

## The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli



Putri Regina Sadu<sup>1</sup>, Nashrullah<sup>2</sup>, Muhammad Aqil<sup>3</sup>, Rizal<sup>4</sup>, Dyah Rahmawati<sup>5</sup>

<sup>1,2,3,4,5</sup>Universitas Tadulako

**ABSTRACT:** This study aims to determine the effect of the use of sticky board media on student learning outcomes in science subjects in grade IV of SD Inpres 3 Birobuli. This study uses a quantitative approach with a quasi experiment type and Non Equivalent Control Group Design. The population in this study is all students of classes IV A and IV B, with a sample of class IV B as the experimental class and IV A as the control class, each totaling 25 students. The data collection techniques used include tests, observations, and documentation. Data analysis was carried out by normality test, homogeneity test, and hypothesis test using paired sample t-test through the IBM SPSS Statistics 26 program. The results of the analysis showed a significance value (2tailed) of 0.000 which was smaller than the alpha value of 0.05. Thus, the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected. This means that the use of sticky board media has a significant influence on improving student learning outcomes. Therefore, it can be concluded that the sticky board media is effectively used as a learning tool in improving student learning outcomes in science subjects in grade IV.

**KEYWORDS:** Temple board media, Social studies learning outcomes, Quasi experiment, Paired sample t-test, Grade IV students

### INTRODUCTION

Education is a process that is carried out consciously, planned, and systematically to develop individual potential, knowledge, and skills through various forms of learning experiences. This process can take place both through formal channels, such as in schools and educational institutions, or informally in daily life. According to the views of Alpian and his colleagues (2019), education has a vital role in shaping the quality of human life. In the national context, every Indonesian citizen has the same right to obtain education as part of efforts to improve their self-quality. Education is seen as a lifelong process, with the main goal of helping individuals to be able to adapt to the changing times and live an independent and productive life.

Meanwhile, IPAS subjects are understood as a form of integrative learning designed to develop critical, systematic, and logical ways of thinking in students. Mazidah and Sartika Dalam (Anggita et al., 2023) said that IPAS aims to provide a holistic and meaningful learning experience, so that it is able to improve students' cognitive abilities and skills. According to Agustina and her colleagues in the same source, the Independent Curriculum combines science and social studies subjects into a single unit called IPAS. The purpose of this merger is to encourage students' interest in learning, foster curiosity, and increase their active involvement in learning. At the elementary school level, IPAS is often considered a fun and easy-to-understand subject because it is closely related to students' daily lives. This has a positive impact on increasing learning enthusiasm and achieving more optimal academic achievement.

According to Martono in (Khotima et al., 2023), a sticky board is a board-shaped media that is used to paste various information such as notes, messages, school activities, and rules that apply in the school environment. Along with the times, the sticky board has undergone a functional transformation into a learning medium that can display important information in various educational activities. In the context of learning, a sticky board is used by pasting pieces of images or symbols related to the material being studied. This media is designed to stimulate students' thinking skills, create a fun learning atmosphere, and help students understand the material more effectively. In terms of functionality, sticky boards can function as demonstration aids, flannel boards, exhibition media, mading, means of conveying information, visualization tools, and magnetic boards. Generally, a sticky board has four main functions, namely: 1) conveying information or pengumuman; 2) displaying students' work; 3) to be a tool for teachers when demonstrating the material; and 4) become a medium for pasting posters.

## **The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli**

Meanwhile, learning outcomes are achievements obtained by students as a result of the learning process that has been passed. According to Hamalik in (Sukatmi, 2024), learning outcomes include various dimensions such as behavior, values, understanding, attitudes, and perceptions formed in students. Self-learning is not just memorizing information, but is a mental process that causes changes in a person as a result of their interaction with the surrounding environment.

