

# Using Number Card Media to Improve Mathematics Understanding Among Second Grade Students at SD Negeri 99 Palembang

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## Abstrak

Penelitian ini bertujuan untuk mendeskripsikan penggunaan media kartu angka dalam meningkatkan pemahaman matematika siswa kelas II di SD Negeri 99 Palembang. Penelitian ini menggunakan pendekatan deskriptif dengan teknik pengumpulan data melalui observasi, dokumentasi, dan refleksi selama proses pembelajaran. Fokus penelitian diarahkan pada pemahaman siswa terhadap konsep bilangan dan operasi hitung sederhana serta keterlibatan siswa selama kegiatan pembelajaran. Hasil penelitian menunjukkan bahwa penggunaan media kartu angka membantu siswa lebih mudah mengenal simbol angka, menyusun urutan bilangan dengan benar, dan menyelesaikan operasi hitung sederhana. Selain itu, siswa menjadi lebih aktif, antusias, dan terlibat dalam proses pembelajaran. Penggunaan media kartu angka juga menciptakan suasana belajar yang lebih menarik dan bermakna. Oleh karena itu, media kartu angka dapat digunakan sebagai salah satu alternatif media pembelajaran untuk meningkatkan pemahaman matematika siswa di sekolah dasar.

**Kata kunci:** Media Kartu Angka, Pemahaman Matematika, Pembelajaran Matematika, Sekolah Dasar.

## Abstract

This study aimed to describe the use of number card media in improving students' understanding of mathematics in Grade II at SD Negeri 99 Palembang. The study used a descriptive approach with data collection techniques through observation, documentation, and reflection during the learning process. The focus of the study was directed at students' understanding of number concepts and simple arithmetic operations as well as student involvement during learning activities. The results showed that the use of number card media helped students recognize number symbols more easily, arrange numbers correctly, and solve simple arithmetic operations. In addition, students became more active, enthusiastic, and engaged in the learning process. The use of number card media also created a more interesting and meaningful learning atmosphere. Therefore, number card media can be used as an alternative learning medium to improve students' understanding of mathematics in elementary school.

**Keywords:** Number Card Media, Mathematics Understanding, Mathematics Learning, Elementary School.

## 1. INTRODUCTION

Education is a conscious effort carried out to develop students' potential so that they possess intellectual abilities, skills, and good character. Through education, students are expected to gain learning experiences that support both their academic and social development. Education also plays an important role in shaping qualified human resources who are able to face the development of the times. In a broader sense, education is an effort to develop physical and spiritual abilities in accordance with the values prevailing in society (Hasbullah, 2022; Rojo-Ramos et al., 2025; Suyato et al., 2024).

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Basic education is an important stage in developing students' thinking skills and character. At the elementary school level, students begin to acquire various knowledge and skills that become the foundation for learning at the next level of education. Therefore, the learning process needs to be designed effectively so that students obtain optimal learning experiences. Basic education has an important role in equipping students with the abilities needed to face future developments and challenges (Mardhiyah et al., 2021; Uemura & Comini, 2022; Xu et al., 2017).

Mathematics is one of the subjects that has an important role in developing students' thinking abilities. Mathematics learning does not only focus on arithmetic skills, but also trains logical, systematic, critical thinking, and problem-solving skills that can be applied in everyday life. Therefore, mathematics learning needs to be introduced from elementary school as the basis for developing students' abilities at higher levels of education (Rahmah & Hayati, 2023; My Nguyen et al., 2024; Canbazoglu & Tarim, 2020).

However, in the implementation of mathematics learning in elementary schools, there are still various obstacles that affect students' understanding of the material being studied. Based on observations during the learning process in Grade II at SD Negeri 99 Palembang, several students were still found to have difficulties in understanding number concepts and simple arithmetic operations. Some students were not yet able to recognize number symbols correctly, arrange numbers in sequence, and solve simple arithmetic operations.

In addition, the learning process, which was still dominated by the lecture method, caused students to become less active and easily bored during learning activities. This condition indicates the need for learning media that are more interesting and suitable for the characteristics of elementary school students (Wulandari, Izzatin, & Mucti, 2023; Hasiru et al., 2021).

