

## Effectiveness of Using Canva Interactive Media on Flat Buildings Material in Class III SDN Cijantung 01

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### ABSTRACT

**Objective:** This study aims to analyze the effectiveness of using interactive learning media Canva in improving the learning outcomes of third-grade students at SDN Cijantung 01 on the topic of two-dimensional shapes. **Method:** The method used is Classroom Action Research (CAR) conducted in two cycles. Data were collected through observation, learning achievement tests, and student response questionnaires. **Result:** The results showed that Canva media increased student engagement, clarified the material, and made the learning process more enjoyable. The average student score increased from 66 before the cycles to 81 at the end of the second cycle. **Novelty:** This proves that Canva interactive media is effective for teaching mathematics in elementary schools, offering a modern, student-centered approach that enhances both understanding and enthusiasm in mathematical learning.

## INTRODUCTION

Learning mathematics at the elementary school level is an important foundation in shaping the ability to think logically, systematically, and critically in students [1], [2], [3], [4]. One of the basic materials in learning mathematics in grade III is flat shapes, which includes the introduction of geometric shapes such as squares, rectangles, triangles, circles, and others. This material requires not only conceptual understanding but also students' visual and spatial abilities. However, in reality, there are still many students who have difficulty in understanding the concept of flat shapes due to the delivery of material that is less interesting and the lack of learning media that supports optimal visualization of concepts.

In today's digital era, the use of interactive learning media is one of the strategic solutions to improve the effectiveness of learning in the classroom [5], [6]. One digital media that is quite popular and easy to use by teachers is Canva. Canva is an online graphic design platform that allows users to create various forms of visual media such as posters, infographics, presentations, and animated videos. The interactive features offered by Canva greatly support the presentation of material in an interesting, fun, and easy-to-understand manner for students, especially at the primary education level.

In practice at SDN Cijantung 01, mathematics learning still tends to be conventional, using the lecture method and textbooks as the main source. This has an impact on students' low interest in learning and understanding of flat building material. Therefore, learning innovations are needed that can attract students' attention while helping them understand the material more thoroughly. The use of Canva interactive media in learning

is expected to create a more active and fun learning atmosphere and improve student learning outcomes.

Based on initial observations conducted in class III of SDN Cijantung 01, it was found that most students showed higher enthusiasm when learning using visual or interactive media. Teachers also stated that the delivery of material through Canva media is more effective in explaining the shape, characteristics, and differences between flat shapes compared to verbal explanations alone. However, there are not many studies that systematically measure the effectiveness of using Canva in improving students' understanding of mathematics materials, especially flat shapes.

Based on these problems, the researcher is interested in conducting a study with the title "The Effectiveness of Using Canva Interactive Media on Flat Building Material in Class III SDN Cijantung 01". This study aims to determine the extent to which the use of Canva can increase students' interest in learning and understanding of the concept of flat shapes, as well as a form of contribution in the development of digital-based learning media in elementary schools.

Based on the background that has been described, the problem formulation in this study is to focus on the use of Canva interactive media effectively in increasing students' understanding of flat building material in class III SDN Cijantung 01. This study reveals how students respond to the use of Canva interactive media in the mathematics learning process, especially on flat building material, and is there an increase in student learning outcomes after learning using Canva interactive media compared to before its use?

This study aims to determine the effectiveness of using Canva interactive media in improving students' understanding of flat building material in class III SDN Cijantung 01. This study also describes students' responses to the use of Canva interactive media in learning mathematics, especially flat building material. This study also analyzes the improvement of student learning outcomes after learning using Canva interactive media compared to before its use.

This research is expected to make a good contribution, both theoretically, which is useful for enriching scientific studies on the use of interactive learning media, especially Canva, in learning mathematics in elementary schools. In addition, the results of this study can be a reference for similar research in the future. For practical benefits, this research can provide an alternative learning media that is interesting and effective to improve students' understanding of flat building material, and encourage teachers to be more creative in utilizing digital technology. For Teachers: Providing alternative learning media that is interesting and effective to improve students' understanding of flat building materials, as well as encouraging teachers to be more creative in utilizing digital technology. For Students: Helping students understand flat building materials in a more visual, interactive, and fun way, so as to increase their motivation and learning outcomes. For Schools: Encouraging the development of technology-based learning innovations in the school environment to improve the quality of the teaching-learning process.

