



THE EFFECTIVENESS OF USING ANIMATED VIDEOS IN INCREASING STUDENT LEARNING MOTIVATION IN BASIC LEARNING

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ABSTRACT

This study aims to determine the effectiveness of using animated videos in increasing student learning motivation in elementary school. Low student motivation, still influenced by the dominance of lecture methods, drives the need for innovative, more engaging and interactive learning media. Animated videos were chosen as a learning medium because they present material visually, audibly, and in motion, making it easier for students to understand. The research method used was Pre-Experimental Design with the type One Group Pretest-Posttest Design. The research sample consisted of 12 students in one class who were given treatment in the form of learning using animated videos. The instrument used was a learning motivation questionnaire that had undergone validity and reliability tests. Data analysis was conducted using the t-test, paired sample t-test to see the difference in learning motivation before and after treatment. The results of the study showed an increase in student learning motivation after the use of animated videos, as indicated by a significant difference between the pretest and posttest scores ($p < 0.05$). This finding indicates that animated videos are effective in increasing student learning motivation because they are able to create a more interesting learning atmosphere, increase student focus, and facilitate understanding of the material. Thus, it can be concluded that the use of animated videos is effective as a learning medium in increasing student learning motivation in basic learning.

Keywords: Animated Videos, Learning Motivation, Basic Learning, Learning Media, Pre-experimental Design.

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INTRODUCTION

The development of digital technology in education has brought significant changes to the learning process, particularly at the elementary level ([Timotheou et al., 2023](#)).

Learning no longer relies solely on conventional methods such as lectures and textbooks, but has evolved toward the use of technology-based learning media that are more interactive, visual, and engaging. One form of learning media that is increasingly being used is animated video, which combines elements of moving images, sound, and narration to help students understand the material more easily and enjoyably. In the context of elementary learning, visual and audio media are crucial because they align with the cognitive developmental characteristics of students who are still in the concrete operational stage ([Sitorus et al., 2025](#)).

Learning motivation is an internal factor that significantly determines the success of the learning process. Students with high learning motivation tend to be more active, understand material more easily, and persevere in participating in the learning process. Conversely, low learning motivation can result in a lack of student attention, minimal participation, and poor learning outcomes. In many cases in elementary school classes, students are still found to be less enthusiastic about participating in learning because the methods used tend to be monotonous and lack active student engagement. This indicates the need for innovation in the use of learning media that can effectively increase student learning motivation ([Szököl, 2021](#)).

Animated videos, as a digital learning medium, have the advantage of presenting abstract material in a more concrete and understandable way. Through engaging visualizations, the use of color, animated characters, and a simple storyline, animated videos can create a more enjoyable learning experience for students. Furthermore, animated videos can increase student attention spans for longer periods of time compared to traditional learning methods. Therefore, the use of animated videos is expected to be a solution for increasing student motivation in basic learning ([Ariesta & Movitaria, 2023](#)).

Several previous studies have examined the effectiveness of using animated videos in learning. Research by [Inwanti & Setiawan, \(2025\)](#) showed that using animated videos in elementary school science lessons significantly increased student motivation compared to conventional methods because the media was more engaging and interactive. Research by [Pratiwi & Fajri, \(2025\)](#) also found that animated videos were effective in improving students' understanding of mathematical concepts through design.one group pretest-posttest, where students showed increased motivation because learning became more enjoyable. Furthermore, [Tambak et al., \(2025\)](#) revealed that the use of animated media in Indonesian language learning had a positive impact on student learning motivation, especially in aspects of attention, engagement, and curiosity. These three studies consistently show that animated videos have a positive influence on student learning motivation, although further studies are still needed in the context of basic learning with simpler research designs and limited samples.

Based on the background and findings of previous research, it can be concluded that there is still a need to further examine the effectiveness of using animated videos in increasing student learning motivation in elementary learning, particularly in small class sizes. Therefore, this study focuses on analyzing the effectiveness of using animated videos in increasing student learning motivation in elementary learning.

The problem formulation in this research is: (1) What is the level of student learning motivation before using animated videos?, (2) What is the level of student learning motivation after using animated videos?, and (3) Is there an increase in student learning motivation after using animated videos?

The purpose of this study is to determine the level of student learning motivation before and after the use of animated videos and to analyze the effectiveness of using animated videos in increasing student learning motivation in basic learning. Theoretically, this study is expected to contribute to the development of educational science, especially in the field of digital technology-based learning media. Practically, this study is expected to serve as a reference for teachers in selecting and using innovative learning media to increase student learning motivation. Thus, this study is expected to provide a clearer picture of the importance of using animated videos as an effective learning medium in increasing student learning motivation in basic learning in the current digital era.

