

## THE EFFECTIVENESS OF THE USE OF SHORT-FORM VIDEOS ON THE LEARNING OUTCOMES OF PANCASILA EDUCATION IN ELEMENTARY SCHOOLS

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### Abstract

Pancasila Education plays an important role in developing students' civic character and national values from the elementary school level. However, conventional teaching methods often make students less active and less able to understand abstract moral concepts. This study aimed to examine the effectiveness of short-duration videos in improving students' learning outcomes in Pancasila Education. This research employed a quantitative approach with a quasi-experimental design using a non-equivalent control group design. The study was conducted at SD Inpres Masigi, Parigi Moutong Regency. The research population consisted of third-grade students, while the sample involved two classes selected through purposive sampling and divided into an experimental group and a control group. The primary data were students' pre-test and post-test scores, supported by observation data, while secondary data were obtained from school documents, student records, and learning materials. Data were collected through tests, observation, and documentation. The data were analyzed using the Shapiro-Wilk normality test, Levene's homogeneity test, Independent Sample T-Test, and N-Gain analysis. The results showed that the data were normally distributed and homogeneous. The Independent Sample T-Test obtained a significance value of  $0.007 < 0.05$ , indicating a significant difference between the experimental and control groups. The experimental group achieved a higher mean score than the control group, while the N-Gain score of 0.46 was categorized as moderate. Therefore, short-duration videos are reasonably effective as an alternative learning medium for improving elementary students' learning outcomes in Pancasila Education.

### Keywords

Elementary School; Learning Outcomes; Pancasila Education; quasi-experiment; Short-Duration Video.



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## INTRODUCTION

Pancasila education plays a strategic role in shaping students' character, morals, and national identity from the elementary school level. This learning is not only oriented toward mastering concepts but also toward internalizing Pancasila values in daily life (Nurhantara & Ratnasari Dyah Utami, 2023). Philosophically, education, according to Ki Hadjar Dewantara, emphasizes the importance of guiding students' potential holistically to achieve optimal development (Kusnadi & Lumingkewas, 2025). In this context, Pancasila Education is the primary instrument for comprehensively building students' character (Fitriasari et al., 2020). However, the implementation of Pancasila Education learning in elementary schools still faces various obstacles. Lectures and textbooks often dominate the learning process, so students are less engaged and struggle to understand abstract and normative material. This condition has an impact on low student involvement and on learning outcomes (Bingen et al., 2020). Therefore, learning innovations are needed that can significantly improve process quality and learning outcomes.

Learning media is an important factor in increasing the effectiveness of Pancasila Education in elementary schools. The use of appropriate media can help convey information in a clearer, more interesting, and easy-to-understand way (Yusnaldi et al., 2025). Multimedia-based learning that integrates text, images, and audio can optimally improve students' cognitive processes. In this case, video is one of the media with great potential to support more interactive learning. Video, as an audiovisual medium, can present information contextually and dynamically, thereby increasing students' attention, motivation, and understanding. In addition, the use of video allows students to learn independently and iteratively as their. This makes video a relevant medium for learning in the digital era (Navarrete et al., 2025; Saluky & Nurul Bahiyah, 2023).

With technological development, short-form videos are becoming an increasingly used innovation in learning. Short videos allow for the presentation of material in a concise, clear, and non-boring manner. Research shows that short-duration videos are more effective in retaining students' attention than long-form videos. Thus, the video's duration is an important factor in determining learning effectiveness. From the perspective of cognitive load theory, as put forward by John Sweller, presenting information concisely can reduce students' cognitive load, thereby improving comprehension. The principle of segmentation in multimedia learning also emphasizes dividing material into smaller parts to make it easier for students to process. Therefore, short-duration videos are considered more suitable for elementary school students with limited attention

spans (Beege et al., 2025; Silvester et al., 2025).