## **Theoretical Study**

### **Definition of Learning Media**

Learning media is anything that can be used to channel messages or information from teachers to students so that it can stimulate students' thoughts, feelings, attention, and learning interests. According to [7], learning media is anything that can be used to channel messages from the sender to the recipient so that it can stimulate students' thoughts, attention, and interest in teaching and learning activities. [8] states that interactive media is media that allows two-way communication between the user and the media itself. In learning, this media provides opportunities for students to interact with the material actively. [9] states that interactive media based on information and communication technology allows for more flexible, interesting, and contextual learning. Students become more independent in constructing knowledge through direct interaction with learning content.

### **Interactive Media in Learning**

Interactive media is media that allows direct interaction between the user and the content presented. This media is usually based on digital technology and allows students to explore the material independently or together. In the context of learning in elementary schools, interactive media is very important because it can facilitate students' visual and kinesthetic learning styles that are dominant at that age. Thus, the use of interactive media can strengthen understanding of concepts and increase students' active participation. [10] state that learning media are physical tools used to convey learning content, such as books, videos, pictures, and computers. Gerlach & Ely (1980) explain that media are all forms and channels used to convey messages or information. [11] argues that learning media provide concrete experiences, stimulate attention and motivation to learn, and accelerate the process of student understanding of the material.

### **Canva as Interactive Learning Media**

Canva is a web-based graphic design platform that allows users to create various types of visual content such as infographics, posters, presentations, and animations. Canva provides various templates and graphic elements that can be used for free or paid. In learning, Canva can be used to deliver subject matter in a visual and interesting way. According to [12], Canva is very suitable for use in learning because of its user-friendly interface, large selection of ready-made designs, and easy integration with various devices. Canva can also be used by teachers to create interactive teaching media, such as visual quizzes, concept explanation videos, and digital worksheets. [12] in the journal *EduInovasi* mentioned that Canva facilitates teachers in creating creative, visual, and accessible learning media. Canva also increases student engagement as it is attractive and user-friendly. [13] stated that Canva is able to visualize the subject matter better, so that students can more easily understand the content of the material, especially abstract material such as geometry and mathematics. [14] found that the use of Canva as a presentation media and learning video helped students to be more focused and active in the learning process, and improved learning evaluation results.

## **Flat Building Materials in Grade III SD**

Flat shapes are part of geometry in mathematics that are taught since grade I and continue to develop until the next level. In grade III, students are introduced to various types of flat shapes such as square, rectangle, triangle, circle, parallelogram and trapezoid. This material includes the introduction of shapes, characteristics, and the calculation of the perimeter and area of flat shapes. Understanding the concept of flat shapes is very important because it is the basis for understanding geometry materials at the next level. Therefore, a learning approach that can present concepts concretely and visually is needed. [15] says that in learning mathematics in elementary school, especially geometry materials such as flat shapes, students need to be assisted with visual media in order to be able to imagine the shape and understand the concept. [16] in his theory of learning by doing, emphasizes the importance of the use of visual aids and concrete in the concrete operational learning stage, such as grade III elementary students. Geometry learning will be more effective if accompanied by visual aids or media.

## **Learning Outcomes and Indicators of Learning Success**

Learning outcomes are changes in behavior or abilities that students acquire after going through the learning process. According to Bloom, learning outcomes include cognitive (knowledge), affective (attitude), and psychomotor (skills) domains. In this study, learning outcomes are focused on the cognitive aspect, namely students' understanding of flat building material. The indicators of learning success can be seen from: Increased student evaluation scores. Increased student activity and involvement in learning. Positive student responses to the learning media used.

## **Framework of Thought**

In learning mathematics, especially the material of flat shapes, visual media is very helpful for students in understanding the shape and characteristics of each shape. The use of Canva as an interactive media allows teachers to present material in an interesting, visual and easy-to-understand manner. With this media, it is expected that there will be an increase in learning interest, student involvement, and learning outcomes.

The framework of this study can be described as follows:

Use of Canva media → Increased learning interest and understanding → Increased learning outcomes in mathematics (flat shapes).

## **Relevant Research**

Several previous studies have shown that the use of digital-based interactive media can improve student learning outcomes.

Research by Rahayu shows that the use of Canva in thematic learning in elementary schools can increase student participation and understanding.

Research by Wulandari states that interactive visual media can help elementary school students understand abstract math concepts more concretely.