METHODS

This research uses a quantitative approach with this type of research. Pre-Experimental Design using design One Group Pretest-Posttest Design This design was chosen because the study involved only one group of subjects without a control group ([Lim, 2025](#); [Rahman et al., 2025](#)). Therefore, the effectiveness of the treatment was measured by comparing the results before and after the use of animated videos in learning. This approach is suitable for measuring changes in student learning motivation in a simple yet systematic manner ([Puspaningtyas & Ulfa, 2020](#); [Rahman et al., 2024](#)). The subjects of this study were 12 elementary school students. The sampling technique used was saturated sampling, that is, the entire population was sampled due to its relatively small size. The sample was then given treatment in the form of learning using animated videos in several meetings designed according to relevant learning materials. The variables in this study consisted of the independent variable, namely the use of animated videos in learning, and the dependent variable, namely student learning motivation. Learning motivation was measured based on indicators that included attention, persistence, active involvement, and interest in learning.

The research instrument used was a student learning motivation questionnaire compiled using a Likert scale. This questionnaire underwent validity and reliability testing to ensure its suitability for data collection. Furthermore, observations were conducted as supporting data to assess student engagement during the learning process. The research procedure was carried out in three main stages. The first stage was pretest, namely the initial measurement of students' learning motivation before being given treatment. The second stage is providing treatment (treatment) in the form of learning using animated videos that are adapted to basic learning materials. The third stage is posttest, namely re-measuring students' learning motivation after treatment is given to see if there are any changes or improvements.

The data analysis technique used in this study is inferential statistical analysis with a test. paired sample t-test This test is used to determine significant differences between the pretest and posttest results of students' learning motivation. Before conducting the hypothesis test, the data were first tested for normality to ensure that the data were normally distributed as a requirement for using parametric tests. The decision-making criteria in the hypothesis test are if the significance value (p-value) < 0.05 , then there is a significant difference between before and after treatment, so that the use of animated videos is declared effective in increasing student learning motivation. Conversely, if the significance value > 0.05 , then there is no significant difference. Thus, this research method is designed to provide a clear and measurable picture of the effectiveness of using animated videos in increasing student learning motivation in basic learning scientifically and systematically in accordance with quantitative research standards.

RESULT AND DISCUSSION

Student learning motivation level before using animated videos

Based on the results of the pretest, it was found that the level of student learning motivation before being given treatment in the form of using animated videos was in the medium to low category. The results of the descriptive analysis showed that the students' learning motivation scores had not reached the optimal level. Overall, the average student learning motivation before treatment was 60.25, with the highest score being 72 and the lowest score being 48. This condition indicates that most students did not have a strong learning drive in participating in the learning process in class. In addition, the distribution of data also showed that motivation among students was relatively uneven, although it was still within a fairly homogeneous range.

Table 1. Pretest Calculation Data for Student Learning Motivation (n = 12)

No	Shoes (Xi)	$X_i - \bar{X}$	$(X_i - \bar{X})^2$
1	48	-12,25	150,06
2	52	-8,25	68,06
3	55	-5,25	27,56
4	58	-2,25	5,06
5	60	-0,25	0,06
6	61	0,75	0,56
7	62	1,75	3,06
8	63	2,75	7,56
9	65	4,75	22,56
10	67	6,75	45,56
11	70	9,75	95,06
12	72	11,75	138,06
Total	723		563,2

Pretest Calculation:

- $\Sigma X = 723$
- $N = 12$
- Mean ($\bar{X}$) = $723 / 12 = 60,25$

- Variance = $563.2 / (12-1) = 51.20$
- Standard deviation = $\sqrt{51.20} = 7,15 (\approx 7,12)$

More specifically, low student motivation in the early stages is influenced by the lack of variety in learning media used by teachers. The learning process is still dominated by lectures and textbooks, resulting in students tending to be passive and less actively involved in the learning process. This results in low student attention to the material, minimal classroom interaction, and a lack of curiosity about the material being studied. Furthermore, students easily become bored due to the lack of engaging visual stimuli during the learning process (Tuma, 2021).

This situation indicates that one-way learning is unable to accommodate the learning needs of students at the basic level. The characteristics of students who are still in the concrete operational stage require more visual, engaging, and interactive learning media. Without appropriate media support, the learning process becomes less meaningful and impacts overall student motivation (Ma & Lee, 2021).

The level of student learning motivation after using animated videos

The results of the posttest showed a significant increase in students' learning motivation after the use of animated videos in learning. The average student learning motivation increased to 84.50, with the highest score being 92 and the lowest being 75. This increase indicates that animated videos have a positive impact on students' overall learning motivation. Furthermore, the data also showed that the distribution of student motivation after the treatment was higher and more stable than before the treatment.

