

Montessori Method in Character Education: Analysis of the Effectiveness of the Montessori Method in Character Education in Early Childhood Education

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Abstract. Character education for early childhood is intended to instill moral values that are useful in successful learning at the next level of education and become good habits when they are adults. Character that has been formed from an early age will affect the appreciation and practice throughout children life. In educational practice of early childhood education, however, the learning methods used are often less focused on developing character education than the development of cognitive academic abilities. As a result, early childhood education produces students who have high cognitive abilities but are not balanced with good character. This study aims to describe and test the effectiveness of Montessori method in character education in early childhood education using descriptive research method. The objects are teachers at early childhood education institutions involving 112 respondents. The results show that Montessori Method-based learning that emphasizes the importance of independence and self-improvement activities in building life skills to improve students' intellectual abilities has proven effective in early childhood character education.

Key words: Montessori method, early childhood education, character education

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INTRODUCTION

Character education in early childhood education aims to shape children personality so that they can become human beings with good character who always try to do the best for God, others, the environment, and the nation by optimizing their potentials accompanied by awareness, emotion, motivation, and behavior (Muassomah et al., 2020). This is because the progress of a nation is not only determined by abundant natural resources but also by individuals with superior character. Therefore, character education in schools is a system of teaching character values to school members, including components of knowledge, awareness or will, and actions to apply these values (Zurqoni et al., 2018).

Good character will make students become individuals who are able to respect others and live in a diverse society. Character education is chosen as an effort to realize the character formation of students or generations of noble character (Abdullah et al., 2019). Character education must be carried out from an early age. Character education from an early age is very decisive for individuals to become the next generation of noble character. Character education for early childhood is intended to instill moral values that are useful in successful

learning at the next level of education and become good habits when they are adults. Character that has been formed from an early age will affect the appreciation and practice of character throughout children life. Khaironi (2016) states that the stimulation which optimizes 6 aspects of early childhood development which consists of religious and moral values, physical motor, social emotional, cognitive, language, and art in early childhood education will affect children's development throughout their lives.

In the practice of early childhood education, there are several findings that can become obstacles in character education. They are: education that focuses more on the cognitive domain rather than character development, teacher centers, and lack of teachers' understanding in implementing character education in the teaching and learning process (Koesoema, 2018; Setiawan, 2013; Kosim, 2011). Therefore, a learning approach that can integrate teaching and learning processes that are balanced between character development and cognitive development is needed. Montessori Method-based learning has been widely applied by educational institutions, both at the early childhood education and primary education levels and has proven effective in increasing

student academic achievement. However, the research on the effectiveness of Montessori Method-based learning in the context of character education at the early childhood education level is still very few. These problems prompted researchers to develop a learning model based on the Montessori method for teachers. This study is expected to guide teachers in the teaching and learning process with balanced attention between character development and cognitive development.

Character Education in Early Childhood

Character education involves aspects of knowledge, feelings, and actions. The formation of children character does not occur spontaneously and quickly, but requires a process according to the developmental phase that must be passed and experienced. This development phase underlies the importance of character education from an early age because early age is a golden period (age 0-6 years) in character education. At an early age, mental development takes place very quickly so that it is easier to shape children character as they absorb behavior and the surrounding environment more quickly (Zubaedi, 2017).

Early age is referred to as a critical and sensitive period that will determine the attitudes, values, and behaviors of children in the future. During this critical period, potentials, tendencies and sensitivities will be actualized if the right stimulus is received. On the other hand, if this period is missed, external influences will not be beneficial for the formation of children character. Critical and sensitive period in children is related to brain development. At an early age, brain growth has not yet developed optimally, so that the right stimulation will have an impact on optimal brain growth. Therefore, character education from an early age is absolutely necessary. When children grow up, it will be difficult to change their character, because the period for the formation of the fastest brain structures has passed. According to Montessori, every character defect is caused by certain mistreatment that children experience during the first years of their lives (Montessori, 2017).

