



Implementation of Reading, Write and Counting Learning Using the Montessori Method in Early Children

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ABSTRACT:

The research results show that the Montessori approach is effective in increasing the interest and ability of young children in learning Calistung. Children seem more independent and able to learn at their own pace. Teachers act as facilitators who guide children when needed, but most children carry out learning activities independently. The use of props such as sandpaper letters and number rods helps children develop a deeper understanding of letters and numbers. The Montessori method is an educational approach that emphasizes children's independence in the learning process, and provides opportunities for young children to learn at their own pace and interests. In the context of learning to read, write and count for early childhood, this method integrates the use of teaching aids specifically designed to support children's cognitive, motor and sensory development. The following is the implementation of Calistung learning using the Montessori method at the Radantha Montessori Pekanbaru tutoring, namely creating a structured environment, using interesting teaching aids, individual approaches and independent learning, learning through exploration and direct experience, holistic learning, and evaluating children's progress. Montessori emphasized that each child has a different learning style, and therefore, Calistung learning is done individually. Children are given the freedom to choose teaching aids that are appropriate to their level of development, so that they can learn to read, write and count in the most effective way for them. The teacher acts as a facilitator who observes the child's development and provides guidance if necessary, but does not force certain learning methods.

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1. Introduction

Early childhood education is a crucial period in the formation of children's basic character and abilities. At this age, children begin to get to know the world through play activities and interaction with the surrounding environment. One of the important aspects that must be developed is the ability to read and write numeracy (Calistung) because it is the main foundation for the next stage of education. Montessori, introduced by Maria Montessori in the early 20th century, offers a learning method that emphasizes the freedom of children to choose their own learning activities according to their interests and needs (Montessori, 1912:10). The Montessori method is a method developed by Maria Montessori that introduces educational strategies that include training the five senses and motor skills of children, with special props in the child's home environment. Maria Montessori argues that if children are given the right materials and exercises, children tend to be able to do activities spontaneously. (Elizabeth G. Hainstock, 2008: 11)

The Montessori method is based on the principle that a child's education must emerge and coincide with the stages of the child's own development. The characteristics of this method are emphasizing the activities raised by the child and emphasizing the adjustment of the child's learning environment at the stage of development. (Agus

Sumitra, 2014). The main goal of Montessori education is to prepare children for the next task of life development by emphasizing the normal and maximum process of child development. Montessori education is based on natural conditions, brain absorption and spontaneous development of children's sensitive periods to support physical and psychological development and direct children to be healthy and free. (Elizabeth G. Hainstock, 2008: 11). According to Montessori, freedom in a modified environment is very important for the physical, mental, and spiritual development of children. This freedom aims so that when the time comes to be sensitive to an ability that encourages to practice a function, the child will practice as he pleases. The learning environment must be created in a conducive atmosphere that provides opportunities for children to act freely and develop their potential. (Anita Yus, 2011: 16)

The advantages of the Montessori Method are: 1) From the point of view of psychiatry, Montessori teaches that there is a sensitive period in each child. Child development must be observed and teaching must be adjusted to child development. 2) From the perspective of Montessori education, it is emphasized that every education is self-education. So Montessori uses the freedom and activeness of children to develop the talents and nature that children have from birth. Children have their own nature so that children have other uniqueness compared to others. 3) From the point of view of teaching In the world of teaching in general, Montessori is considered a pioneer in the formulation of child-centered educational fundamentals. In accordance with the onset of the sensitive period, Montessori uses the child's spontaneous interest and activeness in his teaching. (Indah Fajarwati, 2014 : 47)

Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 137 of 2014, which describes the Standards for the Level of Child Development Achievement (STPPA) in the scope of language development. Some indicators that must be developed by children include children being able to recognize symbols to prepare for reading, writing and counting (Regulation of the Minister of Education and Culture of the Republic of Indonesia No. 137 of 2014 concerning National Standards for Early Childhood Education). Based on the STPPA, Calistung is one of the Child Development Achievement Level Standards (STPPA) that must be achieved by children aged 5-6 years before continuing their education to the next level. Early childhood is a child who is at the age from birth to the age of 6 years (Helmawati, 2015: 43). In another sense, early childhood is a group of children who are in a unique process of growth and development, in the sense of having a pattern of growth and development (fine and gross motor coordination), intelligence (thinking, creativity, emotional intelligence and spiritual intelligence), social-emotional (attitudes and behaviors and religion), language and communication that are special according to the level of growth and development of children. (Mansyur, 2009: 87) This shows that calistung learning in early childhood has been integrated into the standard of child development achievement level, but in the basic concept.