Based on the results of observations that have been made, it was found that in Natural and Social Sciences (IPAS) learning activities, most students are still less focused and do more other activities in the classroom. Their interest and motivation to read IPAS materials are also relatively low. This is seen when teachers ask students to read the subject matter, but only a small percentage of them do so. During the learning process, teachers are still dominant in using conventional methods without utilizing learning media that can encourage active student participation, so that the classroom atmosphere becomes less attractive. Previously, grade IV teachers had tried to use audio-visual media in learning and it proved to be effective in attracting students' attention and increasing their enthusiasm. Therefore, researchers are interested in trying to use sticky board media as an alternative to improve student learning outcomes in science subjects.

The results of the researcher's interview with the fourth grade homeroom teacher at SD Inpres 3 Birobuli revealed that the achievement of student learning outcomes is still relatively low. The homeroom teacher said that out of 31 students, as many as 18 students had not met the Minimum Completeness Criteria (KKM). This shows that most students have not reached the standard of learning success in science subjects, where the KKM set by the school is 70. Only 13 students or around 41.93% have managed to meet the KKM, while the rest, namely 58% or 18 students, have not reached this standard.

Based on these conditions, the researcher intends to apply sticky board media in science learning in grade IV of SD Inpres 3 Birobuli. According to Sumiharsono and his colleagues in (Mutia, et al., 2023), sticky board media is a form of visual communication media used to present information. Meanwhile, according to Heryadi, T., and colleagues in the same source, the sticky board has several general functions, namely: 1) as a means of conveying information or announcements; 2) as a medium to display students' works; 3) as a demonstration tool for teaching materials for teachers; and 4) as a place to put educational posters.

### **LITERATURE REVIEW**

The word medium comes from the Latin word "medium" which literally means middle, intermediary or introduction. In Arabic, the media is an intermediary or conveyor message from the sender to the recipient of the message. In the learning process, the media is an intermediary between the source of messages and the recipient of the message, stimulating thoughts, feelings, attention, and willingness so that they are encouraged and involved in learning. According to the National Education Association (NEA) in Ina Magdalena, media is a device that can be manipulated, heard, seen, read, and its instruments can be used properly in teaching and learning activities and can affect the effectiveness of instructional programs (Ina Magdalena, 2021; NEA; Ramadani, et al.2023).

According to Sarifudin in (Agustina 2024), Sticky Board media is a tool or method that uses a sticky board as a means to convey information, concepts, or learning materials. A sticking board can be a whiteboard, a paper board, or any other board used to attach pictures, text, or diagrams that are relevant to the material being taught. This media can help visualize and clarify the concepts taught to students. Sticky Board means a board that serves as a message board and as a display platform that plays an important role in school activities. Sticky Board Media can be very useful in the learning process allowing students to facilitate visualization, collaboration, and understanding of concepts. Sticky Boards can also increase student engagement in facilitating group discussions, as well as provide opportunities for students to present their thoughts in a more interactive way.

Learning outcomes are the basis for measuring and reporting students' academic achievement, and are key to developing more effective learning designs that have alignment between what students will learn and how they will be assessed. As a final product of the learning process, learning outcomes are considered to be able to show what students have known and developed (Motoh, et al. 2022)

According to Hasanah in (Pratiwi 2024), IPAS is an integrated subject designed to help students become more capable of critical and analytical thinking. The purpose of learning using the IPAS approach is to improve skills and offer experience. Studies in science and social studies are integrated into IPAS under an autonomous curriculum. IPAS aims to foster curiosity, interest, and active engagement alongside the potential to advance knowledge and skills. In fact, because the content of science is in line with experiences connected to daily life, there is a strong interest in learning science, learning will feel more enjoyable, and students achieve the desired learning outcomes, science is actually seen by elementary school students as a fun and simple subject.

# The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli

## RESEARCH METHODS

This research was carried out at SD Inpres 3 Birobuli which is located at Jalan Banteng No. 30, South Palu District, Palu City, Central Sulawesi Province, in the even semester of the 2025/2026 school year. Data collection in this study was carried out through several techniques, namely direct observation of learning activities, giving tests to students, and collecting relevant documentation. The type of research applied is quantitative research with an experimental approach. Based on Sugiyono's opinion in (Puspita & Purwo, 2019), the experimental method is a research approach that aims to determine the impact of a certain treatment on other variables in a strictly controlled situation. The research design used is *Quasi Experimental Design with a Nonequivalent Control Group Design* model. In this design, researchers involved two groups, namely the experimental group and the control group, each of which was given a *pretest* to find out basic abilities before the treatment was carried out. Furthermore, only the experimental group was given treatment in the form of the use of certain learning media, while the control group did not receive the treatment. After the learning process is completed, both groups are given a final test (*posttest*) to find out the difference in learning outcomes as a result of the treatment that has been given. The Research Design is shown in the following Figure.

