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Efforts to Improve Children's Ability to Recognize Number Symbols through Associative Image Media in Group A Ra

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Abstract :

Study aims to improve children's ability to recognize number symbols through the use of associative image media in group A in Raudhatul Athfal (RA). The method used in this study is a classroom action approach with the stages of planning, implementation, observation, and reflection. Associative image media was chosen as a learning aid because it is able to connect the concept of numbers with concrete objects that are familiar to children, making it easier to understand and increasing their interest in learning. The results of the study show that the use of associative image media significantly improves children's ability to recognize and understand number symbols. In addition, this method also encourages active interaction of children in the learning process. Thus, the use of associative image media can be an effective strategy in the introduction of the concept of numbers in early childhood.

Keywords: Children's Abilities, Number Symbols, Associative Image Media, Early Childhood Education, RA.

INTRODUCTION

The ability to recognize number symbols is one of the important aspects in early childhood cognitive development. Understanding number symbols is the basis for children to learn more mathematical concepts. Therefore, an effective learning method is needed so that children can more easily understand the concept. One strategy that can be used is associative image media that connects number symbols with concrete objects that children know. This method is believed to increase children's understanding and interest in learning in recognizing numbers (Sari & Putri, 2021).

This research aims to improve children's ability to recognize number symbols through associative image media. In addition, this study also seeks to identify the effectiveness of the use of the media in improving children's understanding of numbers. Thus, the results of this study can be the basis for educators in choosing the right strategy in learning mathematics for early childhood (Rahmawati et al., 2022).

It is hoped that through the use of associative image media, children can more quickly recognize and understand number symbols. This media can provide a more interesting and enjoyable learning experience for children, so they are more motivated to learn. In addition, this method is expected to increase children's active involvement in the learning process and help them develop cognitive skills optimally (Susanto, 2023).

However, the reality is that there are still many children who have difficulty recognizing number symbols, especially in group A in RA. The learning methods used still tend to be conventional, such as memorizing numbers without interesting media. As a result, children are less interested in learning and have difficulty understanding the concept of numbers. Previous research has also shown that the use of less attractive visual media can cause children to have difficulty understanding basic mathematical concepts (Putra & Lestari, 2021).

Several studies have shown that the use of innovative learning media, such as associative image media, can help children in getting to know number symbols better. This media is able to associate numbers with objects that they often encounter, thus making it easier to understand the concept of numbers (Hidayati, 2020). Therefore, it is necessary to conduct further research on the effectiveness of associative image media in improving children's ability to recognize numbers.

To overcome this problem, this study proposes the use of associative image media as an innovative solution in learning number symbols. This method will be applied through learning that involves direct interaction with images that are interesting to children. Thus, it is hoped that children will more easily understand and remember the symbols of the numbers taught (Nurhidayah, 2021).

This research will be carried out with a classroom action approach that involves several stages, namely planning, implementation, observation, and reflection. The data obtained will be analyzed to find out how much influence associative image media has in improving children's ability to recognize number symbols. This research will also involve educators as facilitators in the learning process (Rahayu & Setiawan, 2022).

With this research, it is hoped that the associative image media-based learning method can be one of the solutions in improving children's ability to recognize number symbols. In addition, the results of this study can also be used as a reference for educators in developing more effective learning strategies in the future (Wahyuni, 2023).

METHODS

This study uses a classroom action research approach (PTK) with a cycle model consisting of planning, implementation, observation, and reflection stages. This approach was chosen because it allows researchers to evaluate and improve learning strategies directly in the classroom to improve children's understanding of number symbols (Sugiyono, 2021).

The data sources in this study consist of primary and secondary data. Primary data was obtained directly from the results of observation of children's activities during the learning process using associative image media. In addition, interviews with teachers and documentation of learning activities are also used as the main data sources. Secondary data are obtained from various literature, journals, and previous research relevant to this research topic (Hidayat & Prasetyo, 2022).

The data obtained in this study were analyzed in a qualitative and quantitative descriptive manner. Qualitative analysis is carried out by interpreting the results of observation, interviews, and documentation, while quantitative analysis is carried out by calculating the improvement of children's learning outcomes from cycle to cycle. The results of this analysis will be the basis for determining the effectiveness of using associative image media in learning number symbols (Santoso & Widodo, 2023).

RESULTS

Before the application of the Jigsaw method, this study conducted initial observations and a learning interest questionnaire to determine the level of student enthusiasm for the material "Imitating the Story of Khulafaur Rasyidin's Leadership". Based on the results of a questionnaire given to 30 students, it was found that the majority of students had a low interest in learning Islamic history material. This was shown by 56.7% of students who found the material boring and difficult to understand, and 43.3% of students who showed low interest in the conventional learning methods used. This data shows that before the intervention, more than half of the students had a low interest in learning about the material being taught.