The problem of reading, writing, and counting is a phenomenon in itself. This phenomenon is increasingly hotly discussed by parents who have early childhood because they are worried that their children will not be able to follow lessons at school if they have not been equipped with calistung skills from the beginning. For example, to be accepted in elementary school, children are expected to be able to copy writing from the blackboard using concatenated letters. In addition, they must also be able to understand written instructions and write what is dictated by the teacher. The weight is that even the writing must not cross the line of the book. Because of these demands, finally many kindergartens independently strive to learn to read for their students. Various teaching methods are practiced, with the hope that it can help children to master reading and writing skills before entering elementary school. (Mustakim et al., 2022: 37). It is not surprising that the average parent and PAUD unit in Indonesia wants the implementation of calistung for early childhood, in order to prepare prospective children to face a higher level of education.

Such high demands are often a dilemma for educators and parents. On the one hand, they understand that early childhood is still in a stage where they can enjoy the freedom to play. On the other hand, they must be prepared to meet what is required in elementary school. Unfortunately, to meet these demands, not a few educators and parents cram children with various worksheets every day from an early age. Worksheets can be given to children, but they need to be balanced with typical early childhood activities, namely play. However, the reality on the ground is that Calistung learning in early childhood has reaped controversy among the community. Several social media and mass media have spread issues related to the lack of calistung learning applied to early childhood because it can have a bad impact on children's mentality. (Endro Yuwanto, 2018 : 11) The difference in the definition of learning is the root of the problem in learning anything, including learning calistung. Over the years, learning has become a term that represents such a serious, mind-draining and concentrated activity. Therefore, games and singing are not said to be 'learning' even though the content of games and singing may be science. (Rahmah Muthia, 2018 : 26)

Calistung learning activities themselves are defined as activities that require a structured way of thinking so that they are not suitable to be taught to kindergarten children who are still toddlers. The message captured from Piaget's theory often stops at —the prohibition of learning calistung, but not many people understand why. In fact, developments in today's information age have actually changed further. The topic of the lesson is not a problem that

will hinder a person, at any age learning it. The condition is only to change the way of learning, adjusted to the tendencies of learning styles and each age so that it feels fun and arouses interest in continuing to learn.

Tabel 1.1 Calistung Indicator

| KD | Indicators of achievement of children aged 4-5 years | |
|--|---|--|
| | Age 4–5 years | Age 5–6 years |
| 3.10. Understanding Resepthic Language (Listening and Reading) | Retelling what you hear with a limited vocabulary | Retelling what you hear with more vocabulary |
| 3.12. Getting to know early literacy through play | Writing exemplified letters by imitating | Showing the shape of the shape of the symbol (pre-written) |
| 4.12 Demonstrate early literacy abilities in various forms of work | 1. Counting many objects from one to ten 2. Knowing the concept of numbers 3. Knowing the symbols of numbers 4. Getting to know the symbol of letters. | 1. Mention the symbols of numbers 1-10 2. Use symbols of numbers to calculate 3. Match numbers with symbols of numbers 4. Recognize various kinds of symbols, vowels, and consonants 5. Represent various kinds of objects in the form of drawings or writing (there are pencil objects followed by writing and pencil drawings) |

According to Istayani (Ghinta Wulansuci, 2019: 44) the application of calistung learning is applied to early childhood because it can have a bad impact on children's mentality, namely academic stress. Academic stress is a condition or condition in the form of physical, mental or emotional disorders caused by a mismatch between the demands of the environment and the abilities possessed. Calistung learning includes three main components: reading, writing, and numeracy skills. According to Piaget (1973: 67), early childhood is in the concrete operational stage, where they begin to learn to associate symbols with real objects. The Montessori approach in Calistung learning uses sensory materials such as sandpaper letters (rough letters) to help children recognize the shapes of letters and numbers tactilely (Hainstock, 1997: 34). According to the author's interview with the owner of Bimbel Radantha Montessori (MR), it turns out that this Montessori method is very helpful in learning calistung for early childhood, where children learn calistung combined with fun games so that children are not stressed.