Table 3. 1 Research Design

Group	<i>Pretest</i>	Treatmen	<i>Posttest</i>
Experiment	O1	X	O2
Control	O3		O4

Information:

**O1** : *Pre-test* (before being given treatment in the experimental class).

**O2** : *Post-test* (after being treated in the experimental class).

**O3** : *Pre-test* (se not yet given treatment in the control class).

**O4** : *Post-test* (after being given a test in the control class).

**X** : The use of Pancasila board media in learning in experimental classes.

## RESULTS

This research was carried out on grade IV students at SD Inpres 3 Birobuli with an initial target of 61 students. However, when the research activities took place, only 50 students could follow the entire process. The absence of 11 students was caused by various reasons, namely 4 students were sick, 5 students applied for permission, and 2 students did not provide information. Thus, the data analyzed only came from 50 students who attended and actively participated. This study aims to find out the extent to which the use of sticky board media can have an influence on improving student learning outcomes in science subjects. The method used in this study is a quasi-experimental design approach with a non-equivalent control group design, which involves two different groups: one group as an experimental class that receives treatment using sticker media, and the other as a control group that undergoes learning using conventional methods.

To measure the achievement of student learning outcomes, success indicators in the form of Minimum Completeness Criteria (KKM) that have been set by the school are used. The KKM functions as a benchmark in assessing the achievement of learning objectives. The grades obtained by each student will be converted into numbers and compared to the minimum standards that have been determined. At SD Inpres 3 Birobuli, the KKM score for IPAS subjects is set at 70. Therefore, students who obtain scores below these numbers are categorized as not completing learning, while those who reach or exceed the KKM are considered to have met the expected competency standards in the learning process.

The learning process in the experimental classroom that utilizes sticky board media is carried out through a series of structured stages. The first stage begins with motivation and explanation of learning objectives. Deep stage In this opening, the teacher greeted the students warmly and invited them to start the activity by praying together. After that, the teacher conducts light interactions by asking how students are doing to create a comfortable and fun atmosphere. Then, the teacher conveys the learning objectives that they want to achieve and relates the new material with the knowledge that students have previously had through perception activities, in order to create a meaningful relationship between old experiences and new information.

The next stage is the delivery of material. In this section, the teacher explains the content of learning systematically by using sticky board media as a visual aid that attracts students' attention. The use of this media aims to make it easier for students to understand the concepts being studied. After the explanation is finished, the teacher continues by giving several questions to the

## **The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli**

students to gauge their level of understanding of the material that has been presented. The next step is the organization of students in the form of group work. The teacher divides the students into four small groups of six to eight members each. Each group received a Student Worksheet (LKPD) along with sticky board media as a tool in the collaborative discussion and problem-solving process.

The fourth step is to guide group learning activities. At this stage, the teacher provides instructions on how to use sticky board media in completing assignments in the LKPD. The teacher also actively accompanies the students during the discussion process to help them if they encounter difficulties in understanding the material or solving problems. The fifth stage is the evaluation of learning outcomes. In this stage, each group is asked to present their work in front of the class using sticky board media as a visual support. Teachers give appreciation in the form of awards or rewards to groups that perform and show active participation. To close the learning activity, the teacher strengthens students' understanding through affirmation of the material from the results of the discussion, then shares multiple-choice questions that must be done individually as a form of final evaluation of the mastery of the material that has been taught.

