

# The Effect Of Montessori Classroom Practices On Children's Empathy And Prosocial Skills

Lila Ali Alhashim

Prince Mohammad bin Fahd University. lalhashim@pmu.edu.sa

---

**Abstract**—Teaching empathy and prosocial skills is essential for children's socioemotional development starting at a young age. This literature review investigated studies of how Montessori classroom practices shape empathy and prosocial behaviors in early childhood education. Much of the reviewed research indicated that employing one or more Montessori practices in the classroom and at home had a positive impact on developing children's empathy and prosocial skills. These skills were mainly improved through three key practices: mixed-age play, nature activities, and life practice activities. Implications and applications are discussed to foster a broader implementation of the Montessori philosophy and practices.

**Index Terms:** Montessori practices, empathy, prosocial skills, early childhood.

---

## I. INTRODUCTION

Ten years ago, I was working in a Montessori kindergarten classroom, where I observed children practicing social and empathic skills. The more experience I have gained in traditional schools, the more I wonder why children in Montessori classrooms display more prosocial behaviors than children in traditional classrooms. What are the practices that Montessori schools use to develop empathy and prosocial skills in young children? In this literature review, I examined research from 2009 to 2024 that explored empathy and prosocial behaviors in Montessori early childhood education.

Spinrad and Eisenberg defined prosocial behavior as “voluntary behavior intended to benefit another” [1] (p. 119). It also can be defined as “exhibiting an array of social-emotional responses, such as empathy, sympathy, and compassion, that is defined as significant by a segment of society” [2] (p. 665). Empathy can be defined as an “affective response ... identical to or very similar to what another person is feeling or is expected to feel” [1] (p. 119). Empathy also includes feeling “with the other person” at the same time [2] (p. 665). Empathy is when feeling happens without judging, and entails understanding and participating in the feelings of others [3].

Developing empathic behavior is a process with many layers, including children's identification of feelings around them and imitation of others. The development of empathy goes beyond the emotions to cognitive and imaginative developments [3]. Empathetic development begins when newborns respond to another newborn's cry of distress with their own reactive cries [2]. Therefore, children have firsthand experience with empathy when they are around other children. Interaction allows them to understand each other's feelings and react accordingly.

When children transition from infants to toddlers, they learn how to comfort others who are in pain by giving hugs [2]. As children progress in empathetic development into the preschool years, children start to understand and act more appropriately with others [2].

Since young children spend around half of their day in school, it is important for teachers to know that children's empathy can be influenced by them and their peers [2]. Teachers need to understand their important role in influencing the development of students' empathy and in directing them to learn empathy from each other. This can be done by relationship reinforcement and modeling [2]. Empathy is a trait of the human person that is very important to develop at early ages because during this period children learn behavior through imitation [3].

Throughout the years, academic advisers in traditional schools have noticed that teachers have more interest in teaching academic skills and less interest in teaching prosocial skills. However, Maria Montessori recommended teaching skills such as self-care, helping and serving meals, and caring for animals and plants [4] (p. 16). According to Montessori, “the best means of invigorating the child is to immerse him in nature ... the child at agricultural labour, guiding him to the cultivation of plants and animals, and so to the intelligent contemplation of nature” [4] (pp. 98, 99).