Character education is essentially a value education which involves aspects of knowledge, feelings, and actions (Kirschenbaum, 2000; Goleman, 2001). Lickona puts forward two main values that represent the main moral foundations that apply universally, namely respect and

responsibility. In addition to these two, honesty, fairness, tolerance, wisdom, self-discipline, mutual help, caring for others, cooperation, courage, and democratic attitude must be taught in schools (Lickona, 2016).

In general, there are four main principles for developing character education in educational institutions (Hasan, 2010). They are: 1) Continuous, the development of character education in educational institutions must be carried out continuously at every level; 2) Through all subjects/all aspects of development, self-development, and school culture; 3) Development of values that are not assessed like ordinary teaching materials; and 4) The educational process that is carried out by students in an active and fun way. However, in line with the principles of early childhood education institutions, there are seven principles of character education that educators and institutions must implement, namely: 1) Through example; 2) Performed on an ongoing basis; 3) Comprehensive, integrated in all aspects of development; 4) Creating an atmosphere of affection; 5) Motivate children actively; 6) Involve educators and education staff, parents, and the community; and 7) Having an assessment.

Montessori Method

The Montessori method is an educational system developed by Maria Montessori in 1907 which emphasizes the importance of freedom and self-correction activities in developing and enhancing students' intellectual intelligence (Lillard et al., 2017). The main feature of Montessori method is to make the children the center of learning and the emphasis on the environment is called a ready-to-use environment. According to Montessori, a child is the master of actions and practices (Lillard, 2021). The teacher only acts as an observer of the work and development of children, organizers of learning space and equipment, and facilitators. Meanwhile, a ready-to-use environment is an environment that is deliberately prepared to meet all the needs of children (Fleming et al., 2019).

Montessori defined school as a prepared environment in which students are free from adult intervention and can develop according to the laws of development. Montessori method emphasizes that sensing, life practices, and basic skills must be part of the learning environment for the classroom to function effectively

(Denervaud et al., 2019). Montessori method-based learning emphasizes the importance of freedom because only in a free climate children can show themselves. In addition, the key to optimal development is freedom. Maria Montessori stated that true freedom is a consequence of development. Children are exposed to the right environment and allowed to respond individually to the environment freely.

Learning environment must be created in a conducive atmosphere that allows children to act freely and develop themselves. Montessori felt that freedom in this modified environment was essential for physical, mental and spiritual development of children. Furthermore, through freedom in the Montessori classroom, children will have unique opportunities for their own actions (Mavric, 2020). They will realize all the consequences of what children do to themselves and others. The opportunity to develop self-knowledge is an important result of the freedom created in the Montessori classroom.

The structure and order of the universe must be reflected in the Montessori classroom. For example, children could know where to find the toys they want through regularity. Therefore, a plan is needed to design the placement of toys according to a classification based on a certain regularity and according to the children developmental level. For example, toys are placed on a low shelf so that it can be accessed by children, neatly and orderly according to its category. Classrooms are arranged in such a way with full order. Thus the children will internalize it and in the end build their own mentality and intelligence in a well designed environment.

The Montessori educational environment is based on realistic and natural principles adapted to the children size. Children must have the opportunity to internalize natural and realistic limitations in order to free them from fantasies or illusions, whether physical or psychological. According to Montessori, fantasy is a product of the mind that has lost its attachment to reality. The toys and environment in Montessori classroom are based on realistic concepts (Janssen et al., 2021). For example, children are confronted with a real telephone, a real glass, an iron, a knife and so on. They are real objects in a size suitable for children. Montessori classrooms need to be tidy and spacious to allow for child mobility. Everything in the classroom should be designed according to the child developmental level. The color theme should convey joy. The atmosphere of the room should be relaxed and

warm so that it invites children to participate actively and freely.

