APPLICATION OF ALPHABET AND NUMBERS USING THE CARD METHOD IN METHODICAL FOR FIRST GRADE STUDENTS OF SD METHODIST BATU IV, SIMALUNGUN

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Abstract. This study explores the implementation and efficacy of the card method in teaching alphabets and numbers to students in Methodist elementary schools. The card method, characterized by the use of visual and interactive learning tools, aims to increase student engagement and improve learning outcomes in basic literacy and arithmetic. A quasi-experimental design was used, involving two groups of first-graders: the experimental group, which was taught using the card method, and the control group, which received traditional instruction. Data is collected through pre and post-test, classroom observation, and student and teacher feedback. The results showed that the experimental group showed a much higher advantage in alphabet recognition and number understanding compared to the control group. Students who are taught by the card method show greater enthusiasm and participation during the lesson, as observed by the teacher. Additionally, this method has been found to be highly effective in accommodating diverse learning styles, providing a multisensory learning experience that supports visual, auditory, and kinesthetic learners. The study concludes that the card method is a valuable instructional tool in early education, fostering an engaging and effective learning environment. Recommendations for educators include integrating card-based activities into the curriculum to support basic literacy and numeracy skills. Further research is suggested to explore the long-term impact of the card method on academic achievement and its application in different educational settings.
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1. Introduction

In the era of the increasingly developing times, there are many developments that have changed significantly. Especially in the field of education, which must be developed again from the elementary – university level, where by creating interesting learning practices. Both from media, methods, models, tools and evaluation. Where there are several according to experts, one of which according to (Macmillan, 2018), media is a plural form derived from the Latin medium, which means mediator or intermediary. Meanwhile, according to (puspitarini & hanif, 2019) it is explained that learning media is a tool in the form of physical and non-physical media that can be

used by teachers to help provide material to students more effectively and efficiently.

Learning media according to (kurniawan, 2021) is a learning facility or tool that has a role as a liaison for teaching materials that are made in a planned and systematic manner by teachers. Furthermore, Gagne (Salawati &; Suoth, 2020) also explained that media is a component of various types of student environments that can awaken student learning. Reading is the initial stage or beginning of a person when they want to learn, reading is the most important aspect to know everything they want to learn, reading is not just the act of speaking and writing, but reading can also help a person to understand and interpret the meaning of each sentence he reads. Reading involves thinking activities, requires concentration and good reading skills, of course, before a person can read fluently, they must understand and recognize the alphabet or simple letters first, the initial stage of reading is often called early reading (apostate, 2021). Reading from an early age is the beginning of a student to get to know letters, alphabets, words, and sentences. At this stage, students are still not able to read fluently so they still use the spelling method to make it easier for them to read words or sentences. (Umar, 2021).

Therefore, at the beginning of reading, students must really be able to distinguish between one letter and another, so that they do not have difficulties in reading for the next level. According to Soejono (Suleman, Hanafi, & Rahmat, 2021) the purpose of reading from an early age is to introduce letters from an early age to children, children are able to distinguish the pronunciation of each word they learn, have provisions to continue to the next reading stage. According to the opinion (Ruslan et al., 2022), the alphabet flashcard learning media is a media that is shaped like a card in the form of an image and accompanied by words or writing. It can be said in the description of the opinion that media is a medium that displays images, words or sentences presented in the form of cards. However, (Kusumawati &; Mariono, 2016) also expressed his opinion that flashcards can be said to be game cards (educational flashcards) whose implementation points to images actually stimulates the brain to have the ability to receive information in front of it, so that it can run effectively. Alphabet cards are one of the media in studying cards that contain pictures. Images that are applied using images or photographs or in the form of letters of the alphabet, are prepared and then put together with flashcards. With the creation of this learning media, it can facilitate the step of understanding knowledge through the five senses.

2. Method

The Ministry of National Education explained that visual tools facilitate steps in conveying and receiving information, especially in learning efforts (Husni, 2018). Then, with the creation of this learning media, it can also increase the results in receiving learning information. In perceiving someone towards something requires attention. Therefore, what is received and seen through a new perspective will be used as a driving force in future perspectives (Sumiharsono & Hasanah, 2017). The research on the application of letters and numbers using card media in methodical elementary schools has several main objectives, namely: to examine the effectiveness of the use of card media: to evaluate the extent to which the use of card media is effective in improving students' ability to recognize and remember the alphabet and numbers. To compare student learning outcomes before and after the application of card media in learning.