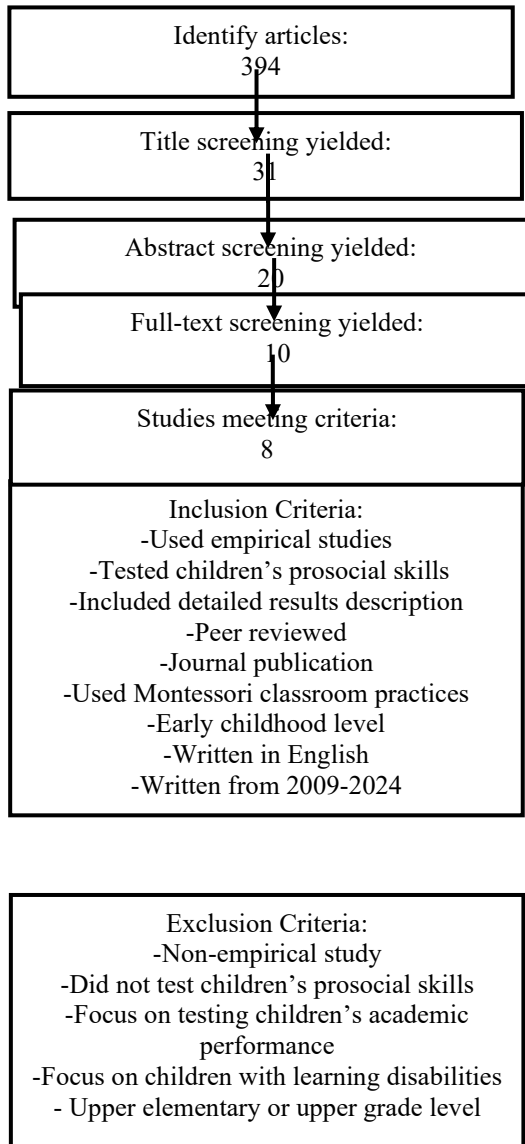
This study, therefore, was guided by the research question “What is the effect of Montessori classroom practices on children's empathy and prosocial skills in early childhood classrooms?”

## II. METHOD

### A. Culling the Relevant Literature

I performed electronic searches in the University of South Florida Libraries database on the terms listed in Table 1. These searches yielded 394 articles. Then, I analyzed each article’s title, abstract, methodology, and/or research findings to select only relevant studies. After the screening steps (Figure 1), eight studies met the inclusion and exclusion criteria.

Figure 1: Study Selection Process



**Table 1** Electronic Search Terms and Results

Search term	Results
1. Developing empathy in early childhood	8
2. Empathy and pro-social behavior in early childhood	30
3. Mixed age children play	88
4. Montessori children outcomes	23
5. Early childhood and family Montessori	180
6. Children behavior in mixed age classroom	23

### B. Inclusion and Exclusion Criteria

The inclusion and exclusion criteria were determined in early January 2024 and revisited in March 2024, after spending more time brainstorming the literature review and revising the research question scope through analyzing the initial research results that were part of the assignment request in Seminar into Research class. The criteria were also modified to find a wider range of articles to support the literature review.

#### 1) Publication Status

This review included peer-reviewed empirical studies published in English from 2009-2024, since not enough relevant results were found for the past 5 years alone. Both qualitative and quantitative studies were included.

#### 2) Topic Specific

The studies in this review focused on Montessori classroom practices and early childhood prosocial skills and empathy. Studies that did not involve Montessori practices or test children's prosocial skills were excluded, as were studies that had prosocial skills differences based on children's race and gender.

#### 3) Participants

All of the included studies were conducted in Montessori schools with normally developing children 3-8 years old, from kindergarten to third grade level. Studies involving students in different grade levels (i.e. upper elementary, middle, and high school levels) were excluded. Studies of children with learning disabilities were also excluded.

## III. FINDINGS

This section presents findings from the eight reviewed studies that specifically applied Montessori classroom practices and tested their effects on children's empathy and prosocial skills development. The reviewed studies identified three categories of Montessori practices that affected these skills in early childhood: mixed-age play, nature activities, and life-practice activities.

### A. Mixed-Age Play

A standard Montessori practice is grouping children of different ages in one classroom [4]. Montessori supports mixed-age classrooms in preschool to help children develop social and emotional skills [5]. Lillard et al. found that Montessori education aligned with practices that were more optimal for children's development than traditional early childhood schooling [6]. Children enrolled in Montessori schools showed better achievement and social understanding [6].