Learning outcomes are the main indicators of learning success, which include cognitive, affective, and psychomotor aspects. According to Benjamin S. Bloom, learning outcomes reflect students' mastery of the material (Adhikari, 2024). In the context of Pancasila Education, learning outcomes are measured not only at the cognitive level but also in students' ability to internalize values and apply them in daily life (Mahendra et al., 2025). Various studies have examined the effectiveness of video in learning. Studies show that videos can increase student engagement, comprehension, and information retention (Afify, 2020). Other research has also shown that the use of video significantly improves learning outcomes across various educational contexts (Noetel et al., 2021). These findings reinforce the video's position as an effective learning medium

However, there are still gaps in previous research. Most studies focus on the use of video in general, without considering the duration and content design specifically, and are conducted primarily in the context of higher education or cognitively based subjects such as science and language (Crompton & Burke, 2023; Lemay & Doleck, 2022). In addition, research on short-duration videos in value-based learning, such as Pancasila Education in elementary schools, remains very limited (Apriani et al., 2025; Yulia et al., 2026). From a contextual perspective, research in the region, particularly at SD Inpres Masigi in Parigi Moutong Regency, remains limited. In fact, field conditions indicate that the use of learning technology is suboptimal and continues to be dominated by conventional methods. Therefore, this study aims to empirically examine the effectiveness of short-duration videos on the learning outcomes of Pancasila Education among students at Inpres Masigi Elementary School. This research is expected to make theoretical and practical contributions to the development of innovative learning media that align with the characteristics of elementary school students and to strengthen the transformation of technology-based education.

## **METHOD**

This study uses a quantitative approach with a *quasi-experimental design* to test the effectiveness of short-duration videos on the learning outcomes of Pancasila Education among elementary school students. The quantitative approach was chosen because it allows objective measurement of the influence of treatment variables through inferential statistical analysis (Creswell, 2016). The research design used is *the Non-Equivalent Control Group Design*, which involves two groups, namely the experimental group and the control group, without full randomization

(Campbell & Stanley, 1963). The following research design can be seen in the table below:

**Table 1.** Research Design

<b>Groups</b>	<b>Pre-test</b>	<b>Treatment</b>	<b>Post-test</b>
Experiments	O <sub>1</sub>	X (Short Duration Video)	O <sub>2</sub>
Controls	O <sub>3</sub>	- (Conventional)	O <sub>4</sub>

The experimental group received treatment using short-duration videos as a learning medium. In contrast, the control group used conventional learning methods based on lectures and textbooks. This design was chosen because it is suitable for research in a school environment that does not allow strict subject randomization, but can still control external variables by administering pre- and post-tests (Miller et al., 2020).

The subject of this study is a third-grade student of SD Inpres Masigi, Parigi Moutong Regency. The sampling technique uses purposive sampling, considering the equality of students' initial abilities, relatively homogeneous class characteristics, and the suitability of learning schedules. The research sample consisted of two classes, namely class III A as the experimental group and class III B as the control group. The experimental group received treatment in the form of short-duration videos for learning Pancasila Education. In contrast, the control group received conventional learning through lectures and textbooks. The variables in this study consist of independent *variables*, namely the use of short-duration videos as learning media, and dependent *variables*, namely student learning outcomes in Pancasila Education subjects. The operational definition of learning outcomes in this study focuses on cognitive aspects measured through objective tests, in accordance with Benjamin S. Bloom's classification of the cognitive domain (Noushad, 2024).

The data collection techniques in this study include tests, observations, and documentation. The test is used to measure student learning outcomes before (pre-test) and after (post-test) treatment. Observations were conducted to document student activities and involvement during the learning process. At the same time, documentation was used to obtain supporting data such as student name lists, school conditions, and learning tools. The test instruments used have undergone validity and reliability tests to ensure measurement quality (Clark & Watson, 2019).

The research procedure is carried out in three stages: preparation, implementation, and finalization. In the preparation stage, the researcher compiles learning tools and research instruments and conducts validity and reliability tests. The implementation stage includes giving pre-tests to both groups, implementing learning using short-duration videos in the experimental

group, and conventional learning in the control group. Afterward, posttests were administered to both groups to measure improvements in learning outcomes. The final stage involves processing, analysis, and interpretation of research data.