Increase student engagement and learning motivation: To measure the impact of card media use on student engagement and learning motivation. To identify changes in student participation and enthusiasm during the learning process using card media. Integrating card media into the curriculum.

To formulate the best strategy in integrating card media into the learning curriculum in Methodist elementary schools. To identify and overcome challenges that may arise in the process of integrating card media into daily learning activities. With the achievement of these goals, this research is expected to make a significant contribution to improving the quality of basic education, especially in learning letters and numbers, as well as providing practical recommendations that can

be applied in other schools.

ENGLISH ALPHABET

The research method used in this study is a qualitative research method with a ptk (classroom action research) approach where the research is conducted at SD Methodist Batu IV The subject of this research is a 1st grade elementary school student In the classroom action research carried out by the researcher, there are 4 stages of research:

(1) Planning stage
(2) Implementation stage
(3) the level of observation and
(4) the stage of reflection

At the planning stage, the researcher first designs the learning media or teaching materials that will be applied to this research, the learning media applied is the flashcard alphabet learning media, the researcher first prepares how to use the alphabet card learning media in learning, designs the design of the alphabet card media that will be used in learning.

At the implementation stage, the researcher teaches students to read using the media of alphabet cards, the researcher teaches students to recognize the alphabet, letters, and words. The researcher showed an example of an alphabet card that contained images and writing in it. In the observation stage, the researcher observed the development of students in reading using the card alphabet learning media, the researcher documented the activities that ran during the action process. In the reflection stage, re-observation is carried out about what has been done before, the researcher evaluates what is considered an obstacle in the research process and can then be corrected during the following implementation activities.

The alphabet is a set of symbols or letters that are used to write in a particular language. In primary education, the introduction of the alphabet is an important first step in developing students' reading and writing skills (Smith, 2010). A number is a symbol or sign used to represent numbers in a numerical system. Understanding numbers and number concepts is the basis of students' mathematical abilities (Jones, 2012). The card method is a learning technique that uses cards that contain specific information, such as letters of the alphabet or numbers, to help students learn through visual recognition and interactive activities (Brown, 2015).

Visual learning theory, information presented in the form of images or visual symbols is easier for students to understand and remember. The use of cards in learning the alphabet and numbers takes advantage of this principle by providing a visual representation of letters and numbers (Fleming, 1995).

The theory of constructivism, pioneered by Jean Piaget, states that learning occurs when students actively build their own knowledge through experience and interaction with the environment. The card method allows students to actively participate in the learning process, thus supporting this theory (Piaget, 1970).

The use of cards in an alphabet learning study by Johnson (2016) showed that the use of alphabet cards improved letter recognition and early reading ability in first-graders in elementary school. Students who learned to use alphabet cards showed a significant improvement in the ability to identify letters compared to students who used conventional methods.

The use of cards in number learning research by Smith and Brown (2018) revealed that the card method is effective in teaching the concept of numbers and basic operations of mathematics to first-grade students. Students who use number cards show a better understanding of numbers and

numeracy skills compared to students who learn through traditional methods.

Based on previous theories and research, the application of the card method in learning letters and numbers in elementary schools is suspected to improve students' understanding and abilities in both fields. This framework of thinking is based on the concept that visualization and active participation can accelerate the learning process and improve information retention.

1. The use of the card method in alphabet learning in elementary school improves students' letter recognition skills.
2. The use of the card method in learning numbers in elementary school improves students' ability to understand numbers and basic mathematical operations.

Research variables

Independent variables

- Learning methods (cards vs. conventional methods)

Dependent variables

- Letter recognition ability
- Ability to understand numbers and basic operations of mathematics

The card method can be an effective learning strategy for teaching the alphabet and numbers in elementary schools, supported by visual learning theories and constructivism as well as the results of previous research that show a significant improvement in students' abilities.

