

Montessori-Based Learning Management in Developing Early Childhood Independence

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Abstract

Parental awareness in paying attention to child development is an urgency to choose an early childhood education (ECE) institution based on the child's nature. This study has the following objectives: (1) To find out the planning of Montessori-based learning in developing the independence of early childhood, (2) the implementation of Montessori-based learning in developing the independence of early childhood, and (3) the evaluation process of Montessori-based learning in developing the independence of early childhood. The approach of this study is descriptive qualitative, using in-depth interview study techniques, participatory observation, and documentation involving the principal, two teachers, and one parent. This study was conducted at the Tiny Ladybug Education Center in Semarang. The results of the study show that (1) the planning process at the Tiny Ladybug Education Center is carried out by adjusting the needs of children according to their age, (2) Implementation of learning by preparing a structured environment (prepared environment), independent learning activities, and teaching life skills. Evaluation of learning involves schools and parents with the aim of mutual elaboration.

Keywords: Learning management, Early childhood education, Non-formal education



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Introduction

Childhood is a golden age for progress. The best time to improve their motor skills is now. Since the nervous system starts to grow during this time, stimulation will significantly speed up the development of motor skills (Sutapa et al., 2021). This crucial phase for early childhood is also supported by government program directives, specifically the program from the Directorate General of Early Childhood Education and Development in 2014, which is the Child-Friendly Village Development Program (one village, one ECE). Non-formal education is an educational service whose function is partly to replace formal education in order to support the concept of lifelong learning (Hapsari & Shofwan, 2023). Consequently, the community is keen to engage in competitive alternative programs to traditional formal education and is interested in the adoption of non-formal education. In this study, several school quality factors, including management innovation, work ethic, and community, are considered as an integrated system that impacts school quality. School quality will contribute to the success of learners (Cahyani & Riyanto, 2025). (Tamrin, R. (2023) *Manajemen Pembelajaran*. Jejak Publisher; p. 2) Hicks (1972) states that a system consists of interconnected, mutually beneficial, interdependent, and interacting elements, or a unified effort that interacts with each other, or a unified effort consisting of parts that are related to each other, in an effort to achieve unity within a complex environment. Management in non-formal education programs is a crucial aspect of the PAUD (Early Childhood Education) system. Quality assurance of institutional management is ensured through

regular monitoring and evaluation with shared commitment (Suminar et al., 2025). The foundation of Montessori education is the notion that children "learn best by absorbing and interacting with various aspects of their environment, rather than being directly taught specific knowledge and skills." (Ackerman, 2019, p. 2).

In order to stay current and yet meet the demands of children's holistic development, it is imperative that childcare procedures be reviewed (Chalim et al., 2024; Marsh et al., 2015). The foundation of the Montessori teaching approach is the notion that education should enhance a child's innate skills rather than diminish them (Aacharya, 2022). Thus, education should be based on the scientific study of children and an understanding of how learning and development take place (Gentaz & Richard, 2022). Thus, education should be based on the scientific study of children and an understanding of how learning and development take place (Deci & Ryan, 2000) highlights the significance of autonomy, competence, and relatedness in building intrinsic motivation (Tarbiyah et al., 2025)

In this case, it is hoped that Tiny Ladybug Education Center will be able to implement effective learning management to develop the independence of early childhood, in line with the increasing attention to improving the quality of early childhood education in Indonesia through a child-centered curriculum and a holistic learning approach, in which Montessori places children as active subjects who emphasize independence through direct experience, decision making, and independent exploration (Cholid et al., 2025), and reinforced by Permendikbud No. 137 of 2014 concerning child-based education and data from the Ministry of Education, Culture, Research, and Technology (2024) which shows that around 40% of (ECE) institutions in urban areas have adopted Montessori elements in response to the need for adaptive learning management in the digital era. (Osgood & Mohandas, 2022): Montessori 2008) Montessori's observations of children's annoyance at being offered needless assistance and their insistence on accomplishing things on their own led to the creation of the "Practical Life" curriculum. The Montessori curriculum, which is based on sensory exploration, provides opportunities for children to develop skills, hand-eye coordination, and problem-solving abilities through real-life experiences.

(Etokabeka, 2025):Van Rensburg 2015) emphasizes that a preschool's main objective should be to help kids acquire the abilities they'll need to succeed in school. Tiny Ladybug Education Center, as an early childhood education institution with an eclectic curriculum that combines the best elements of various educational methods

Metode

This research was conducted at Tiny Ladybug Education Center, Semarang. The location of this research was at Tiny Ladybug Education Center, located at UTC Hall E Building, Jalan Kelud Raya no.2, Gajahmungkur, Semarang, Central Java. This research was assisted by the principal, two teachers as observers, and parents who benefited from their children's educational success. The method used in this research was a qualitative approach with observation study techniques using in-depth interview study techniques, participatory observation, and documentation. According to (Sugiyono 2018) when conducting in-depth interviews, in addition to using instruments as a guide, tools such as voice recorders and notes are also used.