At the elementary school age, students more easily understand material through concrete objects and direct activities. Therefore, it is necessary to use learning media that can help students understand concepts in a more concrete and interesting way.

Learning media is one alternative that can be used to support the mathematics learning process. According to Wahyuningtyas and Sulasmono (2020), the use of learning media can increase students' activeness and help create more meaningful learning.

Learning media are tools used to assist the delivery of material so that learning becomes more effective and interesting. The use of learning media can help students understand material more concretely, making learning objectives easier to achieve (Nurrita, 2021)(Ada et al., 2021; Suryani et al., 2018).

One of the learning media that can be used in mathematics learning is number card media. Number card media are cards used to help students recognize numbers and understand number concepts more easily. The use of number card media allows students to learn through play-based activities while studying, making learning more enjoyable. This media can be used in various activities such as matching numbers, arranging number sequences, recognizing number symbols, and performing simple arithmetic operations. These activities provide opportunities for students to be actively involved during the learning process (Fitria & Diana, 2021).

Based on the explanation above, this study aims to determine the use of number card media in improving the mathematics understanding of Grade II students at SD Negeri 99 Palembang. This study is expected to provide an overview of the effectiveness of using number card media in helping students understand number concepts and increasing student involvement during the mathematics learning process.

## **2. LITERATURE REVIEW**

### **1. Learning Media**

Learning media are tools used in the learning process to help teachers deliver material to students so that learning becomes more effective, interesting, and easier to understand. According to Ani Daniyati et al. (2023), learning media are used to improve the effectiveness of learning and to help clarify the concepts being taught. In addition, learning media can also increase students' attention, interest, and curiosity during the learning process.

According to Fadilah et al. (2023), learning media help students learn in a more enjoyable and effective way. Therefore, learning media can help students understand material more concretely so that learning objectives can be achieved properly.

### **2. Number Card Media**

Number card media are learning media in the form of cards containing number symbols and are used to help students recognize numbers and understand basic mathematical concepts. Number card media are included as visual media that can help students understand material concretely.

According to Fitri (2023), the use of interesting learning media can help improve students' attention and activeness in learning. In addition, Pramudita (2023) states that mathematics learning media can help students understand abstract concepts more easily.

Number card media have the advantage of helping students become more active, enthusiastic, and able to understand number concepts more easily. However, the use of this media requires good preparation so that the learning process remains well-directed.

### **3. Mathematics Learning**

Mathematics learning in elementary school aims to help students understand number concepts and develop logical and systematic thinking skills. In mathematics learning, teachers need to use interesting teaching methods and learning media so that students can understand the material more easily.

According to Pramudita (2023), the use of learning media in mathematics can help improve students' understanding and learning outcomes. Therefore, the use of number card media can make mathematics learning more interesting and meaningful for elementary school students.

### **4. Understanding**

Understanding is the ability of students to comprehend, explain, and apply the material they have learned. Understanding is not limited to memorization, but also includes the ability to use concepts in everyday life.

According to Inayah and Safari (2024), mathematical understanding is the ability of students to receive and apply mathematical concepts in both the learning process and everyday life.

With good understanding, students will find it easier to solve problems and comprehend learning materials.

### **3. METHOD**

This study employed a qualitative descriptive method. This method was used to describe the use of number card media in improving the mathematics understanding of Grade II students at SD Negeri 99 Palembang during the implementation of the School Field Introduction Program (PLP).

The study was conducted at SD Negeri 99 Palembang, located on Jalan Pertahanan, 16 Ulu, Seberang Ulu II District, Palembang City, South Sumatra. The research activities were carried out in the even semester of the 2025/2026 academic year during the PLP implementation, from March 2, 2026, to May 15, 2026.

The subjects of the study were the students of Grade II A at SD Negeri 99 Palembang, consisting of 28 students, including 15 female students and 13 male students. The class was selected based on the results of preliminary observations which showed that there were still students who experienced difficulties in understanding number concepts and simple arithmetic operations.