Montessori stated that the first important thing in a child's development is concentration. Children have to find ways to concentrate, therefore they need objects that can make students concentrate. Schools need to provide facilities where children can find activities that allow them to concentrate. Playing with objects or tools should help the children internal formation (Marks, 2016). Therefore, objects or toys shall match their internal needs. Toys shall be presented or given in situations after child development.

The Montessori method is proven to be used to instill character values in students. The results of Nasution's research (2017) showed that Montessori Method can improve discipline, independence, and self-confidence. Study by Ningsih, et al (2021) also showed that the application of Montessori Method is able to form a disciplined, independent and responsible character in early childhood. This can be seen from the children developing very well in arranging their own shoes, queuing to wash their hands, returning toys, keeping the classroom clean and disposing of trash in its place.

Another study conducted by Fitriawan (2016) showed that local wisdom values need to be internalized through the principles of Montessori education so that they can form good children character. Montessori method which is applied to aspects of spiritual development shows the results of positive developments in the spiritual aspects of children in terms of: being able to love God's creation, being accustomed to behaving politely, respecting each other, having empathy, enjoying the beauty of nature, and having a sense of security.

Apparently, Montessori method can also be combined with Islamic concepts in building children's character. Adisti's research (2016) proved that there are five concepts in the Montessori method that can be integrated into the theory of teaching children in the Koran and al-Hadith, namely: The concept of freedom with the concept of "nature"; Structure with step by step concept; Reality and nature with the concept of loving nature and living things, beauty and nuance are in line with the Islamic concept of cleanliness and beauty; and Montessori materials with the concept of life learning processes. The results of the combination of these values can build good character for children, especially making them religious people with good

attitudes for their future.

METHOD

This research was a quantitative research using descriptive method. According to Creswell (2003), quantitative research is research that is more in-depth with problems based on efforts to test existing theories, namely research variables, values in the form of numbers, statistical analysis to generalize that theory is true or false. According to Sujana & Ibrahim (2004), descriptive method is a method that describes an event that is happening.

The data analysis technique used was descriptive categorization and inferential statistics. The samples were 112 early childhood education teachers worked in kindergartens throughout Panongan District, Tangerang Regency. This study used Simple Random Sampling (Purwanto, 2016). The instruments used were questionnaires and evaluation test questions.

RESULTS AND DISCUSSION

The results of the questionnaire obtained by the researcher is as follow.

Education focuses more on the cognitive domain

Cognitive is all mental activity that allows individuals to relate, assess, and consider an event, so that individuals gain knowledge afterwards. Cognitive is very closely related to the level of one's intelligence. Cognitive examples can be shown when someone is learning, building ideas, and solving problems. Education focuses more on the cognitive domain.

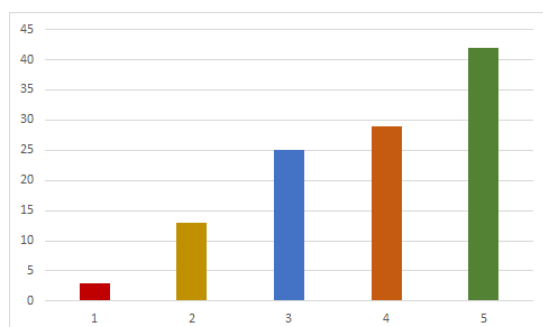


Figure 1. Education focuses more on the cognitive domain

Figure 1 shows that there are varied differences of opinion in response that education in schools currently focuses more on the cognitive domain. There are more than 30% of teachers who feel that education focuses more on

the cognitive domain than character development (63.4%). This is in line with the opinion that education is currently more concerned with achieving academic competence than achieving character competence (Koesoema, 2018; Setiawan, 2013; Kosim, 2011). In other words, the cognitive domain is still the main concern of schools compared to the process of developing student character values.

