



## Application of Picture Card Media to Improve the Ability to Recognize the Concept of Numbers 1-10

Buana<sup>1)</sup>, Nurhafit Kurniawan<sup>1)</sup>, A. Zulkarnain Ali<sup>1)</sup>, Pascalian Hadi Pradana<sup>1)\*</sup>

<sup>1)</sup>Department of Teacher Education-Early Childhood Education, Universitas PGRI Argopuro Jember. Jember, Indonesia.

*Received: 22 September 2023*

*Revised: 30 November 2023*

*Accepted: 20 December 2023*

### Abstract

Picture card media is a learning aid used to improve the ability to recognize number concepts. By using picture card media, children can easily visualize the concept of numbers and hone their ability to recognize numbers and count sequentially. This research aims to increase understanding of the concept of numbers 1-10 using picture cards as media. The inability to correctly identify the concept of numbers 1 to 10 was the driving force for this research. This research uses a type of classroom action research. Classroom Action Research is a research method carried out to improve and enhance learning outcomes in the form of cycles. In each classroom action research cycle, the teacher carries out planning, action, observation, reflection, and modification to achieve the set learning objectives. Twelve children will be research subjects. Data collection techniques involve observation and documentation. To convert data into percentages, data analysis techniques use qualitative and quantitative descriptive approaches. With picture card media, research results regarding increasing children's understanding of the numbers 1–10 can be improved. The results showed that before the action the child's ability to understand the concept of numbers 1-10 gained a percentage of 16.67%. Then it increased to 50% in Cycle I and continued to increase to 83.33% in Cycle II. These results support that picture cards are a useful medium for teaching the concept of numbers 1-10. Picture card media can be used as an alternative to improve the ability to recognize the concept of numbers 1-10.

**Keywords:** media; number symbols; picture cards.

## INTRODUCTION

Education is a communication process that involves the lifelong transmission of knowledge, values and skills from one generation to the next (Sujana, 2019). Apart from formal educational settings, social contexts such as family and society also play a role in education. Education is directed at increasing the potential that exists in humans as individuals and society as a whole (Nurkholis, 2013). It takes a lot of energy to study. The child's potential is nurtured, developed, strengthened and enhanced through this educational process, which will help him succeed in life. Similar to how quickly human civilization advances, the science of education has become specialized and advanced. One of them is the rapid development of the area of early childhood education. The government and society currently pay great attention to early childhood education. Early childhood education is different from primary, secondary and higher education. Early Childhood Education requires unique approaches, methods and ways of learning that are tailored to children's learning preferences. Early childhood education is very important because young children need to be guided and stimulated well so they can grow and develop optimally (Syafudin & Drupadi, 2021). Children's potential will be directed towards exploration and development through the guidance and stimulation provided, so that children can grow and develop as well as possible. It is vital for children's growth and development that they have access to higher education. Children's growth and development will be maximized if

\* Author Correspondence. E-mail: [pascalian10@gmail.com](mailto:pascalian10@gmail.com)

stimulation is carried out well and consistently. Bearing in mind that growth at the age of 0 to 6 years is rapid growth during the golden age (Sulaiman, 2022; Bonita et al., 2022; Yunita & Eliza, 2021). Therefore, by providing appropriate stimulation, or stimulation that is adapted to the stage of development and maturity of the child's brain. This stimulus is delivered in a series of simple to complex stages. Apart from that, stimulation continues until the child really understands the concepts being taught.

The best time to guide children in their growth and development is when they are still small, so it is important to provide educational stimulation to them. Early childhood, known as the "golden age", is characterized by very rapid growth and development. The growth of intelligence in early childhood, especially in children aged 4-6 years, has increased from 50% to 80% (Sujiono, 2013). A further 30% of ability is achieved before the age of eight, with the first four years determining 50% of human learning ability. The child's brain has a high capacity to absorb information in the moment through sensory experience. From their environment, children quickly pick up various skills.