Under the umbrella of Montessori's mixed-age play practices, a 2011 study by Gray showed that when older children played with younger children, the younger children received more emotional support from the older children than from peers their own age [7]. The study also found that the older children saw themselves as role models and learned to teach the younger ones and be leaders [7].

Additionally, Rouse conducted a 2015 case study to test the benefits of mixed-age grouping in an outdoor learning environment [8]. The participants were 125 children in a long day care setting in urban Australia, with children under 3 years in one group and children 3 years and above in another group. Data were collected from interviews of staff and space designers and from observing children and tracking behaviors during their play time. Children were allowed to choose to play indoors or outdoors with their choice of friendship groupings. The teachers reported that the multi-age outdoor space for learning had some significant strengths. The teachers observed positive behaviors from the children such as learning relationships, empathy, caring, mentoring, and resiliency. However, the planning and purposeful teaching in the program were not detailed in the research study.

### B. Montessori and Nature

Lithoxidou et al. conducted research in 2017 with 17 5-year-old children in a public kindergarten [9]. Children in the experimental group received an environmental education program where they were exposed to the natural environment and given information about nonhuman beings and how humans can affect them to survive. The researchers measured the values and attitudes of the experimental and control groups before and after the program implementation. Based on semistructured interviews, the researchers found that children in the experimental group practiced emotional role-taking with empathy and consideration for others, developed awareness of the forest, and were able to make decisions that showed moral development, while children in the control group did not show further empathic or moral development [9].

### C. Montessori Life Practices

Montessori teaching methods focus on providing a classroom environment where the children have opportunities to practice activities of their choosing [10]. The researchers Scott and Glaze conducted a study in a public Montessori school in the United States. In the study, students chose an activity to do each night at home. They chose from life practices such as “practice physical activity, community service, reading, household responsibilities, and other similar Montessori-based activities” [10] (pp. 4-5). To ensure self-discovery, the teachers asked the parents to give the children the chance to choose their own homework just as they would in the Montessori classroom [10]. Data were collected from teachers, parents, and students in Grades 1-3 and Grades 4-6. Teachers were interviewed about their perceptions of the new homework policy and the students’ responses in their journals. SurveyMonkey was used to collect data from the parents. The survey questions used a Likert-type scale to measure “the frequency of homework-related behaviors and their perceptions of the homework policy” [10] (p. 5). The work samples collected from the students showed the types of homework the students chose, while the students’ interviews showed what they learned from their homework. The students’ journal responses reported that more help was provided at their homes with chores. On one hand, teachers indicated that they did not notice any change in students’ performance on standardized assessments. On the other hand, parents indicated that most of them preferred this type of homework activity because it developed their children’s ability to help and care for their families and animals.

Research conducted by Epstein in 2015 explored why families chose to send their children to Montessori schools [11]. Of the parents surveyed, 50% reported that their children “learning to be kind” was their top priority for sending them to such schools. Hiles’s (2018) study was guided by a similar question: “Why did you decide to send your child to Montessori school?” [12] (p. 5). His findings supported the finding of Epstein’s study: 32% of parents surveyed reported appreciation for the Montessori classroom, and 60% of those cited calm and respectful classroom environments. These results support the value of the Montessori classroom environment in developing children’s prosocial skills.

## IV. DISCUSSION

This literature review presented findings on how Montessori classroom practices affect young children’s empathy and prosocial skills development. The review identified three practices supported by Dr. Montessori’s philosophy and used with early childhood classes: mixed-age play, nature activities, and life practices activities. All three were found to develop young children’s prosocial skills and empathy. Parents and teachers reported better prosocial skills (empathy, love, care, giving, etc.) when children applied Montessori practices in their classrooms or at home.

The Montessori practice of mixed-age play may conflict with some school policies, but the other classroom practices presented in this literature review (nature and life practices activities) can be implemented by teachers in traditional schools. Their influence on children’s empathy and prosocial skills was not clear, and there was more evidence of their benefit for children in upper grade levels. However, if teachers apply these strategies from a young age, children will show more empathic and prosocial skills that might help them in later grades. To this end, a wider range of Montessori practices and strategies are needed to provide teachers with more choices for classroom implementation.