Thematic learning materials

From the results of the questionnaire, it is known that the material currently being taught is thematically integrated in the development of 6 aspects of early childhood education. The thematic learning process provides a fun and relevant learning process for early childhood, so that the learning process can be integrated with character education (Santoso, 2014). Learning activities that have a theme in each activity have an important role to increase students' desire to learn, thus increasing the learning process more effectively.

A study by Khaironi (2018) stated that 6 aspects of early childhood development do not only occur at an early age, but will continue throughout their life span. The stimulation provided to optimize these developments at an early age will affect development during childhood and throughout their life. The results of the questionnaire also showed that teachers strongly agree that character education should be integrated into 6 aspects of child development in early childhood education.

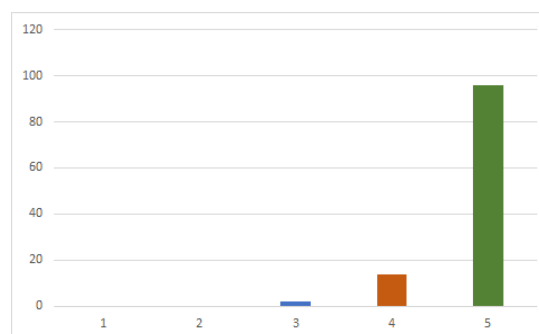


Figure 2. Character education should be integrated into 6 aspects of child development in early childhood education.

Integration is the key to the success of the learning process for early childhood, so that there are cognitive and affective aspects that can be integrated to form an effective learning process, so that learning objectives can be achieved optimally. The learning process that integrates learning activities with play will

produce a learning goal that can be achieved with a curriculum that has been prepared appropriately. The learning process carried out in early childhood focuses on children's behavior.

Teachers' understanding of the responsibility of character education

Teachers' understanding of character education is a manifestation of the four competencies that must be possessed by the teachers. Basically, character education aims to improve the quality of implementation and educational outcomes which lead to the achievement of the formation of character or noble character of students as a whole, integrated and balanced, according to graduate competency standards. The results of a survey of teachers' understanding of the responsibilities of character education can be seen as follows.

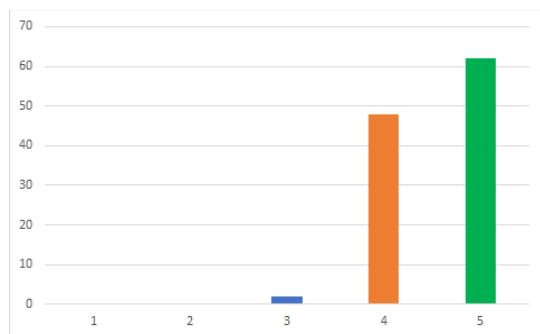


Figure 3. Teachers' understanding of the importance of character education

Figure 3 showed that most teachers agree on the importance of character education in early children education. These results also proved that the government program that proclaims the urgency of character education in schools has been understood by teachers, especially early children education teachers. By understanding the purpose of character education, teachers will be able to instill it correctly and using the right methods to be able to build character and high moral values. This is confirmed by Cooley (2008) that character values can be learned and taught through appropriate pedagogy. Furthermore, Pike (2010) and Skaggs & Bodenhorn (2006) explained that the influence of instilling character values can improve personal qualities such as being a person who can be trusted, has integrity, high-spirited, tough, persistent, mutual respect, being fair, and be responsible.

The implementation of character education

Implementation of character education aims

to enable students to independently improve and use their knowledge, study, internalize and personalize character values and noble character so that they are manifested in daily behavior. The results of survey related to the implementation of character education in schools can be seen as follow.