Data collection techniques were carried out through observation, documentation, and direct teaching practice (Herdayati & Syahrial, 2019; Susanto et al., 2023). Observation was conducted to identify the condition of mathematics learning in the classroom as well as the level of students' understanding of number materials. Documentation was used to obtain supporting data in the form of photographs of learning activities, teaching materials, and student data. Teaching practice was conducted by applying number card media in the mathematics learning process.

The number card media were used in several learning activities, such as introducing number symbols, arranging number sequences, matching numbers, reading numbers, and performing simple arithmetic operations. In its implementation, the teacher first explained how to use the number card media to the students. Furthermore, students were asked to take number cards according to the teacher's instructions and participate actively in learning activities both individually and in groups.

The data analysis technique was conducted descriptively by describing the results of observations during the learning process. The data were analyzed based on the level of activeness, learning interest, and students' understanding of mathematics material after the use of number card media in learning. The results of the analysis were then explained in descriptive form to determine the effectiveness of using number card media in improving the mathematics understanding of Grade II students at SD Negeri 99 Palembang.

### **4. RESULT AND DISCUSSION**

The results of the study showed that the use of number card media in mathematics learning in Grade II A at SD Negeri 99 Palembang had a positive impact on students' understanding of number concepts. Before the use of number card media, some students still experienced difficulties in recognizing number symbols, reading numbers, and arranging

numbers in the correct order. In addition, students appeared less active and easily became bored during the learning process.

After the implementation of number card media in learning activities, students became more active and enthusiastic in participating in classroom activities. Students were able to arrange numbers, match numbers, read numbers, and write numbers better. The use of number card media also helped students become more confident when answering questions and participating in activities in front of the class.

In addition to improving mathematical understanding, number card media also created a more enjoyable and interactive learning atmosphere. Students became more active in asking questions, answering the teacher's questions, and directly participating in learning activities. Thus, the use of number card media was effective in helping improve the mathematics understanding of Grade II students at SD Negeri 99 Palembang.

The use of number card media in mathematics learning had a positive influence on the students' learning process. Number card media helped students understand number concepts more concretely because they could directly see and hold the number cards used in learning activities. This is in accordance with the characteristics of elementary school students, who more easily understand material through concrete objects and direct activities.

The use of learning media that are suitable for the characteristics of elementary school students can help students understand material in a more concrete and meaningful way. Learning media are also able to increase students' attention and learning interest during the learning process (Nurrita, 2021).

Through the use of number card media, students not only learned by listening to the teacher's explanations, but were also actively involved in learning activities. Students were invited to arrange numbers, read numbers, match numbers, and answer questions using number card media. These activities made the learning atmosphere more interesting and less monotonous, enabling students to understand the material more easily.

In addition, learning that involves direct activities can help students understand learning concepts more easily. Elementary school students are more likely to understand material through concrete activities and direct experiences during the learning process (Sari & Prasetyo, 2022).

The results of this study indicate that the use of creative and innovative learning media can help improve students' mathematical understanding. Furthermore, the use of number card media also helped increase students' self-confidence and courage in participating in learning activities. Students appeared more active during the learning process and were easier to guide in learning activities.

The findings of this study are in line with the opinion of Wahyuningtyas and Sulasmono (2020), who stated that the use of learning media can help improve students' activeness and understanding during the learning process. Therefore, number card media can be used as an effective alternative mathematics learning medium for elementary school students, especially in number concept materials.

## 5. CONCLUSION

Based on the results of the study that has been conducted, it can be concluded that the use of number card media is effective in improving the mathematics understanding of Grade II students at SD Negeri 99 Palembang. Number card media helped students more easily recognize number symbols, read numbers, arrange number sequences, and understand number concepts better.

The use of number card media was also able to increase students' activeness and interest in learning during the learning process. Students appeared more enthusiastic, more confident, and more active in participating in mathematics learning activities. In addition, the learning atmosphere became more enjoyable because students learned through play-based learning activities. Therefore, number card media can be used as an effective and interesting alternative mathematics learning medium to help improve the understanding of elementary school students, especially in number concept materials.

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