Interactive media has great potential in supporting mathematics learning, especially flat building material in grade III SD.

## RESEARCH METHOD

### Research Design

This research is a Classroom Action Research (PTK) conducted collaboratively between researchers and third grade teachers of SDN Cijantung 01. PTK aims to improve and enhance the quality of mathematics learning, especially on the material of flat shapes, through the use of Canva interactive media.

This research used the Kemmis and McTaggart model which consists of two cycles, and each cycle includes four stages:

#### 1. Planning

The planning stage is the first step before the action is taken. At this stage, researchers and teachers arrange all the preparations needed so that the implementation of the action runs effectively.

Activities carried out include:

- a. Developing a Learning Implementation Plan (RPP) with a Canva interactive media-based approach.
- b. Preparing flat building learning materials.
- c. Designing learning media in Canva (for example: pictures of flat shapes, interactive presentations, animations).
- d. Developing research instruments such as observation sheets, evaluation questions, and student questionnaires.
- e. Prepare technical devices such as laptop, LCD projector, internet connection if needed.

#### 2. Implementation of Action (Acting)

At this stage, the teacher carries out the learning process in accordance with the plan that has been prepared.

Activities carried out include:

The teacher delivers flat building material with the help of Canva media. Students actively participate in learning activities, both discussions, answering questions, and visual media-based tasks. Teachers interact directly with students, facilitate activities, and provide feedback.

Note: the implementation of actions can be carried out for 2-3 meetings in one cycle, depending on the scope of material and schedule.

#### 3. Observing

Observation was carried out simultaneously when the action took place, aiming to observe and record all things that happened in the learning process.

Aspects observed include:

Student involvement in learning activities. Students' enthusiasm when Canva media is used. Students' response to the material and teacher's instruction. Teacher performance in managing the class and using the media. Obstacles that arise when learning takes place.

Observations can be made by researchers or collaborators (other teachers) using the prepared observation sheet.

#### **4. Reflecting**

Reflection is the process of analyzing all data from observation and evaluation. This stage aims to assess the effectiveness of the action and plan improvements in the next cycle.

Activities in reflection: Evaluating student learning outcomes based on test scores. Analyzing student responses from questionnaires and observation notes. Summarizing the strengths and weaknesses of the learning process. Develop an improvement plan for the next cycle (if the results are not maximized), such as: Simplifying the appearance of Canva. Giving more exercises. Increase visual or video examples.

#### **Subject and Research Location**

This research was conducted in class III of SDN Cijantung 01 in the even semester of the 2024/2025 school year.

Subject of research: all third grade students totaling 30 students.

Research object: the use of Canva interactive learning media in learning mathematics on flat building materials.

#### **Research Procedure**

The research was conducted in two cycles. Each cycle consists of:

##### **Cycle I**

Planning: developing Canva media-based lesson plans, preparing learning tools, flat building materials, and assessment instruments.

Implementation: The teacher conducted the lesson according to the lesson plan by utilizing Canva to explain the types of flat shapes and their characteristics.

Observation: conducted to determine students' participation and involvement and record the obstacles that arise.

Reflection: conducted to evaluate the learning process, observe shortcomings, and develop improvements for cycle II.

##### **Cycle II**

Improvements are made based on the results of the reflection of cycle I, for example by improving media design, material presentation approaches, or student comprehension techniques.

The process of implementation, observation, and reflection was carried out again as in cycle I.

#### **Data Collection Techniques**

1. Observation: used to see students' learning activities, engagement, and use of Canva during learning.
2. Test (Learning Evaluation): conducted at the end of each cycle to measure the improvement of student learning outcomes.
3. Student Response Questionnaire: to find out students' responses to the use of Canva media.
4. Documentation: in the form of photos, learning videos, and records of activities that took place during the action.

## **Research Instruments**

Student and teacher activity observation sheets

Evaluation questions (learning outcome tests): compiled based on flat building material indicators

Student response questionnaire

Visual documentation and field notes

## **Indicators of Success**

This research is considered successful if:  $\geq 80\%$  of students achieved the Minimum Completion Criteria (KKM) score set by the school, which is 70.

There is an increase in students' active participation in learning from cycle I to cycle II.

Students show a positive response (at least 75%) to learning using Canva.

## **Data Analysis Technique**

Data were analyzed descriptively quantitatively and qualitatively:

Quantitative data obtained from test scores and questionnaire results, analyzed using the percentage of achievement of KKM and the increase in scores between cycles.