Early childhood learns to control and coordinate eye and muscle movements in fine motor activities. Cognitive development will increase along with the mastery of various fine motor skills by children. When children learn new fine motor skills, they learn to combine various skills that have been mastered before. (Dewi Hendraningrat, Pujiyanti Fauziah, 2022: 59). Fine motor skills of children aged 3-4 years include being able to draw straight lines and zigzags, draw circles and square squares, (Papalia, D.E., Olds, S.W., Feldman, 2007). They have also been able to pick up the smallest objects using the thumb and index finger for some time despite still feeling doubtful (Santrock, 2007). A three-year-old can build a tower out of beams but not completely in a straight line. Games such as simple dismantling are also carried out even though sometimes it seems forced to fit strongly. These fine motor skills will be more mature when the child is four years old.

According to one of the parents of children who put their children in the radantha tutoring with the initials LL, the reason why LL put their children in the radantha tutoring so that their children can read, write, and count with the Montessori method, which according to him after seeing this method makes him believe that the Montessori method does not make children stressed in learning calistung.

Table 1.2 Early Childhood Data Tutored at Radantha Montessori Pekanbaru

| Name | Age | Information |
|---------|-----|-------------|
| Anak S | 5th | BSH |
| Anak Z | 4th | BSH |
| Anak A | 4th | BSH |
| Anak ZA | 4TH | MB |
| Anak L | 4th | BSH |
| Anak AL | 4th | MB |
| Anak AB | 4th | MB |

In this study, the author took a sample of early childhood who had studied in tutoring at Radantha Montessori where there were 7 children aged 4-5 years. Description of development achievements: 1. BB means, Not Developed, 2. MB means, Starting to Develop, 3. BSH means, Developing as expected, 4. BSB means, Developing Very Good. Based on the background that has been presented, the researcher wants to find out more about the implementation of numeracy learning (calistung) with the Montessori method in early childhood in the Radantha Montessori Pekanbaru tutoring.

2. Method

This study uses a qualitative method with a descriptive research approach. The data collected describes the results that occur and are observed in the field. According to Moleong, (Moleong, 2012) said that qualitative research is a research that can produce data in the form of writing or text based on the observed events. Corresponding to that (Sugiyono, 2016), it is explained that descriptive research is a research that is used to describe, describe, and explain the circumstances that occur. The researcher observes events, phenomena, actions, and behaviors of the research object consisting of everything related to the Radantha Montessori Bimbel. From the data obtained, the data is then described or described in the form of text that is in accordance with the findings that exist and occur in the field. This study uses a sampling technique, namely purpose sampling which aims to find out information and conditions regarding the identification of the process of implementing numeracy and literacy learning (calistung) with the Montessori method in early childhood in Radantha Montessori tutoring naturally by triangulation of data sources with respondents whose data were taken, namely Mrs. Miranda Ranudantha, Tutor Radantha Montessori and Parents of Children. From the data obtained, triangulation of data sources is carried out from the perspective of others or based on the results of existing observations and documentation. At the observation stage, researchers came to the research site to directly observe the activities that occurred at Bimbel Radantha Montessori. Then, for in-depth interviews, the researcher conducted interviews with the research subjects, namely Mrs. Miranda Ranudantha, the owner of Radantha Montessori Tutor, Radantha Montessori Tutor and Children's Parents. This interview was conducted to obtain in-depth information about the implementation of numeracy learning (calistung) with the Montessori method in early childhood. In addition to observation and interviews, the researcher collected data from documentation as a complement to the triangulation of data sources. The data obtained by the researcher is then reduced back by looking at the problem. Furthermore, the researcher presents the data that has been collected to make conclusions from what has been triangulation of data sources.