The sixth stage in the learning process is drawing conclusions. At this stage, the teacher and the students reflect on the material that has been learned. The teacher guides the students in compiling the core of the day's learning, in order to strengthen their understanding of the material that has been discussed. In addition, teachers also explore students' responses regarding the learning experience using sticking board media, to find out the extent to which this method affects their motivation and understanding. As the closing of the activity, all students and teachers recited prayers and gave greetings as a form of respect and instilling character values. Meanwhile, in the control class, the order of learning activities tended to be similar, but the media used was different. Teachers only rely on printed books and lecture methods and assignments without involving visual media such as sticky boards, which makes the learning process more conventional.

The results of the analysis of students' pretest scores in the experimental class showed a diversity of initial achievements. The highest score was recorded at 70 which was categorized as sufficient, while other scores were in the range of 55 (less) and 40 (very less). On the other hand, students in the control class were only able to obtain the highest score of 50, which was in the poor category, and the lowest score reached 20, which was in the very poor category. This data gives an idea that students' initial ability in the control class was relatively lower compared to the experimental class before the learning intervention.

After the implementation of the treatment through the use of sticky board media, the achievement of student learning outcomes in the experimental class increased significantly. In the final test or posttest, students are able to achieve the highest score of 95 which is categorized as excellent, followed by scores of 80 (good), and 70 (adequate). On the other hand, the development in the control class was not so rapid. The highest students in this class only achieved the sufficient category, with scores of 55 (less), and 35 (very less). The average pretest score of students in the experimental class was 54.40, while in the control class it was only 34.00. After treatment, the average posttest in the experimental class jumped to 85.60, while the control class only increased to 56.40. This indicates a clear gap between the two groups in terms of improved learning outcomes.

These differences underline the effectiveness of the use of sticky board media in supporting the learning process. In the experimental class, the level of student learning completeness in the science subject showed satisfactory achievements, in line with the learning expectations. This success is inseparable from the role of sticky board media that makes the material easier to digest and interesting. Students become more enthusiastic, active in group discussions and when delivering their work. Learning feels like a play activity that fun, creating Learning Atmosphere dynamic. On the other hand, the control class experienced saturation due to the lack of variety in learning methods, which had an impact on the low learning outcomes of students.

Data analysis through the Paired Sample T-Test statistical test yielded a significance value of 0.000, which is much smaller than the standard significance value of 0.05. Thus, an alternative hypothesis ( $H_a$ ) is accepted, which means that there is a significant influence of the use of sticky board media on improving student learning outcomes in science subjects in grade IV of SD Inpres 3 Birobuli. These findings reinforce the belief that learning media innovation is critical in creating effective and meaningful learning experiences for elementary school students.

### **A. Descriptive Analysis Results**

#### **1. Results of Pretest Data Analysis (Initial Data)**

The initial test (*pretest*) has been carried out in two groups, namely the experimental class and the control class, each consisting of 25 students. The main purpose of this test is to get an idea of the student's initial level of understanding of the material "My Region and Natural Resources" before applying different learning treatments to the two classes. The question instruments used in the pretest have gone through a thorough validity and reliability test process to ensure that the questions have good quality and are able to measure student competence accurately and consistently.

# The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli

Table 4.1 Pretest Analysis Results Descriptive Statistics						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
Pretest-Eks	25	30	40	70	54.40	7.948
Pretest-Kon	25	30	20	50	34.00	6.922
Valid N (listwise)	25					

Based on the data presented in Table 4.1, information was obtained that the average score (mean) of students in the experimental class reached 54.40, while students in the control class had an average of 34.00. This shows that there is a difference in the level of initial ability between the two classes, although the difference is not very significant. In the experimental class, the lowest score achieved by students was 40 and the highest score was 70. Meanwhile, in the control class, the minimum score was 20 and the maximum score was 50.

## 2. Posttest Analysis Results (Final Test)

The final test or posttest was carried out in both groups, namely the experimental class and the control class, which each consisted of 25 students. The purpose of this posttest is to evaluate the extent of students' understanding of the material "My Region and Natural Resources" after they have followed the learning process that has been implemented. In addition, the posttest also functions as a measuring tool to assess the effectiveness of the learning methods that have been implemented, as well as to find out the extent to which student learning outcomes can improve after being given different treatment in each class.

