

## Flash Card as a Media for Recognizing Symbol of Number in Early Childhood

**Najiha Amalia<sup>1\*</sup>, Raden Rachmi<sup>2</sup>**

<sup>1,2</sup> Universitas Islam Negeri Sunan Kalijaga, Yogyakarta, Indonesia

---

### ABSTRACT

The aim of the research is to introduce symbol of number through flash card because at the time of the initial research the kindergarten still uses simple learning methods and there are also some children who are less able to recognize numbers. This research uses a qualitative method by applying a case study approach, while data collection uses interviews, observation and documentation. Participants in this research are school principals, teachers and students. As for the research results, teachers must choose a theme that is in accordance with the learning plan that has been prepared, prepare and provide interesting media or learning materials, open up opportunities for children to play with flash card, repeat material from play activities using picture flash card, and evaluate activities.

### Keywords:

Number Cards, Number Symbols, Early Childhood

<b><i>Article history:</i></b>
<i>Received January 02, 2024</i>
<i>Accepted June 22, 2024</i>
<i>Available online June 29, 2024</i>

\*Corresponding author.

E-mail addresses: [najihaamalia499@gmail.com](mailto:najihaamalia499@gmail.com)

This is an open access article under the [CC BY-SA](#) license.

Copyright © 2024 by Author. Published by Universitas Islam Negeri Raden Fatah Palembang

## **Introduction**

PAUD (Early childhood education programs) is an effort to provide guidance given to individuals from birth to 6 years. This is implemented to provide educational stimulation which supports physical and spiritual growth and development, ensuring children's preparation to move to the next stage (Yuliana, 2013). PAUD generally includes everything carried out by parents and teachers in caring for, educating, and nurturing children. This aims to create an environment in which children can explore various experiences, giving them opportunities to know and understand the learning process through observation, imitation and repeated experimentation, and all the potential that children have.

Cognitive development is the thought process of identifying, understanding, and reasoning so that it makes it easier for them to understand lessons, the ability to think logically and analyze critically and understand cause-and-effect relationships, the acquisition of knowledge, and the ability to adapt to new environments to solve problems (Retnaningrum & Umam, 2021).

Cognitive growth is a thought process that takes place in the brain and is used to understand a special event. Cognitive includes a person's ability to relate, assess, and consider the events which experienced (Sujiono, 2013). Cognitive ability is a thinking process that involves connection, assessment and consideration with the aim of developing intellectual potential and gaining knowledge. In the period of five years to six years, cognitive abilities reach the preoperational stage in which they have the ability to understand the reality of their surrounding environment using symbols (Fitriana, 2022).

In the kindergarten environment, play is a typical element, especially in the early stages of child development (Andesta et al., 2024; Novianti et al., 2022; Wahyuni et al., 2022). Understanding the concept of mathematical understanding education in early childhood can be applied through the introduction of elements such as appearance, color, counting methods, and arranging objects (Istiqomah et al., 2024; Rahmalia & Suryana, 2021; Trisia et al., 2024). Through play, children can improve their understanding of symbol of number. Games involving the concept of numbers are an integral part of mathematics learning and are important for advancing counting skills

which are essential in everyday activities. Ideas about numbers also form the foundation for further mathematical development and children's preparation for further education (Sadidah & Nursalim, 2013).

The introduction of the idea of symbols of number is significant for individuals to understand because it is the beginning of children's skills in recognizing mathematical concepts at the educational level that children will face (Nurhayati et al., 2020). In the early stages, children may be able to name numbers without really understanding their meaning. As children grow and experience, they will be able to recognize and understand symbol of number (Sumardi et al., 2017).

Based on initial observations at Uwais Al - Qorni Kindergarten of children aged 5-6 years, it appears that their ability to recognize symbol of number is quite low. From the 20 children observed, 12 of them still often misrepresented the numbers 1-10. When asked together, almost all children can show numbers correctly but when asked individually, there are still many children who are confused and confused. Apart from that, when asked to pick up objects according to the numbers shown, most children are not able to do it correctly. This is caused by the lack of use of learning media through games. With games, children can unconsciously learn about numbers and are able to remember the numbers they have learned.

