

# Creating Animation as Audiovisual Media Learning to Improve Motivation and Social Subject Outcome of 5th grade of Elementary School at SD Negeri 067245 Medan Selayang

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## ABSTRACT

*This research aims to determine the feasibility, practicality and effectiveness of audiovisual media in the form of animation for class IV students at SD Negeri 067245 Medan Selayang. The research model used is research and development (R&D) using Thiagarajan's 4D design. The research subjects were 54 material and media expert validators, teachers and class IV students, each consisting of 27 students in the experimental class and 27 students in the control class. Based on research findings, validation results by material experts were 87%, media experts 88% and were included in the valid (feasible) category. Furthermore, the practicality results obtained from the teacher questionnaire results were 87.5% in the "Very Practical" category and student responses obtained a percentage of 90% in the "Very Practical" category. It can be concluded that the media developed is practical to use. The pretest score in the experimental class showed an average result of 63 and the posttest score showed an average result of 91, N-Gain 0.8. With the "High" criterion, obtained a value of 0.000 in the t test where Sig < 0.05 so it was stated that there was a significant difference Between the learning results in the experimental class and the control class, that audiovisual learning media in the form of animation is very feasible, practical and effective for use in learning and effective in increasing student motivation and learning outcomes.*

## KEYWORD

*development; learning media; animation; motivation*

## INTRODUCTION

Social studies education aims to develop a person's ability to use reasoning in making decisions for every reasoning encountered in everyday life. When researchers conducted observations and interviews, researchers discovered the fact that the learning outcomes obtained were less than satisfactory or that many students did not reach the Minimum Completeness Criteria or KKM. The Minimum Completeness Criteria for social studies subjects is 75. This can be seen in the final semester exam for the 2020/2021 Academic Year. Semester exam results for Class IV-A Social Sciences subjects of 27 students only 8 students completed, 19 students did not complete. Meanwhile, in class IV-B, out of 27 students, only 12 students completed it, 15 other students did not complete it.

Overall, we see that 20 students completed at a rate of 37%, while 34 learners didn't finish at rate of 63%. This is caused by the most fundamental problem. The student's activity is limited to listening to the teacher's explanation without taking an active role in the learning

process, which means that the student feels bored with the teaching process and is bored.

This is thought to be because learning only uses textbooks in the learning process in class IV, thus causing students to be passive and not involved in the process of finding information, giving the impression of being teacher centered because in the process of learning activities, students become objects of receiving information from the teacher, the learning methods used not yet varied, the class conditions are not conducive, some students are super active, but the activity is difficult to control and interferes with learning such as chatting, walking here and there, and permission to go to the toilet, many students when asked questions by the teacher just stay silent, students only receive the material that delivered by the teacher, then taking notes and it is not uncommon for students not to take notes or understand, as well as a lack of optimal use of learning media, the media used is limited to text books accompanied by writing material on a whiteboard which ultimately has an impact on low student learning outcomes in social studies subjects.

Apart from that, from an administrative perspective, the Learning Implementation Plan (RPP) is only a supplementary administration, so teachers often do not implement the scenarios stated in the RPP and are more concerned about carrying out teaching activities based on what the teacher feels comfortable with as usual. Then in the practice of teaching and learning activities, schools and teachers have prepared good teaching materials or media for learning. However, especially for social studies subjects, there are very few, of course this situation makes the situation even more difficult for students to understand the material to be studied.

This results in students appearing unenthusiastic in learning and feeling bored. In teaching and learning activities, media should be used to explain and to seek students' attention so that their attention is focused on learning, so that the material the teacher wants to convey can be well received by students.

Learning medias makes it simpler for teachers to convey content that students can understand (Baginda et al, 2021). Although they are an integral part of learning activities, their use is also a creative and systematic attempt to create experiences that can support students' learning processes. According to Waryanto in (Asmara, et al., 2015), it can overcome various obstacles that arise, such as communication barriers, passive attitude of students, inconsistent student observation, and low specificity of learning objects; Learning without media is impossible and a secluded study area.

Gerlach & Ely 1971 (Nurfadhillah, et al., 2021) said that media in general are people, materials or events that create conditions that enable students to acquire knowledge, skills or attitudes. More specifically, the definition of media in the teaching and learning process tends to be defined as graphic, photographic or electronic tools for capturing, processing and reconstructing visual or verbal information.