Table 4.2 Posttest Analysis Results Descriptive Statistics						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
Posttest-Eks	25	25	70	95	85.60	6.819
Posttest-Kon	25	35	35	70	56.40	9.412
Valid N (listwise)	25					

Based on the data listed in Table 4.2, the results of the posttest conducted in the experimental class using sticky board media showed an average score of 85.60. The lowest score obtained is 70, while the highest score reaches 95. In contrast, in the control class that did not use additional learning media and relied only on the textbooks of grade IV students, the average score obtained was 56.40, with the lowest score of 35 and the highest score 70. Analysis of posttest results showed a significant difference between the two classes, where the experimental class recorded a much higher average score compared to the control class.

From these findings, it can be concluded that the application of sticky board media has a positive impact on the learning outcomes of grade IV students at SD Inpres 3 Birobuli. The average difference in scores between the experimental class and the control class showed that the use of sticky board media could improve student learning outcomes in science subjects. This indicates that the media of the sticking board has a significant influence on the academic achievement of students in the learning process in grade IV.

## B. Prerequisite Test

### 1. Normality Test

Normality tests are performed to determine whether the data obtained follows normal distribution or not. This assessment is important because if the data is not normally distributed, it will not affect the representation of the data to the population as a whole. In this study, normality tests were carried out on the pretest and posttest scores of student learning outcomes in the experimental class and the control class. To test the normality of the data, the IBM SPSS Statistics 26 program was used as an analysis tool.

The criteria applied in the normality test are as follows: if the Significance value (Sig) is greater than 0.05, then the data is considered to be normally distributed. Conversely, if the Sig value is less than 0.05, the data is considered not to be normally

## The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli

distributed. The results of the normality test in the experimental and control classes, recorded in Table 4.3, provide a clearer picture of whether the data from both groups follow the normal distribution or not.

Table 4.3 Pretest and Posttest Data Normality Test					
Tests of Normality					
Kelas		Shapiro-Wilk			
		Statistic	Df	Sig.	
Hasil	Pre-test Eksperimen	.961	25	.425	
	Post-test Eksperimen	.929	25	.082	
	Pre-test Kontrol	.955	25	.319	
	Post-test Kontrol	.950	25	.214	

Based on Table 4.3, the results of the normality test conducted using the Liliefors test (Shapiro-Wilk) through the IBM SPSS Statistics 26 program show that all data obtained in this study have a significance value (Sig) greater than 0.05. For the pretest Sig value, the experimental class was recorded as 0.425, which is greater than 0.05, while the control class had a Sig value of 0.319, which is also greater than 0.05. As for the posttest Sig value, the experimental class showed 0.082 and the control class 0.214, both of which were also greater than 0.05. Thus, it can be concluded that the data obtained from both classes are normally distributed, which makes it possible to proceed with the next analysis.

### 2. Homogeneity Test

Homogeneity testing is a statistical technique that aims to evaluate whether two or more sample groups come from populations that have similar variations. In this study, the homogeneity test was carried out using the Levene test with the help of the IBM SPSS Statistics 26 program.

The criteria used to determine population homogeneity are as follows: if the significance value obtained is greater than or equal to the  $\alpha$  level that has been set, which is 0.05 (5%), then it can be concluded that the data group comes from a population that has homogeneous variance. The homogeneity test results for the experimental class and the control class can be seen in Table 4.4.

Table 4.4 Homogeneity of experimental classes and control classes					
Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Posttest	Based on Mean	.429	5	18	.823
	Based on Median	.195	5	18	.961
	Based on Median and with adjusted df	.195	5	15.214	.960
	Based on trimmed mean	.392	5	18	.848

Based on Table 4.4, the significance value obtained for the experimental class and the control class was 0.823, which is greater than the established significance level ( $0.823 > 0.05$ ). Based on these results, it can be concluded that the two groups have uniform or homogeneous variance.