It is important to make the most of this time so that children can reach their full potential. Five different aspects of development are present in early childhood. Language, cognitive, motor skills, religious and moral values, as well as social emotional development, are some aspects of this development. In order for children to grow and develop as they should, these five areas of development need to be properly stimulated. Cognitive development is one area of development that requires extra stimulation and attention. Thinking development is often equated with cognitive development. The term "cognitive" refers to various kinds of thinking and observation abilities that help children learn (Patmonodewo, 2013). This way of thinking involves taking notes, remembering information, and generating solutions to problems. Three stages of children's cognitive thinking as enactive, iconic and symbolic stages. Children learn directly from concrete objects during the enactive stage, indirectly from real world images during the iconic stage, and symbolically during the symbolic stage (Pitadjeng, 2014).

The description above should show that when a child learns from his daily life, directly or indirectly he has learned and developed various aspects of himself. Playing picture card games has also been shown to help children with learning disabilities and improve their cognitive skills. Children's ability to cognitively conceptualize numbers from 1 -10 increases through coaching. This can help overcome learning difficulties by explaining how to apply the learning method of playing picture cards. It is recommended that research on cognitive development in PAUD show how easily children's cognitive abilities can be improved by using the picture card game method. Similar to this, a child will learn mathematics when he takes lessons from real-world situations. The ability to understand the concept of numbers is one of the mathematical abilities that children need to have. Of course, it must be interesting, fun and easy for children to understand when learning the concept of numbers in early childhood. The teacher's role is very decisive in creating a lively learning atmosphere in the classroom. Creative teachers can change their pedagogical approaches to engage their students in the learning process. Behavior modification, which can be done in three different ways by offering stimulation, rewarding good behavior, and punishing bad behavior is a great help to the success of the learning process.

In this regard, researchers discovered the challenges faced by children in Group A PAUD Flamboyan 60, Ledokombo District, Kab. Jember is related to the ability to understand the concept of numbers. It was found that three boys and seven girls, out of twelve children in group A, had difficulty understanding the idea of number symbols. Children still move around when pronouncing number symbols even though they already understand the concept of numbers and memorize them. Children's counting is also imprecise because there is a mismatch between the

number of objects counted and the way they pronounce them. This can happen because the learning process carried out does not follow Piaget's learning theory. According to Piaget, children's learning occurs through four stages: concrete, semi-concrete, abstract, and abstract. Learning carried out to introduce the concept of numbers in Group A PAUD Flamboyan 60, Ledokombo District, Kab. Jember, namely when learning mathematics by introducing the concept of numbers tends to be teacher-centred. For example, when the teacher introduces numbers, children are not given the opportunity to try them directly themselves. When teaching, the teacher uses a whiteboard and marker to write number symbols such as 1, 2, and so on. The teacher just points to the number he wrote while saying things like "this is one", "this is two", and the students just listen to what the teacher says. In accordance with their wishes, children are rarely given the opportunity to voice their opinions.

Teachers rarely involve objects when introducing numbers to children, so children do not yet understand what is called the concept of numbers. Found problems that arose when trying to explain introducing the concept of numbers to children in Group A PAUD Flamboyan 60, Ledokombo District, Kab. Jember is therefore considered not yet fully developed. Some children have difficulty understanding the concept of numbers, so it is difficult for them to name numbers in order from 1 to 10, connect objects to designated number symbols, differentiate between many and few objects, and recognize designated number symbols. Teachers often use traditional teaching techniques, which prevent them from providing opportunities for students to express various activity preferences, which is one of the factors that causes children's ability to develop less quickly in understanding number concepts. Children's access to interesting media is also rarely provided by teachers, and there is still little variety in the approaches and strategies used in learning. Writing assignments still dominate in every textbook so that learning in class becomes monotonous and repetitive. Teachers rarely use interesting teaching materials for children because it is widely believed that teaching and learning activities are boring and monotonous, and learning activities are rarely designed to be learned while playing. The methods and techniques used in learning are felt to be less varied despite these problems. Children struggle to understand the idea of numbers because of this situation.