In order to improve symbol of number identification skills in early childhood, stimulation needs to be provided. Providing stimulation definitely involves play activities which will encourage early childhood to attract children's interest in numbers (Andesta et al., 2024; Istiqomah et al., 2024). Introducing symbol of number to young children is also an idea from basic mathematics learning. When children understand symbol of number, children will feel interested in counting (Nurhayati et al., 2020).

Flash card media is a type of visual media in the form of picture cards. This card is shown to the child quickly. Flash cards, introduced by Glenn Doman, a brain surgeon from Philadelphia, Pennsylvania, are picture cards accompanied by words. According to Doman, flash cards are used by showing them and reading them quickly to children (Azhima et al., 2021).

Symbol of number through play can help children develop independent work skills, resilience, self-confidence, perseverance, and a spirit of never giving up. By involving children in the game, they not only feel happy playing but can also understand the idea of numbers without pressure, such as making jumps according to the given numerical value, arranging objects according to numerical order, or picking up objects according to the numerical value. Apart from these games, it is recommended to give children additional practice to improve their understanding of symbol of number. This flash card media can stimulate children to recognize numbers more quickly, increase children's interest in mastering the concept of numbers, and stimulate their intelligence and memory. Thus, the use of flash card media can help children understand basic mathematical concepts such as the concept of numbers and geometry, by displaying numbers and pictures of basic geometric shapes, as well as objects which have shapes like basic geometric shapes.

Other research conducted by Ayu states that the learning concept introduces symbol of number by using flash card with various displays which attract attention and can focus children's attention during the learning process. In the early stages of development, symbol of number are introduced to children to improve their ability to number (Ayu, 2016). Therefore, using flash card for children at an early age will have an effect on increasing the child's focus and attracting the child's attention, the child will not get bored easily and will be enthusiastic about learning.

The media in the form of print or audio visual as a communication tool should be as attractive as possible so that it can be seen, heard, etc. In the context of understanding symbol of number, the media used is visual media via flash card. Flash card refers to numbers printed on pieces of media made of paper or blackboard. The numbers can be moved according to the wishes of the word creator or word arrangement. Using flashcards in learning can be proactive in understanding numbers. This flash card is used as a learning medium so that children don't get bored, children can focus, and children want to pay attention to what the teacher says (Nurhayati et al., 2020).

Using Flash Card is an essential method in improving basic mathematical skills, especially in understanding numbers and symbols. The Flash card in learning activities can trigger new interests in children. With the help of this media, it becomes easier for children to recognize symbol of number, such as saying numbers according to the number symbol. Flash card media has an attraction that can make children more active and motivated to understand numbers more quickly. Apart from that, using flash card can also increase children's interest in understanding the idea of numbers as a whole. Flash card media is a learning tool presented in card format containing images. Media is a learning tool that can be used effectively in helping children identify and gain an understanding of the concepts being studied by using flash card as media (Widi Astuti et al., 2023).

## **Method**

The type of research which will be used in this research is descriptive qualitative research. Qualitative research allows researchers to gain a deep understanding of social reality through an inductive thinking process in which data is analyzed to discover underlying patterns and meaning. This is a research approach used to explore human or social phenomena by forming complex and in-depth images that can be explained in words. This approach involves reporting detailed views from data source informants, and is carried out in a natural context or background or in accordance with actual circumstances (Fadli, 2021). Researchers utilize a case study approach in which the case study approach is an approach that investigates a phenomenon carefully, in depth, and comprehensively. Meanwhile, according to Basuki, case studies are a type of research that focuses on a specific problem, case studies can use a qualitative or quantitative approach, and can pay attention to individuals, groups, or even society as a whole. Stake emphasizes that the main goal of a case study is to gain a detailed understanding of the case under investigation, not to create generalizations. The cases studied can have varying levels of complexity, and the duration of the research can be short or long, depending on the case being studied and the time available to collect data and analyze it (Arifien, 2016).