Media functions as explained by Gagne and Briggs (Arsyad, A., 2013) as one of the equipment used in delivering teaching material. The involvement of media use, according to Kreyenhbuhl (Sundayana, 2016) is to make the quality of learning better.

Good media is developed based on student needs and characteristics. This can indicate that the media must be appropriate to the child's psychology. According to Musfiqon (2016) enthusiastic attitudes in the learning process are usually influenced by the use of them. According to Hamalik (2011) students' enthusiastic attitude is an interest, a motivational stimulus, which can be increased by using tools in the form of media.

If it compared the visual and sound methods when learner study with using their both, the learner would get the meaning of subject around 75% if the teacher transferred the subject through visual methods meanwhile sound method or as it knew as speech method got around 12% and other method is 13% (Arsyad, 2013)

Researchers chose the Two Stay Two Stray learning model, to help the learning process. According to Syamsiah (2014), it is in social studies learning also improves student learning outcomes. In line with Riyantika (2018) research which states that its model can increase motivation and learning outcomes in social studies content.

Based on the problems that have been explained, researchers focused on developing audio-visual media in the form of animation as a learning medium for Theme 9 “*Kekayaan Negeraku*”, Sub-theme 3 Preserving the Wealth of Natural Resources in Indonesia (IPS content) PB 1.

This research refers to previous research, Salamah (2022) with the title "Development of social studies audio-visual media". This research shows that the development of audio-visual media is able to support the achievement of student learning motivation in social studies learning activities in class IV as evidenced by the results of the validation test percentage. lecturers with an average percentage score of 88.6% with the criteria "very good" and reinforced by the results of students' responses to its audio-visual obtained a percentage score with an average score of 98%.

This proves that this audiovisual development has met one of the indicators of success criteria, namely the results of student responses which fall into the "very good" interpretation. Furthermore, Fitriyani (2021) with the title "Application of Audiovisual Media in Theme 1 Class 4 as an Effort to Increase Learning Motivation and Learning Activeness of Students in Elementary Schools" with research results: the application of audiovisual media can increase learning motivation and learning activeness in class 4 elementary school students Ngupasan State with success indicators reaching more than 75%, learning motivation 83% and student learning activeness 83%.

Based on previous research that the researcher has presented, this research is intended to present social studies teaching in a more enjoyable way, in the sense of increasing learning motivation and student learning outcomes, therefore the researcher is interested in developing audio-visual learning videos in the form of animations on Theme 9 (*Kekayaan Negeraku*), Sub-theme 3 Conservation of Natural Resource Wealth in Indonesia (social studies content) PB 1. With the research title "its media of development in the Form of Animation to Increase Motivation and Social Studies Learning Outcomes in Class IV Students of SD Negeri 067245 Medan Selayang".

## **RESEARCH METHODS**

This research method used the research and development. Research and Development (R&D) is development research that produces certain products and tests the product's effectiveness. According to Sukmadinata (2013), Research and Development (R&D) is a process or steps to develop a new product or improve an existing product that can be accounted for.

This research uses Thigarajan et al (1974) 4-D development model which consists of four stages, namely the define, design, develop and disseminate stages. The resulting product is an Audiovisual its product. Theme 9 “*Kekayaan Negeriku*”, Sub-theme 3 “*Melestarikan Kekayaan Sumber Daya Alam di Indonesia*” (social studies content) PB 1 Social Studies Content in class IV.

This research will be carried out at SD Negeri 067245 Medan Selayang which is located at Jalan Bunga Asoka Gang Sekolah, Postal Code 20133. This research will be carried out in class IV of elementary school in the even semester of FY 2022/2023.

The subjects in this research consisted of two classes, namely class IV A (27 students) as the experimental class and class IV B (27 students) as the control class. The research object is audio-visual media in the form of animation developed for students.

Audio visual media development procedures were implemented and adapted from the Thigarajan development model. The research model used in this research is a 4-D model development research design (Four D Models), which consists of four stages, namely define, design, develop and disseminate.