To answer the problems mentioned above, researchers suggest ways to increase children's understanding of the concept of numbers by updating learning methods and media. Children will learn more quickly and effectively if learning occurs in a pleasant atmosphere. Children will be able to recognize the concept of numbers at the level of developmental achievement described in Permendiknas Number 58 of 2009, namely being able to recognize the concept of numbers 1–10. This can be achieved by introducing the concept of numbers in a friendly environment. Children in Group A PAUD Flamboyan 60, Ledokombo District, Kab, Jember, can use methods to improve their understanding of number concepts. busy with play activities. Apart from choosing the best teaching approach, using interesting media is also very beneficial for children's learning. For children who still think concretely, learning through media is simpler. The concept of numbers, for example, is easier for children to understand who use learning media. Pictures or imitations of lesson material can be used as teaching aids to introduce children to the idea of numbers. Picture number cards are a useful and entertaining teaching resource that can make it easier for children to understand the idea of numbers. Picture number cards are a useful learning tool for understanding the concept of numbers.

Picture number cards are cards with number symbols and pictures as well as cards with pictures whose numbers match the number symbols written on the card (Dahlan, 2022: Fitriani, et al., 2022). These picture number cards are a tool that can help in understanding number symbols. These picture number cards can be created by educational professionals. Illustrated picture cards are created based on the theme created and the child's stage of cognitive

development. If learning about picture cards is approached in a fun way, especially through games, children will have more fun and become more adept at recognizing number symbols.

It is clear from the description above that teaching children to recognize the concept of numbers through the use of picture cards is beneficial. Children learn the concept of numbers more easily when playing with cards with pictures of numbers (Indriani, 2013; Karim & Wifroh, 2014; Nasrudin & Roslina, 2019; Setyowati, 2013). Children will be involved in the learning process when playing with picture cards that are made as attractive as possible. Children become more enthusiastic learners because the learning environment is more enjoyable, which makes them more engaged in their educational activities. Researchers will raise this problem in research entitled "Application of Picture Card Media to Improve the Ability to Understand the Concept of Numbers 1-10 in Flamboyant Early Childhood Education in 60 Ledokombo Districts, Jember Regency" considering that objective conditions in the field are less precise and children's competency in understanding numbers is still low. Thus, this research aims to increase understanding of the concept of numbers 1-10 through the use of picture card media.

## **METHODS**

Collaborative-based Classroom Action Research (CAR) is the research method used. The action suggested by this research is to use picture cards to implement learning through play to help children better understand the concept of numbers. This research was carried out at Early Childhood Education Flamboyan 60, Ledokombo District, Jember Regency, especially group A with cyclical implementation, where each cycle included two meetings (preparation, two implementations, observation, and finally reflection).

The subjects in this research were Group A of Flamboyan Early Childhood Education 60, Ledokombo District, Jember Regency, totaling 12 children consisting of 4 male students and 8 female students. The aim of this research is to implement picture card playing media to improve children's understanding of number concepts. Planning, implementation, observation, and reflection are components of each of the two cycles used to conduct this research. There are many classroom action research models that can be used, but the research model chosen by researchers is the cycle model from Kemmis and McTaggart which is repetitive and continuous, with stages in the form of planning, action, observation and reflection (Maliasih et al., 2017).

Data collection techniques are used, such as observation and documentation, with the aim of measuring the level of success of the learning process. As a result of the observation and documentation techniques used, the data collected will be strengthened and supplemented, resulting in data that is more thorough, precise and traceable. Researchers will use children's ability to recognize the concept of numbers through observation as a source of data collection material. As an instrument for collecting data, observation notes and documentation were created for this research. This research tool, which consists of indicators related to the ability to understand the concept of numbers in early childhood, was created using the picture number card game method.

This research uses quantitative descriptive analysis as a data analysis method. quantitative descriptive, or describing research findings, especially findings from observing children's understanding of the concept of numbers 1–10. The quantitative calculation results are then described using narrative. Data from observation sheets regarding children's learning outcomes in recognizing number symbols using cards with pictures of numbers were used in the analysis of this research. For each cycle, the percentage descriptive analysis method is used. analysis of quantitative and descriptive research data. The following formula is adapted from (Sudijono, 2010), which is used to calculate percentages in this research.

$$P = \frac{f}{N} \times 100\% \dots\dots\dots(1)$$

With, P : percentage number, f : the frequency the percentage is being searched for, N : number of frequencies/number of individuals. Each indicator will calculate the total score obtained by each student in one class in Group A PAUD Flamboyan 60 Ledokombo District. Then the percentage is determined for each score on each indicator. The percentage of observation results obtained is used to analyze observation data in order to draw conclusions.