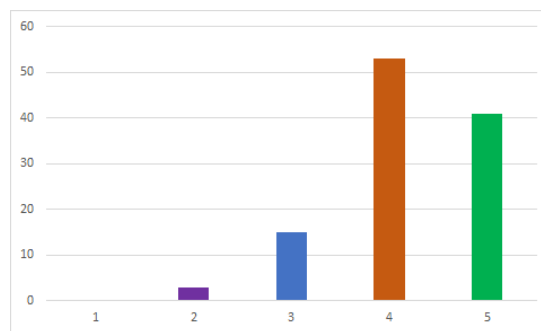


Figure 4. The implementation of character education

Figure 4 showed that some schools are still not able to carry out character education optimally. This can be seen from the attitude statements of a small number of teachers (16.1%) who stated that they did not agree that the implementation of character education in schools had gone well.

Sustainable character education

Implementation of character education from an early age will be able to lead children to become mature in processing their emotions. This is one of the efforts to help children develop optimally (Yulianti, 2010). Early childhood education is education in achieving the optimization of all aspects of development, both physical and psychological development, which includes intellectual, language, motor, and social-emotional development. In addition, inculcation of character education should be in accordance with the age level of children development using methods of understanding, feeling and action (Mareta, 2017). In the implication, there must be differences in the way of teaching and the depth of character education between K-1 and K-2. The results of survey of the teachers' perception of sustainable character education is obtained as follows.

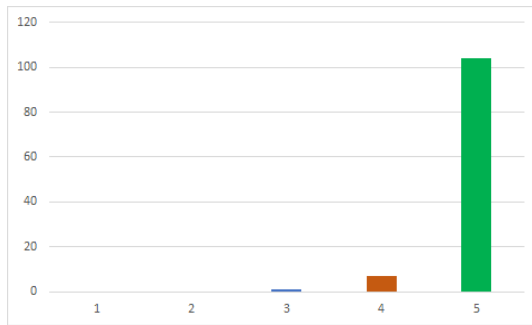


Figure 5. The implementation of character education in early childhood education should be sustainable

The results above showed that character education has a continuous process. The process of character education is an aspect of development aimed at forming the mental and moral aspects of students so that they can place themselves in an environment and behave appropriately. The process of character education that is carried out continuously is intended to form the inculcation of values that do not only stop at a certain level. The ongoing process of internalizing character education will facilitate the formation of children's behavior due to the ongoing intensity of character education (Wiguna & Sunariyadi, 2021).

Character education activities carried out on an ongoing basis will form a repetition of

learning which will make it easier to translate as children behavior. Early Childhood Education does not only emphasize cognitive abilities that show students' intelligence but emphasizes more on how children behave at certain times.

Furthermore, the effectiveness of Montessori method will be presented in character education in early childhood education. To find out the effectiveness of Montessori method in character education in early childhood education, 31 teachers of early childhood education in Tangerang District were tested as objects using quasi-experiment, namely one group pretest posttest design.

(One Group Pre-test Post-test Design)

X1 - - - - O - - - - X2

Description:

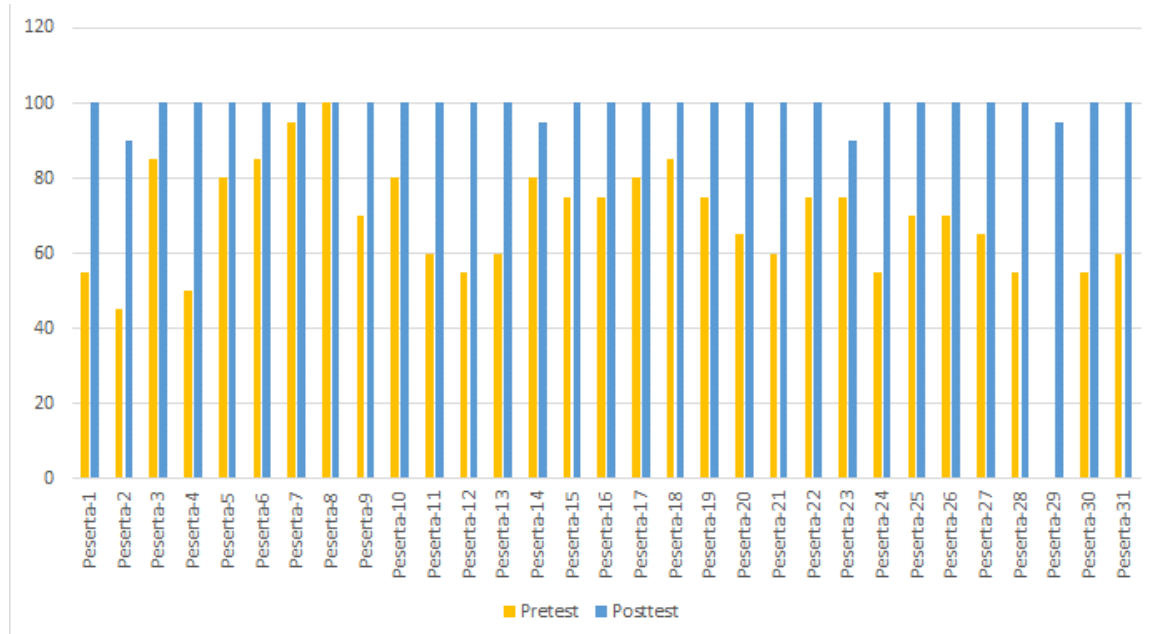
X1 : Pre-test (Character Education Learning Management based on the Montessori method in ECE)

O : Treatment

X2 : Post-test (Character Education Learning Management based on the Montessori method in ECE)

The following graph shows the pretest and posttest results of limited trial participants.

The Results of Pre-test and Post-test



Graph 7. The results of Pre-test dan Post-test

To test the effectiveness of the Montessori method, a non-parametric test was used, namely

the Wilcoxon test. This test aimed to compare the pretest and posttest results of early childhood

education teachers. The hypothesis for the Wilcoxon Test is:

H_0 : There is no difference between the teachers' pretest and posttest regarding the application of the Montessori Method in character education in Early Childhood Education.

H_1 : There is a difference between the teachers' pretest and posttest regarding the application of the Montessori Method in character education in Early Childhood

Education.

The analysis results obtained were then compared with the significance obtained with the 5% test criterion. If $\text{Sig} < \alpha$, then H_0 is rejected and H_1 is accepted, meaning that there are differences in the results of the teachers' pretest and posttest regarding the application of the Montessori Method in character education of early childhood education. The results of data processing using the Wilcoxon test through the SPSS program can be seen as follow:

Table 1. The Results of Wilcoxon Test

Ranks		N	Mean Rank	Sum of Ranks
Pretest - Posttest	Negative Ranks	30a	15.50	465.00
	Positive Ranks	0b	.00	.00
	Ties	1c		
	Total	31		
a. Pretest < Posttest				
b. Pretest > Posttest				
c. Pretest = Posttest				
Test Statistics ^a		Pretest - Posttest		
Z		-4.793b		
Asymp. Sig. (2-tailed)		.000		
a. Wilcoxon Signed Ranks Test				
b. Based on positive ranks.				

From the SPSS test results, the significance value of the application of Montessori method in character education in early childhood education was $= 0.000 < \alpha$. This means that H_0 is rejected and H_1 is accepted, meaning that there is a difference between the results of the teachers' pretest and posttest regarding the application of Montessori method in character education in early childhood education. The results of the analysis showed that Montessori Method-Based Learning Model in early childhood education has proven to be effective. This means that the Montessori Method-Based Learning Model is appropriate for early childhood education institutions to implement character education.

CONCLUSION

The results of the study prove that Montessori method-based approach in character education has a significant effect on the development of students' personalities. The results of trials using Montessori Method in character education in early childhood education by teachers are proved to be very helpful and effective in developing children's character.

Students' ability to understand their environment and respond to actions is based on their character learning. The application of character education based on Montessori Method will produce students with a better level of honesty, discipline, respect and responsibility.

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