3. Result and Discussion

The results of the study show that the Montessori approach is effective in increasing early childhood interest and ability in learning Calistung. Children seem to be more independent and able to learn at their own pace. Teachers play the role of facilitators who guide children when needed, but most children carry out learning activities independently (Sari, 2020: 89). The use of props such as sandpaper letters and number rods helps children develop a deeper understanding of letters and numbers. Reading and writing skills are basic skills that must be mastered by students. Without good reading skills, a student will have difficulty in learning, because the basis of a student's academic success lies in fluency in reading. (Irine Kurniastuti, 2016 : 173)

Reading skills are the basis for mastering various fields of study. If the early schooler does not have the ability to read immediately, then he or she will experience many difficulties in understanding the field of study in later

education. Therefore, children must learn to read so that they can read to learn. (Mulyono Abdurrahman, 2003: 200) The Montessori method is an educational approach that emphasizes children's independence in the learning process, as well as providing opportunities for children to learn according to their own pace and interests. In the context of Reading, Writing, and Counting (Calistung) learning for early childhood, this method integrates the use of props specifically designed to support children's cognitive, motor, and sensory development. The following is how to implement Calistung learning with the Montessori method:

Creating a Structured Environment

A conducive learning environment is a key element in the Montessori method. The classroom is well organized, and Calistung learning materials such as sandpaper letters, movable alphabets, and number rods are arranged regularly to make it easily accessible to children. This environment gives children the freedom to choose the learning activities they are interested in, as well as providing a sense of responsibility and independence in learning.



Figure 1. The Concept Of Calistung Through Sensory Stimulation

Designed to make it easier for children to understand the concept of Calistung through sensory stimulation. Some of the props used are:

- Sandpaper Letters: Children touch letters made of sandpaper to recognize the shape and sound of letters through touch.
- Moveable Alphabet: Children string together letters that can be moved around to form words, practicing reading and writing skills.
- Number Rods: Used to introduce the concept of numbers and quantities, children learn to count by understanding the visual representation of numbers.

Individual Approach and Independent Learning

Montessori emphasized that each child has a different learning style, and therefore, Calistung learning is carried out individually. Children are given the freedom to choose props that suit their developmental level, so that they can learn to read, write, and count in the most effective way for them. Teachers act as facilitators who observe children's development and provide guidance if needed, but do not impose certain learning methods.

Learning Through Exploration and Direct Experience

In the Montessori method, children learn through active exploration. For example, when learning to write, children use tools such as *sandpaper letters* to sense the shape of letters, so that their writing ability is formed naturally through tactile experience. Likewise with counting, children use physical aids such as *number rods* to understand numbers and the concepts of addition and subtraction.

Holistic Learning

In addition to teaching academic skills such as reading, writing, and arithmetic, Montessori also focuses on developing children's social, emotional, and motor aspects. Calistung learning not only teaches technical skills, but also encourages children to cooperate with their peers, develop self-confidence, and learn to solve problems independently.

Evaluation of Children's Progress

Teachers in the Montessori method do not provide written tests or exams to evaluate a child's development. Instead, the evaluation is carried out through observation of how children use the teaching aids, their interaction with the environment, and the progress they have made in Calistung learning. Children are not compared to each other, but are evaluated based on their individual development. Montessori also has several other advantages over traditional learning methods. If traditional learning is more inclined to abstract learning, while Montessori children are closer to real objects that children can find around them. The following is a comparison table of the Montessori method with traditional learning methods. (Suroso, 2007: 29)

4. Conclusion

The implementation of Calistung learning with the Montessori method encourages children to learn in a natural and fun way. This approach gives children the freedom to explore and develop their skills independently, while also getting guidance from teachers as facilitators. With a structured learning environment and props designed for sensory stimulation, children can understand the basic concepts of reading, writing, and counting in a more profound and meaningful way.

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