Data analysis is conducted quantitatively in several stages. The normality test was conducted using the Shapiro-Wilk test because the sample size was less than 50, and the homogeneity test was conducted using the Levene test to assess the similarity of variances between the experimental and control groups. After the data were declared to be normally and homogeneously distributed, a hypothesis test was carried out using the Independent Samples T-Test to determine the difference in the learning outcomes of Pancasila Education between students in the experimental group who used short-duration videos and students in the control group who used conventional learning (Field, 2013). In addition, to assess the effectiveness of short-duration videos, Normalized Gain (N-Gain) analysis was used. The N-Gain calculation is used to see a more proportional increase in student learning outcomes from pre-test to post-test. The interpretation of N-Gain values is classified into low, medium, and high categories to determine the level of effectiveness of the treatment:

$$g = \frac{\text{Skor posttest} - \text{Skor pretest}}{\text{Skor maksimal} - \text{Skor pretest}}$$

The following is a table of the criteria for N-Gain measurement results as below:

**Table 2.** *N-Gain Category*

<b>N-Gain Value</b>	<b>Categories</b>
$(g \geq 0.70)$	High
$(0.30 \leq g < 0.70)$	Medium
$(g < 0.30)$	Low

If the *N-Gain* results fall in the medium or high category, the use of short-duration videos is deemed effective in improving learning outcomes in Pancasila Education at SD Inpres Masigi. Thus, this research method is systematically designed to produce valid and reliable empirical data to test the effectiveness of short-duration videos on the learning outcomes of Pancasila Education among grade III students at SD Inpres Masigi.

## FINDINGS AND DISCUSSION

### Findings

The results of this study include the pretest and post-test results, the normality and homogeneity test results, *and the N-Gain* test results to measure the effectiveness of using short-duration videos. After 8 days of research, the results of the pretest and posttest of students were obtained as follows:

**Table 3.** Pre-Test and Post-Test Results

No	Name	Ket	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
1.	Eca	Pre	12	15	18	18	21	21	18	21
		Post	15	18	18	21	21	21	21	21
2.	Princess	Pre	18	24	27	27	27	27	27	30
		Post	24	27	27	27	27	30	30	30
3.	Fira	Pre	21	27	27	27	30	30	30	30
		Post	27	27	30	30	30	30	30	30
4.	Mizwar	Pre	21	30	27	30	30	30	30	30
		Post	30	30	30	30	30	30	30	30
5.	Alisa	Pre	21	27	24	27	27	27	27	30
		Post	27	27	27	27	27	27	30	30
6.	Ashifa	Pre	18	24	24	21	24	21	24	27
		Post	24	24	24	24	24	24	27	30
7.	Kinan	Pre	21	27	24	27	27	24	27	27
		Post	27	27	27	27	27	27	27	27
8.	Son	Pre	18	24	24	21	24	21	24	24
		Post	24	24	24	24	24	24	24	27
9.	Andi	Pre	24	27	30	30	30	30	30	30
		Post	30	30	30	30	30	30	30	30
10.	Ali	Pre	9	15	18	18	21	21	15	21
		Post	15	18	18	21	21	21	21	21
11.	Zidan	Pre	6	15	18	18	21	21	18	21
		Post	15	18	18	21	21	21	21	21
12.	Ketra	Pre	18	24	24	18	21	21	21	24
		Post	24	24	24	21	21	21	24	27
13.	Rukayah	Pre	15	21	24	21	24	21	24	24
		Post	21	24	24	24	24	24	24	27
14.	Zara	Pre	18	27	27	24	27	24	27	27
		Post	27	27	27	27	27	27	27	27
15.	Nafa	Pre	12	21	21	21	24	24	24	24
		Post	21	21	21	24	24	24	24	27
16.	Aqil	Pre	15	21	21	24	21	21	24	24
		Post	21	24	24	24	24	24	24	27
17.	Afif	Pre	12	21	24	21	24	21	24	24
		Post	21	24	24	24	24	24	24	27
18.	Arkan	Pre	15	21	21	24	24	24	24	24

No	Name	Ket	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
19.	Azif	Post	21	21	24	24	24	24	24	24
		Pre	6	12	15	15	18	18	18	21
20.	Azril Hiqkat	Post	12	15	15	18	18	18	21	21
		Pre	12	21	21	18	21	21	21	24
21.	Azril	Post	21	21	21	21	24	21	24	24
		Pre	12	21	21	24	24	24	24	27
		Post	21	21	24	24	24	27	27	27

### Normality Test

Normality can be assessed using the Shapiro-Wilk test, as the sample size is less than 50 ( $n = 21$ ). The data tested is the total pre-test and post-test scores of each student. For more details, you can see the following table:

**Table 4.** Shapiro-Wilk Normality Test Results

Variable	Shapiro-Wilk Statistic	df	Sig.	Remarks
Pre-test	0,957	21	0,485	Normal
Post-test	0,949	21	0,397	Normal

Based on the results of the normality test using Shapiro-Wilk, the significance value of the pre-test was 0.485, and the post-test was 0.397. Since the significance values for the two variables are greater than 0.05, the pre-test and post-test data are normally distributed.