The subjects of this research are school principals, teachers, and children at one of the kindergartens in Palembang City, namely Uwais Al-Qorni Kindergarten. The subjects in this study are 20 children, namely 9 boys and 11 girls. The reason the researchers chose Uwais Al-Qorni Kindergarten as the research location was because during initial observations and interviews, their ability to recognize number concepts was quietly low. Of the 20 children observed, 12 of them still often made mistakes in indicating numbers 1-10. When asked together, almost all children can show numbers and count correctly. However, when asked individually, many children are still confused and confused. Apart from that, when asked to pick up objects according to the numbers shown, most children are not able to do it correctly. For these reasons, researchers are interested in conducting this research at the Uwais Al - Qorni Kindergarten.

In this research, researchers use data collection techniques in the form of observation, interviews and documentation. In this study, the data sources are the results of interviews and observations from school principals, teachers and children regarding flash cards in recognizing symbol of number. Presenting data means presenting and describing the results of field findings systematically and in accordance with a qualitative approach. The collected data will be analyzed using a thematic analysis approach. The initial stage is understanding the data in which the researcher collects information from observations and interviews. Oral data is then recorded in written form to facilitate understanding. Afterwards, in the acquisition stage in the initial coding step is the researcher. identify interesting concepts in the data. The process continues by looking for thematic patterns where various codes are organized into a theme that is considered to have potential. This stage is followed by a review of themes to form a coherent pattern (clear results) between themes and codes in the theme revision stage. After that, the researcher explains and perfects exploring the theme comprehensively according to the question of research. The latter involves writing creating a concise, rational narrative.

## Results and Discussion

The application of flash card to help children recognize symbol of number in this research is carried out through a series of the following steps: The teacher provides an introduction to the material as the first step in learning because every activity or lesson requires an adequate explanation of the material to be taught. Likewise, in planning, planning steps must be prepared nicely before implementing activities. Based on the opinion above, the researcher conclude that before starting this lesson, the teacher needs to provide an explanation regarding the material that will be discussed later so that the child will remain focused on paying attention to the teacher when delivering the lesson and the teacher must make a plan before delivering the material that day, such as prepare flash cards that dance, color or so on.

After that, the teacher chooses a theme which is appropriate for learning about flash cards which must attract the child's attention, such as the teacher introducing numbers from 1-10 using flash cards and equipped with attractive colors, pictures that attract the child's attention, and so on. Based on the opinion above, the researcher draws the conclusion that choosing the right theme in the learning process will make children quickly absorb what the teacher says because it will attract the child's attention and the child will focus on paying attention to the teacher but if the choice of theme is not appropriate/interesting then the child will also pay less attention and The child is not truly focused on what the teacher is saying.

Furthermore, the use of interesting media for children, for example flash card, will foster motivation and enthusiasm in them. This is in line with the results of observations made by researchers which showed that interesting tools or materials are used to motivate children in class when learning. The use of illustrated flash card provides benefits in developing initial numeracy skills, such as improving children's cognitive abilities, strengthening their understanding of numeracy concepts, and supporting potential development according to their individual abilities.

In accordance with the interview conducted by the researcher with Mrs. R that:

*"Yes, we use interesting learning media such as flash cards according to the child's needs, and we also choose the right theme according to the child's learning. After that we evaluate what the child has achieved" (Personal Interview with R Mother)*

From the results of the interactions which have been carried out, using interesting learning media, especially flash card media, will make children focus and follow the learning that has been delivered by the teacher and also choose the right theme according to the learning that the teacher will convey to the children and the last thing is to do it. evaluation to find out to what extent the child has absorbed learning during the learning process.

Learning media functions as the delivery of information during the learning process. Learning basically involves communication between teachers and children so it is important for learning media to be easily understood by children to facilitate interaction during learning. This learning media is used in the context of the learning process. Flash card or learning device is a tool or equipment used by teachers when teaching, in the form of cards containing numbers according to the topic being taught. These tools in the form of cards are useful for children in remembering lessons because flash card is able to create a deep impression in their minds, making them more difficult to forget. As children get younger, the need for visualization or concreteness (the use of more learning tools) becomes more important which children can touch, see, feel, and hear (Danauwiyah, 2019). Based on the results above, the researchers therefore concluded that the use of interesting learning media, especially flash card media, is believed to be able to increase children's motivation and enthusiasm for learning. It is also believed that the use of picture flash card can help in developing initial numeracy skills. This includes good cognitive abilities, a strong understanding of numeracy concepts, and optimal use of potential according to each child's abilities.

