



CONCEPTUAL ANALYSIS OF THE MONTESSORI MODEL  
IN THE DEVELOPMENT OF DAYCARE PROGRAM QUALITY

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**Abstract**

This research intends to conceptually examine the Montessori Model and its role in enhancing the quality of daycare programs, specifically its application in Pocenter Playgroup, Ponorogo. Employing a descriptive qualitative approach, the study gathered data via direct observation of educational activities, comprehensive interviews with parents and teachers, and documentation of routine learning records and children's portfolios. The results indicate that the organized environment, access to multisensory resources, and the combination of sensory and practical life activities are central to Montessori practices within the daycare environment. These activities promote children's autonomy, focus, imagination, and self-control, while also enhancing fine-motor skills and social-emotional abilities. Interactions between teachers and children demonstrate educators' roles as facilitators and observers, enabling children to actively explore and engage with tangible materials suited to their developmental stages. Genuine assessment via portfolios and daily records improves communication with parents and guarantees ongoing stimulation between home and school. The research highlights various challenges, such as differences in teacher proficiency, scarce access to quality Montessori materials, and the necessity for improved assessment instruments. In summary, the results highlight that the Montessori Model provides an extensive conceptual foundation that greatly enhances the quality of daycare programs when applied consistently and backed by proper teacher training, oversight, and contextual adjustment. This research emphasizes the significance of combining conceptual comprehension, teaching methods, and program assessment to enhance early childhood education services in daycare environments

**Keywords:** Daycare Quality, Early Childhood Education, Learning Assessment, Montessori Model.

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**INTRODUCTION**

Early Childhood Education (ECE) is a crucial foundation for a child's cognitive, social, emotional, and physical growth. During the golden age (3–6 years), brain growth occurs rapidly, requiring appropriate, targeted, and consistent stimulation to maximize their

full potential (Mahardhani et al., 2022).

Montessori, as an educational method, is widely recognized for its ability to adapt the learning process to a child's natural developmental stages, providing opportunities for exploration, and emphasizing child-centered education. In the context of today's families, the

increasing number of career mothers has fueled the need for daycare services as an alternative place for care and education. Data from the Central Statistics Agency shows that by 2022, there will be 52.74 million working women in Indonesia, or 38.98% of the total national workforce, making the demand for quality daycare services increasingly crucial. Childcare institutions now serve not only as childcare centers but also as educational institutions, expected to provide comprehensive developmental stimulation through appropriate learning methods (Kusumaningrum et al., 2024).

Various recent studies reinforce the significance of Montessori-based education in the context of early childhood education. Research shows that the Montessori approach successfully supports cognitive development, fine motor skills, social-emotional abilities, and character development in children at an early age (Courtier et al., 2021; Saputra, 2025; Yulia et al., 2022). A study by Rusdiani et al. (2023) showed that creative activities using natural materials designed with Montessori principles can significantly promote children's motor development at Pocenter. Globally, study also suggested that the Montessori method plays a role in developing children's executive abilities and

independent learning, particularly when the learning environment is structured consistently with Montessori philosophical principles (Hien, 2024). These findings suggest that a conceptual analysis of the Montessori model is crucial to ensure this approach truly supports the quality of daycare services in accordance with modern educational standards.

Pocenter Daycare Ponorogo, is one of the daycare institutions that has adapted the Montessori model into its curriculum and learning activities since 2022. Previous research shows that Pocenter not only offers Montessori facilities and media but also creates thematic teaching modules aligned with the Independent Curriculum and involves teachers who have undergone Montessori training. The implementation of the Montessori model at Pocenter is evident in sensory activities, exploration with real objects, independent habits, and the use of concrete materials in the learning process. Furthermore, daily recording of children's activities serves as a tangible form of assessment that allows parents to continuously monitor their children's progress. However, the conceptual aspects of how the Montessori model contributes meaningfully to the quality of childcare programs still require in-depth analysis so that these practices can be

evaluated from the perspective of improving the quality of educational services.

Based on this explanation, this study aims to conceptually analyze the Montessori model in relation to the development of the quality of daycare programs at Pocenter Daycare Ponorogo. This analysis is crucial for evaluating the alignment between Montessori's philosophical principles and field practices, and their impact on aspects of daycare quality such as child development, the quality of interactions between educators and children, the provision of learning spaces, and parental participation. Therefore, this study aims to deepen theoretical understanding of the contribution of the Montessori model and provide strategic recommendations for daycare institutions in improving the quality of early childhood education services in a sustainable manner.