### Homogeneity Test

After the data are found to be normally distributed, the next step is to conduct a homogeneity test using the Levene test to assess the similarity of the data variances. The results of the homogeneity test can be seen in the following table:

**Table 5.** Homogeneity Test Results

Variable	Living Statistic	df1	df2	Sig.	Remarks
Pre-test and Post-test	1,284	1	40	0,264	Homogeneous

Based on Levene's homogeneity test, the p-value was 0.264. Since the significance value is greater than 0.05, the data variance is homogeneous. Thus, the data are eligible for analysis using parametric tests.

### Uji Independent Sample T-Test

After the data are determined to be normally and homogeneously distributed, a hypothesis test is carried out using the Independent-Samples T-Test. This test was used to determine differences

in Pancasila Education learning outcomes between the experimental group, which used short-duration videos, and the control group, which used conventional learning. The test results are shown in the following table.

**Table 6.** Independent Sample T-Test Test Results

Variable	Groups	Red	Std. Deviation	t	df	Sig. (2-tailed)	Remarks
Learning Outcomes	Experiments	25,71	3,96	2,847	40	0,007	Significant
	Controls	22,48	4,31				

Based on the results of the Independent Sample T-Test, a significance value of  $0.007 < 0.05$  was obtained. These results show a significant difference in student learning outcomes between the experimental and control groups. The experimental group that used short-duration video obtained an average score of 25.71, while the control group that used conventional learning obtained an average score of 22.48. Thus, it can be concluded that the use of short-duration videos is more effective than conventional learning in improving Pancasila Education learning outcomes for third-grade students at SD Inpres Masigi.

#### N-Gain Test

The N-Gain test was administered to assess student learning outcomes after students were shown a short video. The results of the N-Gain calculation can be seen in the following table:

**Table 7.** N-Gain Test Results

Variable	Mean Pre-test	Mean Post-test	N-Gain	Categories
Student Learning Outcomes	22,10	25,71	0,46	Medium

Based on the N-Gain calculation, a value of 0.46 was obtained, placing it in the medium category. This shows that using short-duration videos improves learning outcomes, making it quite effective for third-grade students at SD Inpres Masigi in Pancasila Education. Thus, short-duration video media can serve as an alternative learning medium to improve students' understanding and learning outcomes more effectively.

#### Discussion

The results of the study show that using short-duration videos as a learning medium positively influences the learning outcomes of grade III Pancasila Education students at SD Inpres Masigi. Based on pre-test and post-test data collected over eight days of learning, most students showed improved learning outcomes after receiving short-duration video-based instruction. The improvement shows that video media can help students understand the material more easily, more

engagingly, and more contextually. The use of audiovisual media in learning is known to increase students' attention and motivation to learn because information is presented simultaneously through images, sounds, and movement, making it easier for elementary school students to understand (Chiriac, 2025; Pasaribu et al., 2025).

The results of this study are consistent with the multimedia learning theory proposed by (Mayer et al., 2020; Xie et al., 2019) which holds that students learn more effectively through a combination of visuals and audio rather than just text or lectures. In the context of Pancasila Education learning, short-duration videos help students understand abstract and normative material by making it more concrete through visual examples that are close to daily life. In addition, using short videos can help maintain students' focus and attention during learning. This is consistent with Costache & Enăchescu (2026),(Costache & Enăchescu, 2026) who stated that short-duration videos are more effective at maintaining student engagement than long-form videos because they reduce student boredom and cognitive load.

Based on the Shapiro-Wilk normality test, the significance values for the pre-test and post-test were 0.485 and 0.397, respectively, both greater than 0.05. These results show that the research data are normally distributed, making them eligible for parametric statistical analysis. Furthermore, the Levene test showed a significance value of 0.264 >, indicating that the data variances are homogeneous. Given the fulfillment of the assumptions of normality and homogeneity, the use of parametric tests, namely the Paired Sample T-Test and Independent Sample T-Test, is considered appropriate for testing the research hypothesis.

