who are physically active not only have stronger muscles and bones, but they also typically sleep better at night. The prepared environment is the term used to describe the Montessori classroom. It is a purposefully organised learning environment where everything has a place and a purpose. Everything is made to be open and accessible, the furniture is light and child-sized, and the learning materials are made to fit in kids' hands. The effectiveness of the 100-year-old Montessori Method is supported by recent research, which shows that kids in Montessori classrooms have more developed social-emotional abilities than kids in more conventional settings.

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