**Table 1.** Audiovisual Media Development Draft

No.	Steps for Audiovisual Media Development
1.	Conduct analytical observations to collect information (initial, student, material, task, and learning objective specifications analysis) on audiovisual media that will be used by class IV students at SD Negeri 067245 Medan Selayang.
2.	Product development planning and selection of appropriate learning audiovisual media for Theme 9 “Kekayaan Negeriku”, Subtheme 3 “Melestarikan Kekayaan Sumber Daya Alam di Indonesia” (social studies content) PB 1 and 5.
3.	Carry out test selection, media selection, appropriate format selection
4.	Create initial designs for audio visual media.
5.	The use of instruments for product testing is assessment instruments for material experts, question experts, media experts and practitioner experts.
5.	The use of instruments for product testing is assessment instruments for media, material, subject matter experts and practitioner experts.
6.	The development of audio-visual media in the form of animation that has been developed by researchers is reviewed and revised first (as an improvement).
7.	The development of audiovisual media that has been developed by researchers is reviewed and revised secondly.
8.	As a final product, the final result has been improved and declared fit for use.
9.	Disseminating products in the form of audio-visual media in the form of animations Theme 9 “Kekayaan Negeri Ku”, Sub-theme 3 “Melestarikan Kekayaan Sumber Daya Alam di Indonesia” (IPS content) PB 1 at the school that is the research location, namely SD Negeri 067245 Medan Selayang, and disseminating it in the form of a journal

In this development research, the data collection techniques used were observation, interviews, validation sheets and tests. By using practicality analysis techniques to analyze data from teacher and student response questionnaires. Media practicality can be measured through student response questionnaires and media practicality questionnaires. Data obtained through a questionnaire was analyzed based on the percentage of students who gave answers for each category asked in the questionnaire using the following formula:

$$p = \frac{x}{x \max} \times 100 \quad \text{Yamasari (Santoso, 2015:234)}$$

**Information:**

- P : Score percentage
- X : Amount obtained
- x max : Maximum score

It in the form of animations made from *Capcut* is practical if it reaches a minimum percentage of 61% or a strong qualification. So, the product can be categorized as practical and can be used as a learning medium for Theme 9 (*Kekayaan Negeriku*), Sub-theme 3 “*Melestarikan Sumberdaya Alam di Indonesia*” (social studies content) PB 1 and 5 class IV SD Negeri 067245 Medan Selayang.

Analysis of the effectiveness of the learning media developed was carried out by collecting data, student learning motivation and student learning outcomes after using animated lit. The data analysis technique for this research uses quantitative analysis techniques. By carrying out hypothesis testing, the requirements test is first carried out, requirements test such as normality tests and homogeneity tests.

## RESULTS AND DISCUSSION

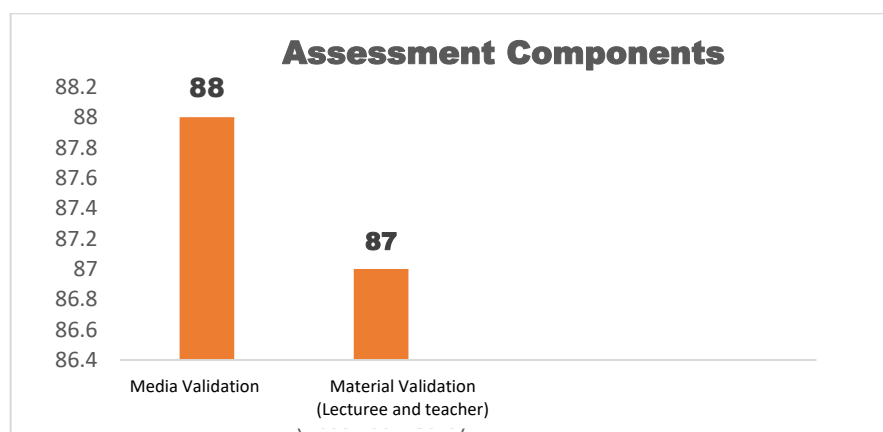
### *Analysis of Expert Validity Results*

Overall validation results from the assessment of the its media in the form of animation that were developed, each assessment from the validator can be seen in table 2 as follows:

**Table 2.** Validator Summary Results

No	Validation	Stage I		Criteria	Stage II		Criteria	Average
		RTP	P%		RTP	P%		
1.	Media Validation	3	60%	Decent Enough	4,4	88%	Very Decent	37
2.	Material Validation (Lecturer)	2,8	56%	Decent Enough	4,3	86%	Very Decent	36
3.	Material Validation (Teacher)	2,6	52%	Decent Enough	4,4	88%	Very Decent	35






Based on table 3, the validation value for the feasibility of it can clearly be seen based on the following diagram:





**Figure 1.** Validator Results Diagram

The diagram that has been presented summarizes the results of the assessments given by experts who have been validated. The score given by the its expert validator was 88%. The score given by learning material expert validators (lecturers and teachers) was 87%. The total score obtained from all validators was 87.5%. This shows that the media that has been developed is in the valid (feasible) category and can be used for trials. Referring to these criteria that the learning media developed meets the valid criteria and can be used.