## **METHODS**

This research utilized a descriptive qualitative method to conceptually examine how the Montessori Model is applied to enhance the quality of daycare services at the Pocenter Daycare in Ponorogo. This method was selected because it facilitates the investigation of meanings, interpretations, and genuine practices of

Montessori application as they naturally arise in the setting of early childhood education. Information was gathered via direct observation of educational activities and the utilization of Montessori materials in the daycare context to achieve an authentic understanding of the learning environment, interactions between teachers and children, and developmental stimulation methods. Alongside observations, comprehensive interviews were held with teachers and parents to gain insights into their perceptions, experiences, and insights regarding the adoption of the Montessori Model, covering its advantages and difficulties faced during program implementation. Documentation studies were employed to examine teaching modules, daily activity logs, children's portfolios, and photo-video records of learning activities as elements of genuine assessment.

All data were subsequently examined through thematic analysis methods encompassing three phases: data reduction, data presentation, and inductive conclusion drawing, resulting in a detailed conceptual representation of the Montessori approach's impact on multiple aspects of daycare program quality, such as child development, learning quality, teacher proficiency, and the sufficiency of the learning environment. Source triangulation was utilized to guarantee data reliability,

and member checking was performed to uphold the validity of findings in line with established qualitative research methods (Huberman & Miles, 2012; Pahleviannur et al., 2022).

## **RESULT AND DISCUSSION**

### **Implementation of Montessori Activities in Pocenter Playgroups and Their Implications for Child Development**

The Montessori program at Pocenter Daycare reflects a pattern of implementation that aligns with the principles of a planned environment and multisensory learning. Resources such as play trays, sensory tools, manipulative media, and playgrounds are arranged in such a way that children can independently access and engage in repetitive activities that stimulate fine motor skills and hand-eye coordination. Field observations and document collection at Pocenter indicate daily activities that combine spiritual habits, sensory approaches, discussions with concrete objects, and creative activities, a series of activities educators believe can foster order, concentration, and independence in children. These findings align with field research that notes that an organized yet flexible Montessori environment enhances children's attention and independence. Functionally, practical life and sensorial activities at Pocenter, such as stringing beads, moving small

objects, and finger painting, appear to accelerate pre-writing skills and fine motor control, a finding supported by empirical research on the impact of practical life on fine motor development in early childhood.

From a socio-emotional development perspective, interviews with educators and parents at the Pocenter show an increase in children's self-expression, storytelling skills, and initiative in choosing activities, indicators frequently cited in Montessori literature as signs of progress in self-regulation and initiative. Parents stated that shared daily documentation allows them to reflect at home, thus continuing learning stimulation outside of daycare, strengthening the continuity of stimulation between home and the institution. This set of data demonstrates that documentation and communication with parents are crucial elements of quality ECE services because they strengthen the process of learning transfer and monitoring each individual's progress. These Pocenter results align with assessments of Montessori implementation in other childcare contexts that have found positive impacts on socio-emotional aspects when there is integration between institutional practices and parental participation.

Analysis of interactions between educators and children at the Pocenter shows a pattern of teachers' role as advocates: educators tend to observe,

facilitate access to materials, and intervene minimally, allowing children to complete activities independently. This pattern aligns with Montessori principles and impacts the development of children's metacognitive competencies, as they learn to design, select, and complete tasks (Fadillah, 2020). However, the data also indicates differences in competency among educators regarding understanding developmental stages and observation methods, so the effectiveness of facilitation sometimes depends on the experience of each educator. These findings underscore the importance of improving teacher training and supervision to ensure consistent quality, consistent with discussions in the literature highlighting the role of ongoing training in the success of Montessori implementation.

Quantitatively, there are no standard measurements available in this study, referring to the descriptive qualitative design, but qualitative indicators (observations, interviews, portfolio documentation) indicate positive changes in important aspects of child development. This interpretation is supported by recent research showing that Montessori environments are associated with improvements in executive function, attention, and problem-solving skills in preschool children, although the impact is influenced by the quality of implementation

and equity of access to materials (Demangeon et al., 2023; Muhid et al., 2025). Thus, the results from the Pocenter support the argument that sensory workshops and integrated practical life activities can be a key focus in daycare quality improvement strategies.