The results of observations made by researchers show that the teacher's role is not only limited to preparing media or learning materials for students, but also involves observing children's learning progress during the process of using flash card. This is because each child has varying abilities individually (Sujiono, 2013). From learning activities using flash card, children not only develop an understanding of the concept of counting but also explore other potentials they have. After that, the teacher evaluates the children's learning to recognize symbol of number through the use of flash cards. Evaluation is important at the end of the activity because through this



evaluation the teacher can assess the level of student understanding. Apart from that, evaluation also allows teachers to assess the extent of their success in delivering learning material.

When the child understands, the teacher sees to what extent the child can understand the material/use of flash card media that has been presented by the teacher, asks the child several questions and mentions numbers, distinguishes the same and different numbers, and so on. Based on the results of these observations and interactions, the researcher concludes that teachers at Uwais Al-Qorni Kindergarten had implemented flash card media in recognizing symbol of number as optimally as possible according to the views of experts, this media is able to speed up the process of recognizing numbers in children, increasing children's interest in understanding symbols. numbers, and stimulate the development of their intelligence and memory.

Using media that involves visual abilities can create easier for children to understand the material presented. Children will see it directly so that the knowledge transfer process will be better than if they did not use media (Andesta et al., 2024; Trisia et al., 2024). Using appropriate media will also help children to concentrate better (Novianti et al., 2022). Furthermore, the use of flash cards will indirectly help children understand the concept of numbers.

## **Conclusion**

Based on the results and discussion above regarding the introduction of symbol of number in group A at Uwais Al-Qorni Kindergarten in Palembang, it can be explained that the teacher has taken several steps as follows: 1) Choosing a theme that is appropriate to the learning program that has been prepared. 2) Plan and provide interesting media or teaching materials to convey to children. 3) Provide opportunities for children to play with flash cards. 4) Repeat the material that has been taught through play activities using picture flash cards. 5) Evaluate the activity of recognizing symbol of number using illustrated flash card. The teacher in this activity has taken various steps, including creating a comfortable and enjoyable classroom atmosphere, as well as preparing interesting media or teaching materials such as flash cards to support the learning process in the classroom.

## Thank-you note

The author would like to express his gratitude to the management of the journal Raudhatul Athfal: Journal of Early Childhood Islamic Education for giving the author the opportunity to present the results of the research that has been carried out. The author also would like to thank all participants who have contributed to the completion of this research.

## Reference

- Andesta, D., Muhtarom, Sartika, I. D., Wahyuni, D., Febrianti, & Dewi, K. (2024). Digital-based Logma educational game on early childhood logic-mathematics intelligence. *Cakrawala Dini: Jurnal Pendidikan Anak Usia Dini*, 15(1), 19–30. <https://doi.org/10.17509/cd.v15i1.66904>
- Arifien, S. A. (2016). Penggunaan Bimbingan dan Konseling Individu Dalam Menangani Permasalahan Transeksual Femalo to Male Dengan Menggunakan Pendekatan Feminisme (Studi Kasus di SMP Negeri 12 Bandar Lampung). *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Ayu, C. (2016). Jurnal paud tambusai. *Jurnal PAUD Tambusai*, 2(2), 36–42.
- Azhima, I., Meilanie, R. S. M., & Purwanto, A. (2021). Penggunaan Media Flashcard untuk Mengenalkan Matematika Permulaan Pada Anak Usia Dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 5(2), 2008–2016. <https://doi.org/10.31004/obsesi.v5i2.1091>
- Danauwiyah, N. M. (2019). Peningkatan Kemampuan Mengenal Lambang Bilangan melalui Media Kartu Angka pada Anak Kelompok A di TK Negeri Pembina Bengkayang. 199–206.
- Fadli, M. R. (2021). Memahami desain metode penelitian kualitatif. *Humanika*, 21(1), 33–54. <https://doi.org/10.21831/hum.v21i1.38075>
- Fitriana, D. (2022). Meningkatkan Perkembangan Kognitif Anak Usia Dini Melalui Alat Permainan Edukatif (Ape). *JCE (Journal of Childhood Education)*, 5(2), 580. <https://doi.org/10.30736/jce.v5i2.726>
- Istiqomah, D., Atika, N., Sartika, I. D., & Wahyuni, D. (2024). Pengaruh pendekatan pembelajaran STEAM terhadap kemampuan numerasi anak usia 4-5 tahun. *Jurnal Pendidikan Anak Usia Dini*, 4(1). <https://doi.org/10.33367/piaud.v1i1.xxxx>
- Novianti, R., Marega, D., & Wahyuni, D. (2022). Tebona : Permainan untuk melatih konsentrasi anak. *Raudhatul Athfal: Jurnal Pendidikan Islam Anak Usia Dini*, 6(1), 1–11. <https://doi.org/https://doi.org/10.19109/ra.v6i1.13292>
- Nurhayati, T., Assa, K., leuwinutug Batulayang Cililin, J., Bandung Barat, K., Studi Pendidikan Guru Pendidikan Anak Usia Dini, P., Keguruan Dan Ilmu Pendidikan, F., Siliwangi Bandung, I., & Jendral Sudirman Cimahi, J. (2020). *Jurnal*