**Table 3.** Data from the Revision of Audiovisual Learning Media in the Form of Animation by Media Experts

The final result of audiovisual learning media is in the form of animation		
1.	Fixing the teacher's animation (because the animation is intermittent)	
2.	Animation on the media was added to make it more interesting	
3.	Using trigger questions	<p><b>Before :</b></p> <p><b>It doesn't use trigger questions</b></p> 
4.	Adapting the material to the curriculum	
5.	Improved voice over, background sound is too loud so the explanation is less audible.	The voice over has been improved and the background sound has been changed
6.	Add moving animations	<p><b>Before:</b> There are no moving animations</p> <p><b>After:</b> The animation Can be used Move.</p> 

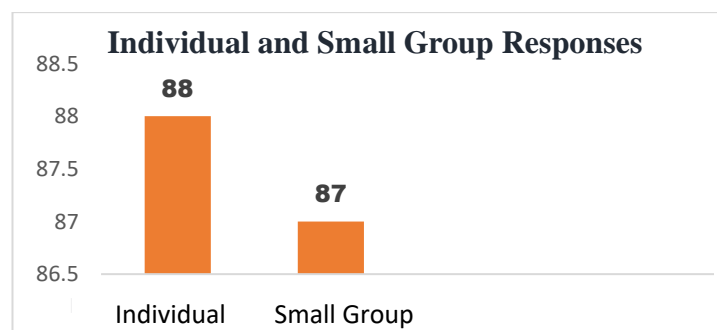
7.	No need to write a lot, it's better to have more explanations	<p><b>Before:</b></p> <p>More writing than pictures</p> <p><b>After:</b></p> 
8	The image size is increased	

**Feasibility of Validating Audiovisual Learning Media in the Form of Animation  
Data from Evaluation Results of Individual and Small Group Responses**

Individual trials were carried out to obtain the level of practicality of the learning media being developed. To measure the practicality of the media that has been developed, researchers used a questionnaire on student responses to the media developed and a teacher questionnaire on responses to using the media. The trial process was carried out at SD Negeri 067245 Medan Selayang which was held on August 8 2023 in Class IV which consisted of 3 students. This subject is chosen according to the student's abilities (smart, medium, weak).

The purpose of this assessment is to test whether the product being developed is practical and easy to use or operate by users. The assessment and response from this individual trial is to find out criticism and suggestions regarding the presentation of the product being studied including aspects of quality, appropriateness of content and media attractiveness. Development of it in the form of animations for social studies subjects with learning material on Natural Resources Conservation.

Data obtained through student response questionnaires were analyzed to obtain the level of accumulation of it developed. The results of the analysis of student responses to the use of it. In the form of animation can be seen that the overall average score was 87%.



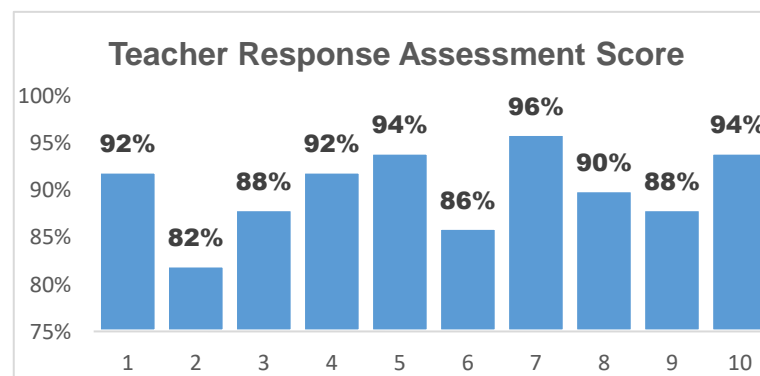
**Figure 2.** Individual & small group responses

The results of individual group trials (consisting of 3 students) and small groups (consisting of 5 students) it developed is classified as practical.