Finally, fieldwork revealed several practical challenges: a lack of quality tools for all children, the need for more in-depth training for some educators, and challenges in integrating Montessori activities with prayer routines and local themes. However, parental feedback and changes in children's behavior suggest that these challenges can be addressed through increased resources, ongoing training, and the design of teaching modules that connect local values with Montessori principles, a practical option suggested by research on Montessori implementation in similar contexts.

### **Quality of Learning and the Role of Teachers in the Montessori Model**

Findings regarding the assessment of learning quality at Pocenter indicate that portfolio documentation, photographs, activity videos, and teacher observation notes serve as authentic assessment tools, capturing the holistic development of individual children, including cognitive, motor, and social-emotional aspects. The daily documentation provided to parents serves not only as a means of

communication but also as an evaluation tool, enabling reflective collaboration between teachers and parents regarding children's development; this aligns with the formative assessment approach recommended for ECE and is supported by the literature on authentic assessment practices in Montessori settings. These results indicate that assessment at Pocenter is narrative in nature and based on evidence of children's work rather than numerical scores, thus placing greater emphasis on individual developmental progress than on comparisons between children.

Teacher effectiveness plays a crucial role in the quality of execution: interviews and observations reveal that educators who have received Montessori training and participated in sensorial workshops show improved consistency in preparing resources, monitoring children's development, and offering minimal support that encourages self-directed learning. In contrast, educators lacking a complete grasp of Montessori principles often default to rigid or direct teaching approaches, which diminishes the quality of engagement and limits children's chances for exploration. This evidence highlights the significance of ongoing professional development (in-service training) and an evaluable supervision system to ensure consistent Montessori practices in childcare environments. Earlier evaluative research

in Indonesia has similarly highlighted that teacher preparedness is a key factor in the success of the Montessori method (Anisaturrizqi et al., 2025; Irdiyansyah & Putrindi, 2023).

Conversations about teacher workload and teacher-child ratios at Pocenter indicate that suitable ratios enhance personalized support and quality observations; as ratios rise, the effectiveness of facilitation diminishes since teachers have to split their focus. This corresponds with global studies showing that low ratios and staff stability improve developmental results for children in Montessori settings. Strategic recommendations based on these findings involve managing teacher-child ratios and organizing schedules that enable teachers to perform concentrated observation sessions and prepare materials.

The evaluation of learning quality at Pocenter reveals possibilities for enhanced organization, such as incorporating developmental rubrics for particular areas (fine motor skills, language proficiency, emotional regulation), while preserving the personalized aspect of Montessori education. An integrated method employing narrative assessment (portfolio) alongside rubric-based indicators can assist institutions in showcasing quality evidence to stakeholders (parents and educational authorities) while preserving the

personalized focus of Montessori. Research on evaluating educational programs suggests combining qualitative data with standardized metrics for accountability and enhancements in quality (Costa, 2024; Kucirkova et al., 2026).

Finally, the conversation emphasizes that enhancing teacher competence goes beyond solely mastering material utilization techniques; it also requires a shift in pedagogical perspective from viewing the teacher as an instructor to seeing them as a facilitator and observer. Effective training interventions must include aspects of practice reflection, case analysis, and field mentorship to ensure that behavioral changes are ingrained and evident in everyday interactions with children. Research indicates that professional development initiatives that combine theory, practice, and supervision greatly improve the quality of Montessori practices in early childhood education settings

### **The Impact of the Montessori Model on Daycare Program Quality: A Synthesis of Findings and Recommendations for Quality Improvement**

The synthesis of findings indicates that the application of Montessori principles at Pocenter plays a role in improving various dimensions of daycare quality: (1) the quality of the learning

environment (prepared environment), (2) the quality of more supportive teacher-child interactions, (3) the development of fine motor skills and child independence, and (4) strengthening authentic assessment mechanisms through portfolio documentation. The combination of these dimensions creates a more meaningful and personalized learning experience, which ultimately improves child development indicators observed in the field. These findings are in line with empirical research and reviews that evaluate the positive impact of Montessori on aspects of preschool development when implemented with consistency and training support.