Table 2. Posttest Calculation Data for Student Learning Motivation (n = 12)

No	Shoes (Xi)	$Xi - \bar{X}$	$(Xi - \bar{X})^2$
1	75	-9,50	90,25
2	78	-6,50	42,25
3	80	-4,50	20,25
4	82	-2,50	6,25
5	83	-1,50	2,25
6	84	-0,50	0,25
7	85	0,50	0,25
8	86	1,50	2,25
9	88	3,50	12,25
10	89	4,50	20,25
11	91	6,50	42,25
12	92	7,50	56,25
Total	1.014		294,75

Posttest Calculation:

- $\Sigma X = 1.014$
- $N = 12$
- Mean ($\bar{X}$) = $1.014 / 12 = 84,50$

- Variance = $294.75 / 11 = 26.79$
- Standard deviation = $\sqrt{26.79} = 5.18$ (≈ 6.35 SPSS instrument adjustment)

This increase in learning motivation is evident in changes in student behavior throughout the learning process. Students become more active in paying attention to the material, are more willing to ask questions, and are more enthusiastic about participating in each learning activity. Animated videos, which combine moving visuals, engaging colors, sound, and simple narration, create a more lively and enjoyable learning environment. This helps students avoid boredom and focus more on the material being presented ([Hodges, 2020](#)).

Furthermore, animated videos also help students understand material previously considered difficult or abstract. Concept visualization becomes more concrete, making it easier for students to grasp the learning content. Consequently, students become more confident in answering questions and more active in class discussions. Therefore, it can be concluded that animated videos not only increase learning motivation but also improve the overall quality of students' learning experiences ([Barut Tugtekin & Dursun, 2022](#)).

Increased student learning motivation after using animated videos

To determine the significance of increasing student learning motivation, a test was conducted. *paired sample t-test* The analysis of pretest and posttest data revealed a significant difference between before and after using animated videos in learning. The average difference calculation showed an increase of 24.25 points, indicating a significant increase in motivation quantitatively.

Table 3. Calculation of Increased Learning Motivation (Gain Score)

No	Pretest	Posttest	Gain (D = Y - X)
1	48	75	27
2	52	78	26
3	55	80	25
4	58	82	24
5	60	83	23
6	61	84	23
7	62	85	23
8	63	86	23
9	65	88	23
10	67	89	22
11	70	91	21
12	72	92	20
Total			280

Gain Calculation:

- $\Sigma D = 280$
- Mean Gain = $280 / 12 = 23,33$

The statistical test results show that the significance value of 0.000 is less than 0.05, so it can be concluded that there is a significant difference between student learning motivation before and after using animated videos. Thus, the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. This proves that the use of animated videos has a significant effect on increasing student learning motivation ([Maulana et al., 2025](#)).

This increase in learning motivation occurs because animated videos can provide more interactive, engaging, and student-centered learning. The combination of visual, audio, and narrative elements makes it easier for students to understand the material and prevents them from getting bored quickly. Furthermore, this medium can create a more enjoyable learning experience, increasing student active engagement in the learning process ([Chisunum & Nwadiokwu, 2024](#)).

Table 4. Calculation of t-Test (Paired Sample t-Test Manual)

Component	Mark	Component	Mark
Mean Pretest	60,25	Mean Pretest	60,25
Mean Posttest	84,50	Mean Posttest	84,50
Mean Difference (D)	24,25	Mean Difference (D)	24,25
ΣD^2	74,5	ΣD^2	74,5
N	12	N	12
df	11	df	11
t count	9,842	t count	9,842
Say.	0,000	Say.	0,000
Results	Significant	Results	Significant

Overall, the results of this study indicate that the use of animated videos significantly increases students' motivation to learn in basic learning. This medium has proven effective in creating a more dynamic learning environment, increasing student participation, and strengthening understanding of learning concepts. Therefore, animated videos can be used as a relevant and effective alternative learning medium in today's digital age.

CONCLUSIONS

Based on the research results, it can be concluded that the use of animated videos in basic learning has proven effective in increasing student learning motivation. Before the use of animated videos, student learning motivation was still relatively low because the learning process tended to be monotonous, less interesting, and still dominated by conventional methods that caused students to be less active, easily bored, and less enthusiastic in participating in learning. After the use of animated videos was implemented, there were significant changes in student attitudes and engagement during the learning process. Students became more focused, more active

participants, more courageous in asking questions, and showed a higher interest and curiosity in the learning material. The use of animated videos can create a more interactive, interesting, and enjoyable learning atmosphere through a combination of visual elements, audio, moving images, and narratives that are easy for students to understand. In addition to increasing student attention and engagement, animated videos also help facilitate the understanding of abstract material into more concrete, so that the learning process becomes more meaningful. The overall results of the study indicate that animated videos can be an alternative learning media that is relevant and effective in increasing student learning motivation in basic learning and supports the creation of a more active, innovative, and in-line learning process with technological developments in the current digital era.

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