**RESULTS AND DISCUSSION**

The implementation of pre-action began in Group A of Flamboyan 60 Early Childhood Education, Ledokombo District. Group A has a total of 12 children, consisting of 4 male students and 8 female students. Based on the results of observations made by researchers, in Group A Paud Flamboyan 60, Ledokombo District, with aspects of children's development at school, the problem that emerged and was nominated in group A Paud Flamboyan 60 was the aspect of developing the ability to recognize the concept of numbers 1-10. Before starting the research, the researcher made initial observations by testing the participants' ability to recognize the concept of numbers 1–10 using number cards as a learning medium. Findings from observations show that children's talents are still lacking. Many children still need teacher help in pronouncing, recognizing and arranging the numbers 1 to 10 correctly. Playing cards with pictures of numbers can help children develop this skill, but children still need guidance and stimulation to be able to name the symbols for the numbers 1 to 10. It is proven from observations, the data obtained from the first experiment using observation instruments is as follows.

**Table 1. Recapitulation of data on ability to recognize the concept of numbers 1-10 in Pre-Action**

No	Score	Criteria	Number of children	Percentage
1	3	Can	2	16.67%
2	2	You can with guidance	3	25%
3	1	Can not Amount	7	58.33%
			12	100%

From the data in table 1 regarding Recapitulation of percentage data on children's ability to recognize the concept of numbers 1-10 in Pre-action, it illustrates the percentage of children who can understand numbers 1-10 before any action is taken, and it is clear that the majority of children still have a very low standard of understanding for the number 1 –10. The graph shows that only 16.67% of children have the criteria that they can, 25% have the criteria that they can with guidance, and 58.33% of children with the criteria that they can't do it are still very dominant.

The lack of children's ability to recognize the concept of numbers 1-10 is because the learning carried out does not pay attention to the child's thinking stages as stated by Piaget (in Pitadjeng, 2006: 28), namely starting from concrete, semi-concrete, semi-abstract thinking and until they are able to think abstractly. The learning carried out to introduce the concept of numbers is carried out at Paud Flamboyan 60, Ledokombo District, in reverse, where children are invited to think abstractly without going through learning stages that correspond to their

stages of thinking. Children are shown number symbols and asked to find pictures that match the number symbols as part of the learning process.

In cycle I, the learning process was carried out in two meetings. The implementation of this classroom action research began with the researcher and the children praying together. The researcher invited the children to discuss the day's topic of getting to know the numbers 1 to 10. The child was informed beforehand about the main activity by the researcher. To help children recognize numbers, researchers invited them to sing. Children were shown number cards by researchers. The teacher asks students to collectively name each picture on the number card while counting the number of pictures on each card. Children are tasked with estimating approximately how many numbers there should be between number cards 3 and 5. The aim of this activity is to attract children's attention by using number cards and teach them to be careful in saying, identifying, and arrange the numbers 1 to 10. The teacher gives a number card to each student. The child's task is to name, identify and sort the number cards from cards with numbers 1 to 10 on their respective tables. Teachers and researchers observed and documented how children progressed, particularly in their ability to recognize the symbols for the numbers 1–10, as they learned to recognize the concept of the numbers 1–10 through the use of number cards. Children who are still experiencing difficulties are encouraged and guided by teachers. The researcher repeated the previous activity with the children in the final activity. Researchers asked children's feelings about how easy or difficult it was to participate in the day's activities. Children who excel in learning activities are recognized with awards from researchers and teachers. A song was then sung by the researcher and the child, followed by a prayer, before they separated, prayed for each other, and said goodbye.