- Ceria (Cerdas Energik Responsif Inovatif Adaptif) Meningkatkan Kemampuan Mengenal Lambang Bi-Langan Melalui Media Kartu Angka Di Kelompok a Kober Assa'Adah.* 3(5), 2714–4107.
- Rahmalia, D., & Suryana, D. (2021). Pengembangan Media Papan Flanel untuk Meningkatkan Kecerdasan Logika Matematika pada Anak. *Jurnal Basicedu*, 5(2), 605–618.
- Retnaningrum, W., & Umam, N. (2021). Perkembangan Kognitif Anak Usia Dini Melalui Permainan Mencari Huruf. *Jurnal Tawadhu*, 5(1), 25–34.
- Sadidah, S., & Nursalim, M. (2013). Penggunaan Media Kartu Bergambar Untuk Meningkatkan Kemampuan Siswa Dalam Mengenal Konsep Bilangan Dan Lambang Bilangan 1-10 Pada Siswa Kelompok A Tk Krisnamurti III Surabaya. *Jurnal Program Studi PG-PAUD*, 2(2), 9.
- Sujiono, Y. N. (2013). *Konsep dasar PAUD*. PT Indeks.
- Sumardi, S., Rahman, T., & Gustini, I. S. (2017). Peningkatan Kemampuan Anak Usia Dini Mengenal Lambang Bilangan Melalui Media Playdough. *Jurnal Paud Agapedia*, 1(2), 190–202. <https://doi.org/10.17509/jpa.v1i2.9359>
- Trisia, E., Sartika, I. D., & Murtopo, A. (2024). Pengaruh penggunaan metode inquiry terhadap kemampuan mengenal bilangan pada anak usia 4-5 tahun di kelas A PAUD Berlian desa Suka Damai kecamatan Pangkalan Lampam kabupaten Ogan Komering Ilir. *Jurnal Ilmiah Cahaya Paud*, 6(1), 122–136. <https://doi.org/https://doi.org/10.33387/cahayapd.v6i1.7459>
- Wahyuni, D., Sartika, I. D., & Novianti, R. (2022). Standar alat bermain dan kualitas satuan PAUD. *Raudhatul Athfal: Jurnal Pendidikan Islam Anak Usia Dini*, 6(2), 106–119. <https://doi.org/https://doi.org/10.19109/ra.v6i2.15000> Standar
- Widi Astuti, A., Syafrudin, U., & Oktaria, R. (2023). Pengaruh Penggunaan Media Kartu Angka Terhadap Kemampuan Berhitung Permulaan Anak Usia 5-6 Tahun. *Jurnal Pendidikan Islam Anak Usia Dini*, 6(1), 39–48.
- Yuliana, L. (2013). Penanaman nilai-nilai moral pada anak usia dini. *Jurnal Ilmiah WUNY*, 15(1).