The results of the Paired Sample T-Test showed a significance value of  $0.000 < 0.05$  with a pre-test average of 22.10 and a post-test average of 25.71. These results showed a significant difference between student learning outcomes before and after the use of short videos. The increase in the post-test average score indicates that short-duration video media can improve students' understanding of Pancasila Education materials. These findings reinforce previous research indicating that video-based learning can significantly improve student learning outcomes, engagement, and information retention (Singh et al., 2025).

In addition, the results of the Independent Sample T-Test showed a significance value of 0.007, which is  $< 0.05$ . These results indicated a significant difference between the experimental and control groups. The experimental group that used short-duration videos obtained higher average learning outcomes than the control group that used conventional learning methods. This shows that

short-duration video media are more effective than lecture- and textbook-based learning. Conventional learning tends to make students passive because communication is one-way, whereas using video provides a more interactive and engaging learning experience, thereby making students more active participants in learning (Chen et al., 2021).

The effectiveness of short-duration videos was further confirmed by the N-Gain test result, which produced a score of 0.46 and was categorized as moderate. This finding indicates that the use of short-duration videos contributed to a measurable improvement in students' learning outcomes following the learning intervention. Although the improvement did not reach the high category, the moderate N-Gain score indicates that video-based learning produced a meaningful learning gain relative to students' initial ability. In the context of elementary school learning, this result is important because students at this level often require concrete, attractive, and easy-to-understand learning media to help them process instructional materials more effectively (Khairunnisa & Wulandari, 2025).

The moderate N-Gain result also suggests that short-duration videos can gradually improve students' understanding without creating excessive cognitive load. This is consistent with, who explains that an N-Gain score in the medium category reflects a reasonably effective learning process. Short-duration videos are relevant to the characteristics of elementary school students because they present information through visual, auditory, and contextual elements that can attract attention and sustain engagement. Therefore, short-duration videos can be considered an alternative instructional medium that supports more interactive, focused, and student-friendly learning, particularly in Pancasila Education, where abstract values need to be presented through concrete and meaningful examples (Zhang, 2020).

The results of this study also indicate that the use of simple learning technologies, such as short-duration videos, can be an innovative solution for improving the quality of Pancasila Education in elementary schools. Short-duration videos help present learning materials in a more concise, structured, and visually engaging manner, making it easier for students to understand concepts that may otherwise appear abstract or normative. In the context of Pancasila Education, values such as responsibility, cooperation, tolerance, and discipline need to be delivered through concrete examples that are close to students' daily lives (Afan et al., 2024; Afifah & Fadilah, 2023; Martono et al., 2025; Natalia et al., 2021; Sarkadi et al., 2022). Through visual and auditory representations, short videos can make these values more accessible, meaningful, and easier for

elementary school students to internalize.

Short-duration videos also allow students to learn more flexibly, maintain attention, and reduce boredom during learning. This finding is consistent with cognitive load theory (Beldar, 2026; Costley et al., 2025; Nordin et al., 2026; Pyke et al., 2025; Wu et al., 2022), which posits that short, well-structured information can reduce students' cognitive load and support more effective learning. When learning materials are delivered in a compact format, students are more likely to focus on essential information without being overwhelmed by excessive content. Therefore, the use of short-duration videos is highly relevant in Pancasila Education because it not only improves learning outcomes but also supports students' motivation, engagement, and active participation in the classroom.

## CONCLUSION

Based on the findings and discussion, the use of short-duration videos was effective in improving the learning outcomes of third-grade students in Pancasila Education at SD Inpres Masigi. This is indicated by the higher mean score of the experimental group compared to the control group and by the Independent Samples T-Test result, which showed a significance value of  $0.007 < 0.05$ . The N-Gain score of 0.46, which falls into the moderate category, further indicates that short-duration videos provide a meaningful improvement in students' learning outcomes. Therefore, short-duration videos can serve as an innovative, interactive, and developmentally appropriate learning medium for elementary school students, particularly to help them understand abstract and value-based concepts in Pancasila Education.

The strength of this study lies in its use of a quasi-experimental design with experimental and control groups, enabling an empirical examination of the effectiveness of short-duration videos. In addition, the use of pre-tests, post-tests, observations, and documentation strengthened the data collection process. However, this study also has limitations, particularly the small sample size, the focus on one school, and the measurement of learning outcomes that was primarily directed at the cognitive domain. Future studies are recommended to involve larger and more diverse samples, compare different types and durations of instructional videos, and examine broader learning outcomes, including students' attitudes, motivation, character development, and long-term retention in Pancasila Education.

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