The observer makes observations or observations at the same time as the action stage. Children's introduction to the concept of numbers 1–10 through the use of picture cards was observed through observation activities, as was children's interest in playing picture cards during the learning process. The ability to associate numbers 1–10 with certain objects and recognition of number symbols are the indicators observed. The following information was obtained from the observed child activity data sheet:

**Table 2. Results of data on the ability to recognize the concept of numbers 1-10 in Cycle I**

No	Score	Criteria	Number of children	Percentage
1	3	Can	6	50%
2	2	You can with guidance	5	41.67%
3	1	Can not	1	8.33%
		Amount	12	100%

From the data in Table 2, the recapitulation of the percentage of children's ability to recognize the concept of numbers 1-10, cycle 1, shows the percentage of children who were able to recognize the concept of numbers 1-10 after taking action in the field. Most children have shown an increase in their ability to recognize the concept of numbers 1-10. This can be seen from the graph which shows that children who can recognize the concept of numbers 1–10 with only a few criteria cannot achieve a score of 8.33%, children with criteria can get a score percentage of 41.67% with guidance, and children with criteria can get a score of 41.67%. score percentage 50%.

The learning process includes two meetings in cycle II at once. The RPP that will be used in cycle II has been revised. To improve this learning, it is necessary to improve teaching methods, media and child-friendly activities. To start the activity, the participants enter the room after lining up in front of the class. The researchers and children continued to shake hands and pray together. Then, the researchers and the children started singing and clapping to make the classroom atmosphere friendly and fun and use up the children's excess energy. Researchers invited children who wanted to drink, as did children who wanted to unwind. In their descriptions of core activities, researchers provide instructions. Most children can name, recognize and arrange the numbers 1–10 in this important activity. This is so that children remember when the researcher displays cards with picture numbers because they have started to learn to name, recognize and arrange the numbers 1–10 through the use of picture cards. The teacher reviews the exercise with the children after the activity is completed. Researchers asked children about their feelings following the day's activities, including whether they were happy or not. Children who actively participate in educational activities are recognized by researchers and teachers. After singing, praying, saying goodbye, and closing, teachers and students leave for home together.

Observers carry out observations independently or simultaneously with the action stage. During the observation activities, it was seen that the children's understanding of the numbers 1–10 using picture cards with pictures and their enthusiasm for doing so as a learning tool was clearly visible. Learning the concept of numbers 1 to 10 in relation to objects is a clear indicator. The following is information obtained from the child activity observation sheet data.

**Table 3. Recapitulation of data on ability to recognize the concept of numbers 1-10 in Cycle II**

No	Score	Criteria	Number of children	Percentage
1	3	Can	10	83.33%
2	2	You can with guidance	2	16.67%
3	1	Can not Amount	0	0%
			12	100%

From the data in Table 3 regarding the recapitulation of the percentage of children's ability to recognize the concept of numbers 1-10 Cycle II, it is concluded that the application of the use of picture card games to help children at PAUD Flamboyan 60 Group A, Ledokombo District, improve their understanding of the concept of numbers 1-10 has been carried out well. successful and has met the success criteria that have been converted into research objectives. Considering that 83.33% or 10 of the 12 children of the group fulfill the requirement of having "good knowledge of the concept of numbers" and the other two or 16.67% are insufficient, it can be concluded that the majority of children in group A are able to understand the meaning of numbers. According to the findings, 83.33% of children in the good category can understand the concept of numbers from 1 to 10. As children's ability to recognize the concept of numbers increases, indicators of research success are achieved. After considering the results of expanding children's conceptual understanding of numbers 1–10 in Cycle II, the researcher decided to stop the research.

This research is classroom action research carried out in two cycles, namely Cycle I and Cycle II. Planning, doing, observing, and reflecting make up each cycle. Two meetings are held in each cycle. In research there will always be improvements in each cycle to improve the

learning process. The findings of this research are the results of observations regarding the ability to recognize the concept of numbers from 1 to 10. Children in PAUD Flamboyan 60 Group A, Ledokombo District have limited ability to recognize the concept of numbers 1 to 10, either at the beginning of their development or before taking any action. . This means that their capacity does not match the level of developmental attainment described in Minister of National Education Regulation Number 58 of 2009. Ten out of twelve children still have difficulty counting many objects, according to research findings based on initial observations.