Qualitative data obtained from observation and reflection, analyzed by describing student involvement, constraints, and improvements made between cycles.

Percentage Formula of Completion:

Completion =  $\frac{\text{Number of students completed}}{\text{Total number of students}} \times 100\%$

The increase in learning outcome scores (gain) between cycles was also analyzed to see the effectiveness of the actions taken.

## **RESULTS AND DISCUSSION**

### ***Result***

#### **General Description of the Research Location**

This research was conducted at SDN Cijantung 01, East Jakarta, in the even semester of the 2024/2025 school year. The class that became the subject of the study was class III with 30 students. The facilities available were adequate to implement digital media-based learning, such as projectors, speakers, and limited internet access. The class teacher was cooperative and actively involved in the whole class action process.

#### **Cycle I Results**

##### **Planning**

Researchers and teachers developed lesson plans by utilizing Canva media to deliver flat building materials. The media was prepared in the form of an interactive visual presentation that displays the characteristics of flat shapes, real examples, and visual problem exercises. Evaluation tests and observation sheets were also prepared.

##### **Implementation of Action**

Learning took place over 2 meetings. The teacher used Canva media to explain the material, and students were invited to actively answer questions and observe pictures.

### **Observation**

Based on observation, some students are still passive and not all are able to follow instructions well. Some students seemed enthusiastic, but still had difficulty in answering practice questions about flat shapes.

### **Reflection**

Reflection shows that:

Students are interested in the visual appearance of Canva.

Many students still have difficulty understanding the material due to less than optimal learning time and lack of practice.

Need to adjust the tempo of teaching, more practice, and simpler utilization of Canva.

### **Cycle I Evaluation Results**

Out of 30 students: 18 students (60%) scored above the KKM ( $\geq 70$ ). 12 students (40%) were not yet complete.

Because it has not met the success indicator ( $\geq 80\%$  complete), it is continued to cycle II.

### **Cycle II Results**

#### **Planning**

The teacher improved the Canva media with animations and additional exercises. The lesson plan was revised for more interaction and discussion.

#### **Action Implementation**

Learning took place more interactively. Students are divided into small groups to discuss the types of flat shapes and match them with the pictures displayed.

#### **Observation**

Observations showed that most students were active in discussing and asking questions. The class atmosphere is conducive and enthusiasm has increased. The use of Canva makes the material easier to understand.

#### **Reflection**

Reflection showed significant improvement in student understanding. Teachers felt that Canva media really helped the concept visualization process.

### **Cycle II Evaluation Results**

Out of 30 students:

26 students (86.7%) achieved a score of  $\geq 70$ . 4 students (13.3%) were not yet complete, but had an increase in scores from cycle I.

Conclusion: The target success indicator was achieved in cycle II.

### **Discussion**

The results showed that the use of Canva interactive media was effective in improving students' understanding of flat building materials. This is shown by:

An increase in the number of students who completed from 60% in cycle I to 86.7% in cycle II.

Increased active participation and student learning motivation.

Students' response to Canva media is very positive because it looks attractive, colorful, and easy to understand.



This research supports Bruner's theory which states that the use of visual media can help students at the concrete operational stage understand abstract mathematical concepts. In addition, this result is also in line with research by [12] which states that Canva as a learning media can increase student interest and understanding.

## CONCLUSION

**Fundamental Finding :** Based on the results of classroom action research that has been carried out in two cycles, it can be concluded that: 1. The use of Canva interactive media is proven to be effective in improving student learning outcomes on flat building material in class III SDN Cijantung 01. This is evidenced by the increase in student learning completeness from 60% in cycle I to 86.7% in cycle II. 2. Canva media helps students understand the concept of flat shapes visually and interactively, so that students more easily recognize the shape, characteristics, and differences between shapes. **Implication :** 3. The learning process becomes more interesting, fun, and increases students' active participation. Varied media and interesting visuals can reduce boredom and increase students' learning motivation. 4. Students' response to the use of Canva is very positive. Students feel more excited and enthusiastic in participating in math learning because the material is delivered in a way that is not monotonous and easy to understand. **Limitation :** However, the scope of this research is limited to one school and one class level, so broader generalization is not yet possible. **Future Research :** Further research is recommended to test Canva's effectiveness across different subjects, student characteristics, and educational levels to strengthen its applicability in diverse learning environments.

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