## V. LIMITATIONS

This review had several limitations. The first was the research time frame (2009-2024). This period of time was selected to include the most recent research in the field at the time of the review; however, it prevented the inclusion of findings from previous years that might support the research question. Notably, in searching for articles to review, I did not find enough articles on the specific topic of how Montessori practices affect young children’s empathy and prosocial skills.

Another limitation was that I excluded studies that did not specifically involve Montessori practices. This prevented the inclusion of research on prosocial skills that did not explore the Montessori philosophy or its practices, as well as other classroom practices that teachers could use to develop children’s prosocial skills.

Finally, the review only included studies of children aged 3-8. However, this limitation allowed me to present findings specific to educators and researchers in the early childhood field.

## VI. QUESTIONS FOR FUTURE RESEARCH

Based on this review, there are several gaps in the research related to this topic. Researchers could examine the effects of other Montessori practices such as the free learning environment, teachers’ limited roles in the classroom, and Montessori classroom materials (the pink tower, etc.). The role of teachers in affecting young children’s prosocial

skills could be explored, along with the effects of teacher professional development programs. The effects of Montessori sensory and art centers on children's prosocial development could also be examined, as they involve more activities for teachers to practice in early childhood education.

## REFERENCES

- [1] T. Spinrad and N. Eisenberg, "Empathy, prosocial behavior, and positive development in schools," in *Handbook of positive psychology in schools*, pp. 90-106, Routledge, 2014.
- [2] E. Willis, "An empathetic beginning in education: Exploring the prospects of self-regulation skills on pro-social behaviour in the early childhood environment," *Early Child Development and Care*, vol. 186, no. 4, 662-670, 2016.
- [3] E. A. Santi, "The development of empathy in pre-schoolers," *Romanian Journal of School Psychology*, vol. 7, no. 14, 32-38, 2014.
- [4] M. Montessori, *The Montessori method*, Transaction Publishers, 2013.
- [5] R. Plotka, "Comparing peer-interactions, teacher-child interactions, and challenging behaviors in same-age and mixed-age preschool classrooms," *International Journal of Early Childhood Learning*, vol. 23, no. 3, 21-31, 2016.
- [6] A. S. Lillard, M. J. Heise, E. M. Richey, X. Tong, A. Hart, and P. M. Bray, "Montessori preschool elevates and equalizes child outcomes: a longitudinal study," *Frontiers in Psychology*, 2017, <https://doi.org/10.3389/fpsyg.2017.01783>.
- [7] P. Gray, "The special value of children's age-mixed play," *American Journal of Play*, vol. 3, no. 4, 500-522, 2011.
- [8] E. Rouse, "Mixed-age grouping in early childhood—creating the outdoor learning environment," *Early Child Development and Care*, vol. 185, no. 5, 742-751, 2015.
- [9] L. S. Lithoxoidou, A. D. Georgopoulos, A. T. Dimitriou, and S. C. Xenitidou, "'Trees have a soul too!' Developing empathy and environmental values in early childhood," *International Journal of Early Childhood Environmental Education*, vol. 5, no. 1, 68-88, 2017.
- [10] C. M. Scott and N. Glaze, "Homework policy and student choice: Findings from a Montessori charter school," *Journal of Montessori Research*, vol. 3, no. 2, 1-18, 2017.
- [11] A. Epstein, "Montessori early childhood teacher perceptions of family priorities and stressors," *Journal of Montessori Research*, vol. 1, no. 1, 1-13, 2015, <https://doi.org/10.17161/jomr.v1i1.4939>.
- [12] E. Hiles, "Parents' reasons for sending their child to Montessori schools," *Journal of Montessori Research*, vol. 4, no. 1, 1-13, 2018.