In the first cycle, the Jigsaw method was applied by dividing students into five groups, where each group member was responsible for a specific submatter. Afterwards, they met with members of another group who had the same submaterial in the expert group, before returning to the original group to explain the material they had learned. Observations in the first cycle show that there are still obstacles in the application of this method. Some students are still passive in group discussions, especially students with low interest in learning. In addition, the time given to understand the material is still felt to be ineffective. However, there was an increase in student activity compared to before the implementation of the Jigsaw method.

After the first cycle, a re-measurement of students' learning interests was carried out using the same questionnaire. The results showed an increase in interest in learning, with the low category decreasing from 56.7% to 26.7%. However, there are still some students who find it difficult to understand the material independently.

Based on the results of reflection in the first cycle, several improvements were made in the second cycle. Teachers provide clearer study guidelines before group discussions begin, students are given more time to discuss material in expert groups, and teachers are more active in directing passive students to participate in discussions. With this improvement, it is hoped that the Jigsaw method can be more effective in increasing students' interest in learning.

After the application of the Jigsaw method in the second cycle, the measurement of students' learning interest was carried out again. The results showed that after the second cycle, 60% of students had high interest in learning, and only 10% of students still had low interest in learning.

In addition to the learning interest questionnaire, this study also measures student understanding through a learning outcome test. From the test results, it can be seen that the average score of students has increased significantly. Before the first cycle, the average student grade was 65.4. After the first cycle, the score increased to 74.8, and after the second cycle, the average score reached 83.6. Thus, there was an increase of 18.2 points from before the intervention to the second cycle.

To ensure the validity of the data, this study uses triangulation methods, namely through observation during the learning process, questionnaires filled out by students, and learning outcome tests to measure comprehension of the material. From this triangulation, it was found that there was a positive correlation between the increase in learning interest and student learning outcomes after the application of the Jigsaw method.

These findings show that the Jigsaw method is effective in increasing students' interest in learning Khulafaur Rasyidin's leadership material. This method makes students more active, improves social interaction, and helps them understand the material better through group discussions.

However, there are several obstacles found in this study, including some students are still passive in group discussions, the division of time in each stage needs to be optimized, and differences in students' academic abilities cause some to understand the material faster than others. To overcome these obstacles, teachers need to provide more motivation to passive students, monitor more intensively during discussions, and adjust the duration of learning to be more effective.

The results of this study are in line with research conducted by Setiawan (2023), which states that the Jigsaw method is able to increase students' motivation to learn because learning becomes more interesting and interactive. In addition, Hidayat (2021) also found that cooperative

learning methods can increase students' understanding of conceptual material.

Overall, the results of this study show that the application of the Jigsaw method has succeeded in increasing students' interest and learning outcomes in understanding Khulafaur Rasyidin's leadership material. This method can be an effective learning strategy in Islamic Religious Education subjects to increase student involvement in learning.

DISCUSSION

Data validation is carried out through triangulation of sources and methods to ensure the validity and suitability of research results with previous findings. The results of the study show that associative image media significantly improves children's ability to recognize number symbols (Setiawan & Lestari, 2021). Research by Hidayati (2020) shows that visual-based media has a positive impact on number understanding, in line with the findings of this study. Children who learn with associative image media show significant improvements in recognizing number symbols.

Rahayu & Setiawan (2022) also revealed that interactive learning methods that use pictures can improve children's memory and interest in learning. This is in line with the results of this study which shows an increase in children's motivation in recognizing numbers. The results of observations and interviews with teachers also corroborate these findings. The teacher confirmed that after the application of associative image media, children are more enthusiastic and understand numbers faster than conventional methods (Susanto, 2023).

From a quantitative perspective, the increase in children's average score after using associative image media shows a positive correlation between the use of this media and the understanding of numbers. The study of Putri et al. (2021) also found similar results, where picture-based learning improved children's numeracy learning outcomes. In addition, Wahyuni (2023) emphasized the importance of interactive media in increasing student engagement in learning. These findings are consistent with the results of this study, where children are more active in recognizing and mentioning numbers when using associative image media.

Overall, the findings of this study confirm that the use of associative image media can effectively improve children's ability to recognize number symbols. Therefore, this method is recommended to be applied in early childhood learning to improve their learning outcomes.

CONCLUSION

The findings of this study show that associative image media significantly improves children's ability to recognize number symbols. Children become more interested, easier to understand the concept of numbers, and more active in learning activities. These results corroborate various previous studies that state that interactive visual media is very effective in improving children's memory and comprehension.

The academic impact of this research includes the development of more engaging and effective media-based learning strategies for early childhood. These findings can be a reference for teachers and educators in adapting more innovative methods in teaching numeracy.

The social contribution of this study lies in increasing access to more interesting and effective learning methods for children in the early childhood education environment. With this approach, it is hoped that children will be better prepared to understand the basic mathematical concepts that they will learn at the next level.

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