Based on the results of Cycle I, learning generally went quite smoothly, and the children in Group A were very enthusiastic and interested in playing picture cards. At the beginning of the game, children move very slowly. This affects how productive study time is. Because the allotted time had run out, some children decided to end the game. In addition, children have difficulty counting pictures on number cards with large number symbols because they look small. The results of the research showed that 50% of children could correctly identify number symbols after learning Cycle I. There was an increase in the percentage of children who could understand the concept of numbers clearly, in accordance with the results of implementing Cycle I learning. It was also seen that students experienced difficulties in Cycle I in understanding the concept number. Based on the success indicators, the first cycle of learning was less successful than expected, namely 75% of children were at the acceptable criteria, and the next cycle is likely to follow the same pattern.

Cycle II has a more conducive learning environment, and students are more involved, focused, and interested in understanding the concept of numbers 1–10 through the use of picture cards. This is so that all children can use cards with picture numbers as a medium to understand the meaning of the numbers 1 to 10. Apart from that, researchers gave prizes. This prize can be extra motivation for each child to complete all the tasks. Children who successfully complete the task will receive a prize with their name on it. As a result, for children who are enthusiastic and motivated to complete all their tasks, the reward stick will be longer. The concept of numbers 1 to 10 is taught to children using picture number cards. Number cards are educational toys that make teaching and learning more efficient and are created to help children better understand the meaning of the numbers 1 to 10. Picture number cards that have the numbers 1–10 written on them and are colorfully illustrated are intended to improve various aspects of learning. children's cognitive development, especially their ability to understand the concept of numbers. In essence, the ability to recognize the concept of numbers 1–10 needs to be developed at an early stage of cognitive development. The indicators of success anticipated by the researchers have been met by the understanding of group A Flamboyan 60 children regarding the concept of numbers 1–10. As a result, the second cycle of classroom action research was stopped.

Children's ability to understand the concept of numbers 1–10 can develop well after learning using picture cards. The ability of children from Group A PAUD Flamboyan 60 Ledokombo District to recognize the concept of numbers 1-10, playing picture cards can help students understand concepts related to numbers 1-10 more clearly. This can be seen from the increasing percentage of children who can understand the concept of numbers after being taught using number cards. The ability of children in Group A to recognize the number concept 1–10 has improved, and they now have a higher proportion of children who can do so at each of the preaction, Cycle I, and Cycle II stages (17%, 50%, and 83, respectively). 33%). Playing picture number cards helps children better understand the idea of the numbers 1–10 in this way.

Teaching children in Group A Flamboyan 60 Ledokombo District, the numbers 1–10 using number cards can not only help them better understand the concept of numbers, but can also increase their enthusiasm for learning. Introducing the concept of numbers to children



using numbered picture cards makes learning more fun for them. When learning is fun, children are more engaged and enthusiastic, which makes learning more relatable. Thus, playing number games with pictures can help the children of PAUD Group A Flamboyan 60, Ledokombo District, Jember Regency to better understand the meaning of the numbers 1–10.

## CONCLUSIONS

Based on research findings and subsequent discussion, picture number cards can help students in Group A PAUD Flamboyan 60 Ledokombo District understand the concept of numbers from 1 to 10. This increase can be seen in the percentage of cases that continued with class action after the Pre-Action stage. The results of cycle I which meet the development requirements are very good or get a score of 50%. After the action in Cycle II, the percentage score increased to 83.33% or 10 out of 12 children were able to identify the concept of numbers from 1 to 10 and met the development standards of very good or able. This shows how the use of picture number cards in learning can help Group A Flamboyan 60 PAUD students in Ledokombo District, Kab, Jember better understand the concept of numbers 1–10.