### **Practical Analysis of Individual Students, Teacher Responses, Small Groups and Large Groups**

After being declared valid by the validator, the next step is to validate it in the form of animation with the teacher to determine the level of practicality of the researcher using a questionnaire instrument containing statements. The teacher's response aims to see the level of practicality of it when using the media in the learning process.

Based on the table presented, it can be seen that the response given by teachers was 87.5%, this category indicated "Very Practical". So, that the media developed is suitable for use as it. The results of individual group trials (consisting of 3 students) and small groups (consisting of 5 students) it developed is classified as practical.



**Figure 3.** Score Teacher Response

### **Assessment of Student Response Tests to Audiovisual Learning Media**

A large group trial was carried out at SD Negeri 067245 Medan Selayang on August 14 2023. It consisted of 27 class IV students (all students). This trial aimed to see the level of practicality of audiovisual learning media in the form of animation. Based on the assessment of student responses from 20 indicators with a 5 scale assessment, the average result was 90%. This shows that the assessment is stated in the "Very Practical" category for use.

It is known that the use of audio-visual media in the form of animation received a positive response on the teacher response questionnaire instrument, the material presented was in accordance with KD and learning objectives. Using the product can increase students' enthusiasm in participating in learning. The teacher's response received a score of 88% which is included in the "Very Practical" category. Using the product based on the teacher's response has no problems.

Most students chose strongly agree and agree as answer choices. During the research, no obstacles were found in using the media. Students look enthusiastic about participating in learning. Students easily understand the material through explanations from the media. Student responses when using the products that have been developed are very enthusiastic and enthusiastic. Student responses received a score of 90% which is included in the "Very Practical" category. That the use of it in the form of animation was practical to use.

The importance of knowing the importance of knowing the practicality of a product aims to find out whether there are obstacles when the product is used in learning. In this research, the category "Very Practical" was obtained, in line with research conducted by Mashuri (2020) stating that a product can be said to be practical if the product developed is easy to use



in the learning process. Furthermore, Hasanah (2020) states that the convenience referred to is convenience for users, namely teachers and students. For teachers, the convenience obtained is that it makes it easier for teachers to manage, direct and improve student activities. Meanwhile, for students themselves, ease of use of the product is indicated by interest, ease of understanding the material, and helping students in learning activities.

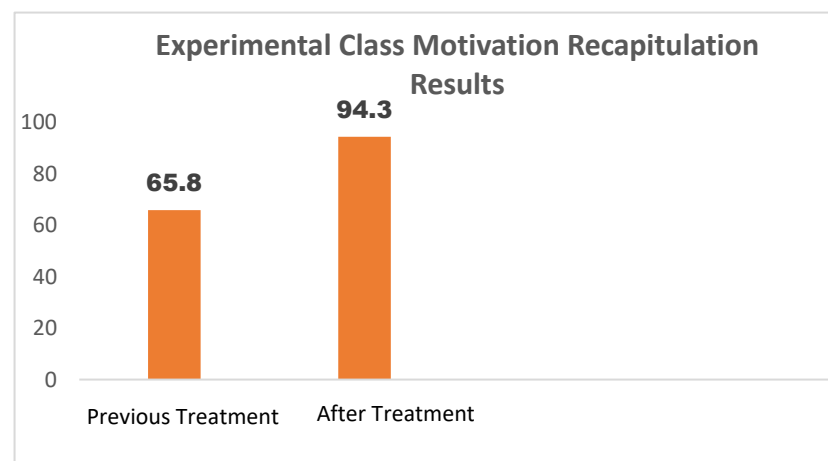
### ***Effectiveness of Audiovisual Learning Media in the Form of Animation***

After carrying out the expert validation stage, feasibility and practicality of the learning media that has been developed, the next stage is the effectiveness test. Media effectiveness is obtained based on motivational values and student learning outcomes. To measure motivation, researchers used a questionnaire as a measuring tool, while to measure learning outcomes they used pretest posttest. The following data was obtained:

#### **Learning Motivation**

To see the effectiveness of the media, it is obtained by looking at student motivation which is measured using a questionnaire instrument. Measurements of increasing student learning motivation were carried out on 27 class IVA (Experimental Class) students. Before the test is carried out, researchers provide media that has passed the validation process as learning media that will be used in teaching and learning activities (KBM). The achievement of product development objectives can be determined through the results of measuring learning motivation before using the media and then comparing it with the questionnaire filled out after using audiovisual learning media in the form of animation so that the score for increasing Learning Motivation can be determined.