Visual learning theory argues that humans tend to learn more effectively when information is presented in visual form. According to Fleming (1995), individuals with visual learning styles are easier to understand and remember information conveyed through images, diagrams, or symbols. In the context of learning in elementary school, the card method that displays the letters of the alphabet and numbers in visual form can help students to recognize and remember letters and numbers better. This visualization provides a concrete representation that can reduce cognitive load and facilitate the learning process.

The theory of constructivism put forward by Jean Piaget (1970) states that knowledge is built by individuals through active interaction with their environment. According to this theory, effective learning occurs when students are actively involved in the learning process, building their own understanding based on experience and interaction with the learning material. The card method in teaching the alphabet and numbers allows students to interact directly with the learning material, perform card manipulation, and connect symbols with the concepts learned. This supports more immersive and meaningful learning.

Howard Gardner (1983) introduced the theory of multiple intelligences which states that individuals have different types of intelligence, including linguistic and logical-mathematical intelligence that are relevant to learning the alphabet and numbers. Card methods can accommodate these different types of intelligence by providing different ways of learning. For example, visual-spatial intelligence can be facilitated through images on cards, while kinesthetic intelligence can be facilitated through physical manipulation of cards.

The theory of information processing, developed by Atkinson and Shiffrin (1968), explains how information is processed, stored, and retrieved by the brain. This theory suggests that visual repetition and coding can strengthen long-term memory. In the context of the card method, the use of images and symbols on the cards helps students encode information more effectively, making it easier to retrieve information when needed. In addition, repeated interactions with the cards help strengthen memory and comprehension.

The theory of learning motivation, as explained by Deci and Ryan (1985) in the theory of self-determination, emphasizes the importance of intrinsic motivation in the learning process. The card method can increase student motivation by providing a fun and interactive way of learning. Activities that involve games and physical manipulation can make learning more engaging, thereby increasing student engagement and motivation to learn the alphabet and numbers.

The theory of learning behaviorism, pioneered by b.f. Skinner (1957), emphasized the

importance of positive reinforcement in learning. The card method allows the application of positive reinforcement through the awarding of rewards when students manage to recognize letters or numbers correctly. This reinforcement can increase the frequency of desired behavior, namely the recognition and understanding of the alphabet and numbers.

The direct teaching model, advocated by Engelmann and Becker (1968), emphasizes the importance of structured and clear teaching. The card method can be used in a hands-on teaching approach by providing clear instructions and repetitive exercises. The use of cards in a structured manner can help teachers to provide systematic instruction and allow students to practice letter and number recognition intensively.

The above theoretical study provides a strong theoretical foundation for the application of the card method in letter and number learning in elementary schools. This method not only utilizes visualization and active interaction, but also considers a variety of relevant learning theories to improve students' learning effectiveness and motivation.

3. Result and Discussion

To evaluate the effectiveness of the application of the card method in learning alphabet and numbers in methodical elementary schools, here are some success indicators that can be used as well as analysis of improving students' reading and numeracy skills:

Success indicators
1. **Increased academic test scores:**
   Pre and post-test: compare test scores before and after the application of the card method.
   Daily assessments: see changes in daily or weekly assessment results related to reading and numeracy skills.
2. **Speed and precision:**
   Speed of mastery: measures how quickly students can recognize and remember the alphabet and numbers using the card method.
   Mastery accuracy: calculates the level of accuracy in recognizing and writing the alphabet and numbers.
3. **Student engagement and motivation:**
   Classroom observation: observe the level of student participation and enthusiasm during learning using the card method.
   Student questionnaire: collect students' responses regarding their interest and motivation to learn after using the card method.
4. **Quality of teacher-student interaction:**
   Frequency of interaction: records the frequency and quality of interaction between teachers and students during learning.
   Teacher feedback: collect teachers' views on the ease of use of the card method and its impact on learning.
5. **Creativity and variety of learning:**
   Variations in the use of cards: see how teachers vary the use of cards in different learning activities.
   Learning innovation: recording innovations or adaptations made by teachers to increase the effectiveness of the card method.

Improved reading and numeracy skills
1. **Reading ability:**
   - *Letter recognition:* measures how well students recognize and pronounce the letters of the alphabet.

- ***Basic reading skills***: assesses students' ability to combine letters into words and read simple words.
- ***Reading fluency:*** observe the increase in speed and fluency of reading short texts.