During the reflection stage, observations and evaluations are systematically analyzed to assess the effectiveness of Montessori-based learning management in developing independence in early childhood. Reflection is carried out on the learning cycle to identify strengths and weaknesses in planning, implementation, and evaluation. Teachers play a strong supporting role in encouraging students' willingness to develop and facilitating practical activities in which each student acts as a creator or innovator. Teachers provide encouraging feedback to help students grow (Morris & Rohs, 2023). The evaluation of children's independence development is through systematic observation of children's behavior during learning activities, These capacities were thus assessed based on the

performance on various tests that allow for the evaluation of knowledge of basic skills (Guerrero et al., 2024).

Results and Discussions

1. Results

a. Autonomy

Research results show significant development in children's autonomy after participating in learning at Tiny Ladybug. Children are not only able to take initiative in daily activities, but also demonstrate mature self-regulation skills for their age. Thus, these abilities were evaluated based on how well they performed on a variety of tests that enable the assessment of basic skill knowledge (Obee et al., 2023). These findings indicate that the Montessori learning strategy, which emphasizes self-regulation and emotional awareness, has been internalized and consistently applied in the home environment. Therefore, there are reasons to think that Montessori preschool instruction may produce better social, cognitive, and academic results than traditional education for young children (Courtier et al., 2021)

b. Competence

In terms of competence, Students had multiple options for what, when, with whom, how, and where they learned, and they could take charge of their education (Kersna et al., 2025). This allows kids to select their own activities and areas to explore. Children not only enjoy new experiences, but also show a desire to repeat them, which reflects a sense of competence and intrinsic motivation. Children's curiosity also develops strongly, marked by their ability to ask deep and repeated questions until they feel they have obtained sufficient information. Nature supports children's competence.

c. Relatedness

In aspects social relationships, children show openness in sharing their social experiences at school, both pleasant and unpleasant. Their ability to resolve minor conflicts has also developed, as demonstrated by their strategies of avoidance, emotional control, and acceptance of explanations about their friends who are still learning to interact. Moreover, it has been reported that social interaction and collaboration are important components of learning (Alotaibi, 2024). The child's empathy and social awareness are evident in various situations, such as helping friends who have difficulty carrying items and being willing to donate their personal clothing to disaster victims, even though the child previously tended to be protective of their belongings. These findings indicate a shift from egocentrism to social awareness, influenced by the inculcation of empathy at home, school, and the surrounding environment.

2. Discussions

Research on school quality is associated with management innovation, school ethos, and community involvement as an integrated system (Cahyani, Arbarini, & Mulyono, 2025). Parents receive comprehensive observation reports covering cognitive, social, and emotional aspects, as well as the challenges children face in project activities. Two-way communication between schools and parents allows for the alignment of stimulation between home and school. Service quality will determine the success of a program by looking at the enthusiasm of the community (Artha et al., 2022). The Montessori approach to education places a strong emphasis on helping kids develop their abilities and potential on their own, organically. Applying the Montessori approach to learning can improve the independent character of early childhood (Loka & Listiana, 2023).

According to (Cahyani, Arbarini, & Suminar, 2025) It is able to create a learning community, which ultimately increases independence and innovation in seeking new information to improve the quality of life of children. Increased self-confidence, courage to try new experiences,

and a high level of curiosity. The freedom to choose activities and the opportunity to explore in Montessori learning encourages intrinsic motivation and reflective thinking skills. Continuous collaboration between schools and the family environment plays an important role in building a sense of belonging, thereby supporting the holistic development of children's independence in accordance with the principles of Montessori learning. Student enthusiasm increased significantly when exploratory media began to be used. Media that stimulated the sense of touch and were brightly colored seemed to attract students' interest. Students eagerly approached the learning boxes.



Picture 1. learning media tools.

(Fitriyanti et al., 2018):(Susanto, 2011) social skills are the ability to adjust socially, enabling children to interact with their peers. In social relationships, children experience development in their ability to interact, express feelings, resolve simple conflicts, and show empathy and concern for others. An approach that emphasizes the use of formative evaluation is important in effective early childhood education. These changes in social behavior are reinforced through consistent and transparent communication between the school and parents through progress reports and regular observations.



Picture 2. students explore using sensory play media.

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The school conducts evaluations at the end of each lesson, and teachers provide regular feedback to children about their progress, helping them identify areas where they can improve and plan appropriate learning based on their individual needs (Helandri et al., 2024).

Conclusion

In conclusion, this study proves that Montessori-based learning management at the Tiny Ladybug Education Center effectively encourages independence in early childhood through well-structured planning, child-centered implementation, and collaborative evaluation. Learning activities are designed according to children's developmental stages, supported by a prepared environment, independent exploration, and practical life experiences that encourage independence, competence, and social connectedness. Continuous evaluation involving teachers and parents reinforces consistency between school and home, contributing to the development of self-regulation, intrinsic motivation, curiosity, social skills, and empathy. Overall, Montessori-based learning management in non-formal early childhood education settings plays a vital role in supporting children's holistic development of independence during their critical early years.

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