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Early Childhood Mathematics Learning in Realistic Mathematical Education (RME)

Windi Wulandari Iman Utama[1,*] Novianti Retno Utami[2,] Windi Wilujeng[3]

[1] *Universitas PGRI Yogyakarta*
[2] *Universitas PGRI Yogyakarta*
[*] *Corresponding author*. *Email:* windi@upy.ac.id

ABSTRACT

Mathematics is an ability that is used in everyday life. The importance of this mathematical ability competence must be introduced from an early age. This study aims to describe early childhood mathematics learning in Realistic Mathematical Education (RME). This research is qualitative research with a literature study approach. The findings show that: (1) Mathematics should be introduced from an early age (2) Mathematics is closely related to thinking skills and is indispensable in everyday life. (3) Learning mathematics for children should be done in a fun way and using simple things that are close to the child's life and are realistic.

Keywords: *Mathematics Learning, Early Childhood, Realistic Mathematical Education (RME)*

1. INTRODUCTION

Mathematical ability becomes a competency and is an ability that is closely used in everyday life. Mastery of mathematical concepts from an early age will contribute optimally to learning mathematics at higher education levels. This is important to note because in fact what is happening in Indonesia is the concept of mathematics is still a real problem. From the results of the 2018 Program for International Student Assessment (PISA) survey published in March 2019 that in reading, science and mathematics, Indonesia is in a low position, it is known that Indonesia ranks 74th out of 79 countries. Indonesia experienced a decline from rank 64 in 2015 to rank 74 in 2018. Furthermore, in the mathematics category, Indonesia was in the position of rank 63 in 2015 and decreased to rank 73 in 2018 (Markus, 2019). In other words, from year to year the mathematical ability of children in Indonesia has decreased, meaning that Indonesia is still below the average compared to other countries in the world. Based on the results of the PISA survey, it can be interpreted that children's mathematical abilities need to be improved to prepare children to enter higher education levels and make mathematics a part of children's daily lives.

Mathematics is the ability to recognize numbers which is a useful competency in everyday life. The importance of this number recognition competence must be introduced from an early age. Mathematics is very closely related to the ability to think and develop the ability of children's thinking patterns. The problem of mathematics in early childhood is the lack of children in recognizing concepts due to abstract teaching, while the developmental achievement that is expected to be achieved by children is the introduction of the concept of numbers in a concrete way. Therefore, learning mathematics for children should be done in a fun way and using simple things that are close and popular with early childhood. As the nature of early childhood, building knowledge is carried out through play activities so that children do not realize that the games they are playing are learning mathematics (Amalina, 2020; Kholid, 2020; Nabighoh et al., 2022; Nurhayati & Rasyid, 2019). In the introduction of mathematics for early childhood, appropriate learning media are needed so that learning is more relevant so that the maturity of children's mathematical abilities can increase to the maximum, this will be useful for building the initial foundation for learning mathematics in children.

Learning mathematics from an early age is one way to train children's ability to think logically and systematically, as well as stimulate thinking skills to have readiness in learning mathematics at a further stage. The indicators of the dimensions of mathematical calculations are that the child is able to: (1) recognize the sequence of numbers, (2) count/count the number of objects, (3) recognize the concept of adding and subtracting, (4) comparing the number of objects, and (5) measuring objects/objects (Azhima et al., 2021; Nyoman Utari, 2016).

Realistic Mathematical Education is learning that uses the real world as a starting point in the development of mathematical ideas and concepts. This approach offers children the opportunity to manipulate real objects or props. The use of a realistic mathematical education approach to improve mathematical connection skills in early childhood has contributed to improving student learning outcomes and making learning more meaningful (Adjie et al., 2020; Nia Fatmawati, 2014).

2. METHODOLOGY

This study uses a literature review with a qualitative research approach through data collection based on scientific articles related to research variables. The method of data collection is done through the literature review method. There are four steps that guide the literature review, namely: (1) searching for literature, (2) assessing literature, (3) systematically examining and analyzing literature content, (4) synthesizing literature content (Mahyuddin K. M. Nasution, 2017)

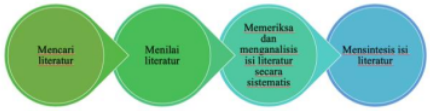

Figure 1. Steps for Literature Review

Literature review aims to summarize, analyze, and interpret concepts and theories related to a study (Anderson Gary, 1998). The literature review conducted in this study focuses on study materials that are specifically focused on the research subject being studied, namely those related to early childhood mathematics and realistic mathematics education (RME).

3. CONCLUSION

The importance of mathematical abilities must be introduced from an early age because mathematics is closely related to thinking skills and is indispensable in everyday life. Learning mathematics for children should be done in a fun way and using simple things that are close to the lives of early childhood so that the maturity of children's mathematical abilities can increase to the maximum, this will be useful for building the initial foundation of learning mathematics in children. Learning mathematics from an early age is one way to train children's ability to think logically and systematically, as well as stimulate thinking skills to have readiness in learning mathematics at a further stage. Using a realistic mathematical education approach that presents real things in its implementation is a starting point in the development of mathematical ideas and concepts. This approach offers children the opportunity to explore and manipulate the media used. The use of a realistic mathematical education approach in learning mathematics in early childhood will improve children's mathematical abilities and make learning more meaningful.

AUTHORS' CONTRIBUTIONS

The title "AUTHORS' CONTRIBUTIONS" should be in all caps.

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