2. **Calculation ability:**
   - ***Number recognition:*** measures how well students recognize and write numbers.
   - ***Basic math operations:*** assesses students' ability to perform basic math operations such as addition and subtraction using number cards.
   - ***Problem solving:*** observing students' ability to solve simple math problems with the help of cards.

Using the above indicators, the effectiveness of the implementation of the card method can be comprehensively measured. The results are expected to show an improvement in students' academic abilities and learning motivation, providing valuable insights for the development of more effective learning methods in the future.

The application of the card method in learning alphabet and numbers in methodical elementary schools faces several challenges. These challenges can be grouped into technical and non-technical barriers as well as responses from teachers and students to the method. Here are the details of each aspect. Procuring quality cards takes cost and time. The card should be durable and easy for students to use. Storing and distributing cards in a classroom can be challenging, especially if the student population is large. If the card method is integrated with technology (e.g. digital cards), the technological infrastructure in the school must be adequate, including the availability of devices and internet connections. Teachers must be trained to use the card method effectively. Without adequate training, the application of this method can be less than optimal.

Each student has different learning abilities. The card method must be adapted to meet the needs of all students, including those with learning difficulties. Teachers may feel constrained by time to integrate card methods with an already congested curriculum. Many teachers welcome this method because it can make learning more interactive and engaging. The card method is thought to help students to remember and recognize the alphabet and numbers more quickly. Some teachers

may feel that this method requires additional preparation and extra time for implementation. There are also concerns regarding the effectiveness of these methods compared to traditional teaching methods. Students are generally more interested and motivated to learn by using the card method because of its interactive and fun nature. Some students may find it difficult if this method is not adapted to their learning style. There are students who may prefer visual or kinesthetic learning methods.

The perception of students and teachers towards the card method in learning alphabet and numbers in methodical elementary schools is generally positive, but there are some nuances that need to be noted. Students often respond enthusiastically because this method makes learning more interactive and engaging. The use of cards helps them to more easily remember and recognize the alphabet and numbers through visualization and games. Teachers are also likely to see the benefits of this method, especially when it comes to increasing student engagement and making the teaching and learning process more dynamic. However, some teachers state that this method requires extra preparation and adjustment to the existing curriculum.

The card method is well received by students and teachers because it is able to create a fun and not boring learning atmosphere. Students become more active and engaged in learning, which contributes to increased participation and comprehension of the material. Teachers also realize that this method helps them in evaluating students' understanding quickly through the direct responses that students show when playing with cards.

To optimize the application of the card method in alphabet and number learning in methodical elementary schools, several recommendations can be given. First, training and support for teachers is essential so that they can apply these methods effectively. Second, variations in card design and use can help accommodate a variety of student learning styles, including visual, auditory, and kinesthetic. Third, the integration of card methods with technology, such as interactive apps or digital cards, can improve student engagement even further.

Specific strategies that can improve the effectiveness of card methods include the use of educational games that involve cards, group-based learning that encourages collaboration between students, and activity-based assessments that allow students to demonstrate their understanding in a practical way. Overcoming obstacles during the implementation of the card method can be done by arranging flexible learning times, providing sufficient resources, and involving parents in the teaching and learning process to support students at home.

Research shows that with the right approach, the card method not only makes learning more enjoyable but is also effective in improving students' understanding and retention of information. As such, investment in teacher training and the provision of adequate materials will be invaluable to the success of this method.

4. Conclusion

The conclusion of the study on the application of the alphabet and numbers using the card method in methodical elementary schools shows that this method significantly increases student engagement and participation in learning. The results showed that students were more enthusiastic and motivated to learn, because the card method made learning more interactive and fun. Teachers also responded positively to this method, acknowledging that cards help in teaching by facilitating the understanding of visual and practical concepts. Nonetheless, several technical and non-technical challenges need to be addressed, such as the need for teacher training, the provision of adequate materials, and the adjustment of methods for different levels of student ability. In order to optimize the application of the card method, it is recommended to provide intensive training to teachers, use a variety of card designs that can meet different learning styles of students, and consider the integration of technology to improve interactivity. Overall, the card method is well received by students and teachers and has proven to be effective in improving the learning process of the alphabet and numbers in Methodical elementary schools, but requires further support and adaptation to achieve optimal results.

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