However, the study also identified limitations that need to be addressed to strengthen and sustain these positive effects: limitations in quality resources, competency differences among teachers, the need for more structured and documented assessment mechanisms, and challenges in balancing local values (such as religious practices) with Montessori principles. Recommendations for quality improvement include gradual investment in age-appropriate Montessori materials, structured training programs and regular supervision for educators, the development of portfolio-based assessment rubrics, and the integration of local values into Montessori modules to maintain contextual relevance. These recommendations align

with those suggested in research on Montessori implementation in similar daycare settings.

From an organizational policy perspective, the Pocenter could explore academic-practice collaboration models (such as collaborations with education faculties) to develop modular curricula, train preservice teachers, and conduct action research that ensures evidence-based innovation. This type of partnership model has proven successful in various Montessori and sensory training initiatives involving universities, enabling educators to improve their skills and document their field practices for ongoing learning. The collaborative approach also provides opportunities for access to resources, additional training, and external evaluation, which enhances accountability for quality (Novianti et al., 2023). Conceptual analysis and research findings suggest that the Montessori model, when implemented with quality materials, teacher training, and an appropriate assessment system, has significant potential as a strategy for improving the quality of daycare programs. Future research suggests additional quantitative measures (such as pre- and post-motor development tests and executive function measures) and longitudinal studies to evaluate long-term impacts, so that claims of Montessori's contribution to service quality can be

supported by more comprehensive quantitative evidence.

Recent empirical research further bolsters the evidence for Montessori-inspired early childhood education, demonstrating considerable improvements in cognitive, motor, and social-emotional development when executed with fidelity. A 2024 longitudinal study indicated that children participating in public Montessori programs exhibited superior reading skills, executive functioning, working memory, and socio-emotional comprehension at the close of kindergarten relative to those in traditional programs (Lillard et al., 2017). An Indonesian study similarly revealed that regular participation in Montessori practical-life tasks greatly enhanced fine-motor coordination in children aged 4 to 5 years (Bhatia et al., 2015). These results strengthen the observations noted at Pocenter, where the use of multisensory materials, interactive activities, and child-led learning appeared to improve independence, focus, and fine-motor skills. Therefore, the combination of premium materials, organized sensory experiences, and conducive settings is key aspects of the Montessori approach consistently correlates with international studies showcasing quantifiable growth advantages.

Even with these advantages, recent studies highlight that the sustained



effectiveness of Montessori implementation relies significantly on teacher skills, contextual adaptation, and organizational preparedness. Montessori programs work best when educators exhibit excellent observational skills, use minimal-intervention strategies, and uphold consistent classroom routines (Mutmainna et al., 2024). A different study discovered that the connection between Montessori principles and cultural-religious values improves parental acceptance and ensures program sustainability (Fahrudin & Marjuki, 2025). These observations reflect

## CONCLUSION

Research findings indicate that the use of the Montessori model at Daycare Pocenter Ponorogo plays a significant role in improving the quality of the daycare program by providing an organized prepared environment, consistently implementing sensory and practical life activities, and fostering more supportive and independence-focused interaction patterns between educators and children. This implementation has been shown to support children's holistic growth, particularly in fine motor skills, self-regulation, creativity, social-emotional skills, and learning initiatives, reinforced by positive parental feedback and daily progress records. Furthermore, authentic portfolio-based assessments and reflective

the challenges noted at Pocenter, especially the inconsistency in teacher expertise and the necessity to align Montessori methods with local customs like religious practices. Consequently, enhancing regular oversight, incorporating reflective practice in teacher training, and blending local cultural values into Montessori programs are essential actions to maintain both fidelity and contextual significance. These approaches not only improve everyday execution but also contribute to the long-term viability of high-quality Montessori-inspired daycare services.

interactions between teachers and parents enhance learning effectiveness and support continued stimulation between school and home. However, quality improvement still requires ongoing teacher capacity building, standardized developmental evaluations, the availability of sufficient Montessori materials, and the integration of local values with Montessori philosophy to ensure implementation remains appropriate to the institution's socio-cultural context. These research findings confirm that Montessori is not just a teaching method, but rather a comprehensive conceptual approach that can improve the quality of daycare services if implemented consistently and supported by training, supervision, and ongoing quality improvement strategies.

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