## REFERENCES

- Bonita, E., Suryana, E., Hamdani, M. I., & Harto, K. (2022). The Golden Age: Perkembangan Anak Usia Dini Dan Implikasinya Terhadap Pendidikan Islam. *Tarbawiyah: Jurnal Ilmiah Pendidikan*, 6(2), 218-228. <https://doi.org/10.32332/tarbawiyah.v6i2.5537>.
- Dahlan, K. (2022). Peningkatan Kemampuan Mengenal Konsep Bilangan melalui Media Kartu Angka pada Anak Usia 5-6 Tahun. *Jurnal Edukasi Saintifik*, 2(1), 9-18. | .
- Fauziddin, M., & Mufarizuddin, M. (2018). Useful of clap hand games for optimalize cogtivite aspects in early childhood education. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 2(2), 162-169. <https://doi.org/10.31004/obsesi.v2i2.76>.
- Fitriani, F., Irfan, M., & Sunardi, S. (2022). Pengembangan Media Kartu Angka Bergambar Untuk Meningkatkan Kemampuan Mengenal Lambang Bilangan 1-10 Siswa Kelas 1 SDN Nunu. *Pinisi Journal Pendidikan Guru Sekolah Dasar*, 2(1), 140-147. |
- Indriani, I. (2013). Penggunaan Media Kartu Bilangan untuk Meningkatkan Kemampuan Konsep Bilangan 1-5 pada Anak Tunagrahita Ringan. *JASSI ANAKKU*, 13(2), 143-152.
- Karim, M. B., & Wifroh, S. H. (2014). Meningkatkan Perkembangan Kognitif Pada Anak Usia Dini Melalui Alat Permainan Edukatif. *Jurnal PG-PAUD Trunojoyo: Jurnal Pendidikan dan Pembelajaran Anak Usia Dini*, 1(2), 103-113. |
- Maliasih, M., Hartono, H., & Nurani, P. (2017). Upaya meningkatkan motivasi belajar dan hasil belajar kognitif melalui metode teams games tournaments dengan strategi peta konsep pada siswa SMA. *Jurnal Profesi Keguruan*, 3(2), 222-226.
- Nashruddin, N., & Roslina, R. (2019). Pemberian Tugas Terstruktur Untuk Meningkatkan Hasil Belajar Matematika Siswa Kelas XI SMK. *HISTOGRAM: Jurnal Pendidikan Matematika*, 3(1), 1-13.
- Nurkholis, N. (2013). Pendidikan dalam upaya memajukan teknologi. *Jurnal kependidikan*, 1(1), 24-44. <https://doi.org/10.24090/jk.v1i1.530>.

- Patmonodewo, S. (2013). *Pendidikan Anak Prasekolah*. Jakarta: Rineka Cipta.
- Pitadjeng. (2014). *Pembelajaran Matematika yang Menyenangkan*. Jakarta: Departemen Pendidikan Nasional Direktorat Jenderal Pendidikan Tinggi.
- Setyowati, N. (2013). *Peningkatan Kemampuan Berhitung Melalui Penggunaan Media Kartu Angka Bagi Anak Kelompok B Pada TK 03 Tugu Jumantono Karanganyar Tahun 2012/2013*. (Sarjana), Universitas Muhammadiyah Surakarta, Surakarta.
- Siswoyo, D., et al. (2008). *Ilmu Pendidikan*. Yogyakarta: UNY Press.
- Sudijono, A. (2010). *Pengantar Statistik Pendidikan*. Jakarta: PT. Raja Grafindo Persada.
- Sujana, I. W. C. (2019). Fungsi dan tujuan pendidikan Indonesia. *Adi Widya: Jurnal Pendidikan Dasar*, 4(1), 29-39. <https://doi.org/10.25078/aw.v4i1.927>.
- Sujiono, Y., N. (2013). *Konsep Dasar Pendidikan Anak Usia Dini*. Jakarta: PT. Indeks.
- Sulaiman, W. (2022). Penerapan Pendidikan Islam Bagi Anak di Usia Emas Menurut Zakiah Dradjat. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(5), 3953-3966. <https://doi.org/10.31004/obsesi.v6i5.2418>.
- Syafrudin, U., & DRUPADI, R. D. (2021) Persepsi Orang Tua Terhadap Pentingnya Baca Tulis Hitung untuk Anak Usia 5-6 Tahun. *PAUD Lectura: Jurnal Pendidikan Anak Usia Dini*, 4(2), 62-69. <http://repository.lppm.unila.ac.id/31102/>.
- Yunita, L., & Eliza, D. (2021). Perkembangan Personality dan Sosial Anak Usia Dini. *Jurnal Pendidikan Tambusai*, 5(3), 9671-9678. <https://doi.org/10.31004/jptam.v5i3.2487>.