Based on the results of the recapitulation of students' social studies learning motivation before and after using it in the form of animation, there was a significant increase. The following is a recapitulation of student motivation before and after using the media that has been developed:



**Figure 4.** Results of recapitulation of experimental class learning motivation

In accordance with the table above, that the development of it in the form of animation can increase students' social studies learning motivation from an average score of 66% to 86%.

The following are the results of the paired T test data:

**Table 4. T Test Results**

<b>t-Test: Paired Two Sample for Means</b>		
	<b>Before</b>	<b>After</b>
Mean	52.80769231	74.69230769
Variance	14.08153846	15.90153846
Observations	27	27
Pearson Correlation	-0.0862411	
Hypothesized Mean Difference	0	
Df	25	
<b>t Stat</b>	<b>-19.99509078</b>	
P(T<=t) one-tail	0.00000000	
t Critical one-tail	1.70814076	
<b>P(T&lt;=t) two-tail</b>	<b>0.00000000</b>	
t Critical two-tail	2.059538553	

Based on the table presented, it can be explained that the difference test with the Paired Two Samples for Means t test obtained t Stat = -19.99509078, which means that motivation before using the developed media is lower than after using the product, with sig(p) = 0.00000 < 0.05 This means that there is a significant difference between before and after using audiovisual it in the form of animation. Based on the recapitulation of student learning motivation scores, this shows that the development of it in the form of animation can increase learning motivation.

Testing of it in the form of animation which was developed using stages that have obtained results. Based on the test results, it was stated that the validation results showed that audio-visual it was suitable for use in learning. Before carrying out validation, there are several stages according to the 4D research model used. Starting with an analysis of the students and the learning resources used, it was discovered that one of the problems encountered was the low social studies learning outcomes for class IV students and the minimal learning resources used, only textbooks were used in the learning process in class IV. The second stage is the design stage which is carried out by designing the product, creating teacher animations using the Zepetto application, selecting images, background, sound, after which they are edited via the Capcut application, to add animations for the research teacher using the VN application, this is done so that the results obtained are better maximum.

At the develop stage, a feasibility test is carried out by asking for help from material validators and media. This feasibility test was carried out twice in order to obtain suggestions and input provided by experts to improve the audiovisual learning media in the form of animation being developed. The validation results of material experts (Lecturers and Teachers) obtained a score of 87%. With these results, it developed is categorized as suitable for testing on students. Furthermore, the assessment from media experts obtained a score of 88% in the valid (feasible) category.

After, it in the form of animation has been validated, of course it needs improvement. Input and responses from material expert validators and media experts stated that they should improve the initial appearance (change the title and add teacher animation). The images on it in the form of animation are added to make the appearance more attractive. The results obtained from material experts and its experts are suitable for testing in the field with revisions.

The final stage is dissemination, by distributing it in the form of animation at SD Negeri 067245 Medan Selayang, where the elementary school is where the research was carried out. Furthermore, researchers also disseminated it through journals so that it could be used as an alternative for teachers and readers. This is in line with Putri, M. A., & Jusra, H. (2022.) research, where the results of the feasibility test for audio-visual media with Canva-based animation obtained 86% in the very feasible category, then the material test of 84% received the very feasible category.

## CONCLUSION

The feasibility results for audiovisual learning media in the form of animation obtained 87% for material experts (lecturers and teachers), media experts 88% of the total assessment results for the media developed were included in the valid (feasible) category. Audiovisual learning media in the form of animation developed practically for use based on teacher response questionnaire instruments and student responses. Teacher responses obtained were 88% in the "Very Practical" category and student responses were an average of 90% in the "Very Practical" category. The audiovisual learning media in the form of animation that was developed has met the effective criteria by increasing student motivation and learning outcomes, social studies learning for class IV-A students as an experimental class. This can be seen from the motivation and learning outcomes that increase by using audiovisual learning media in the form of animation which is higher than the learning outcomes in class IV-B as a control class using print media. These results can be seen from the results of learning motivation that have been measured, for the experimental class from 66% to 86%, while learning motivation in the control class before using print media was 67% to 75% after using print media. However, the results are not that much improved compared to using audiovisual learning media in the form of animation that has been developed. Furthermore, the N-gain of learning outcomes (Experimental Class) is 0.8 with "High" criteria, while the N-gain of learning outcomes (Control Class) is 0.2 with "Low" criteria.

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