### 3. Uji Hypothesis

Hypothesis testing aims to assess the truth of a claim based on data and determine whether the claim is statistically acceptable or should be rejected. In this study, a test to determine the effect of the use of sticky board media on student learning outcomes in science subjects in grade IV of SD Inpres 3 Birobuli was carried out using Paired Sample T-Test analysis. This analysis process is carried out using the IBM SPSS Statistics 26 program to process existing data. The hypothesis proposed in the Paired Sample T-Test test is as follows:  $H_a$ : The use of sticky board media has an influence on student learning outcomes.  $H_0$ : The use of sticky board media does not affect student learning outcomes.



## The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli

The test is performed at a significance level of 5% (0.05), with the decision criteria set as follows: if the significance value is greater than 0.05, then the alternative hypothesis ( $H_a$ ) is rejected and the null hypothesis ( $H_0$ ) is accepted. Conversely, if the significance value is less than 0.05, an alternative hypothesis is accepted and a null hypothesis is rejected.

The results of the hypothesis test using the Paired Sample T-Test conducted with the help of IBM SPSS Statistics 26 can be seen in Table 4.5.

Table 4.5 Paried Test Results Sample T Test								
Paired Samples Test								
Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	Sig. (2-tailed)
			n		Lower	Upper		
Pair 1	PRETEST-EKS	-31.200	7.810	1.562	-34.424	-27.976	-	
	POSTEST-EKS						19.974	.000

Based on the results of the analysis listed in Table 4.5, it is known that the significance value of the *Paired Sample T-Test* is 0.000. This value is well below the significance threshold of 0.05 ( $0.000 < 0.05$ ), so it can be concluded that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. This means that there is a significant difference between student learning outcomes before and after the use of sticky board media. Thus, the use of sticky board media has a real positive influence on improving student learning outcomes in science subjects in grade IV of SD Inpres 3 Birobuli.

### CONCLUSION

Based on the results of data analysis, a significance value of 0.000 was obtained. Since the significance value of the t-test is  $< \alpha$  ( $0.000 < 0.05$ ), the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected. Thus, it can be concluded that the use of sticky board media has an effect on the learning outcomes of grade IV students at SD Inpres 3 Birobuli. There is a change in the level of student learning outcomes in experimental classes that use sticky board media. Temple board media can improve student learning outcomes because unknowingly students learn while playing and do not get bored quickly so that they attract students' attention and make it easier for students to understand the content of the material.

### ACKNOWLEDGMENT

The author would like to express his deepest gratitude to all parties who have provided support in the preparation of this article. Especially to supervisors who have provided guidance and direction during the research process. I would also like to thank the author's family and friends who have provided support, encouragement, and motivation during the writing process.

### REFERENCES

- 1) Angely Noviana Ramadani, Kartika Chandra Kirana, Umi Astuti, & Arita Marini. 'THE EFFECT OF THE USE OF LEARNING MEDIA ON THE WORLD OF EDUCATION (LITERATURE STUDY)'. *Journal of Basic and Social Education Humanities* Vol.2, No.6April2023
- 2) Anggita, Atikah Dewi, et al. "Analysis of Students' Learning Interest in Scientific Learning in Grade 4 Elementary School N Panggung Lor." *Inventa*, vol. 7, no. 1, 2023, pp. 78–84,
- 3) Agustina, G., (2024) 'The Influence of Sticky Board Media in Increasing Science Learning Interest in Elementary School Students in Grade IV Girl Cluster, Cisaat District, Sukabumi Regency', *Thesis (2024) Nusa Putra University*
- 4) Fita Endah Pratiwi, Afriatun Afriatun, and Anggun Badu Kusuma, 'Efforts to Improve Social Science Learning Outcomes through the Integrated Problem Based Learning Model of TaRL in Grade IV Students of SD Negeri Datar', *Sinar Dunia: Journal of Social Research in Humanities and Education*, 3.3 (2024), pp.165–74, doi:10.58192/sidu.v3i3.2443
- 5) Khotimah, Khusnul, et al. "The Application of Sticky Board Media to Improve Learning Outcomes in Flat Building Materials for Grade IV Students of SDN Karang Sari 1 Demak. " *UPGRIS National Seminar*, 2023, pp. 127–35,
- 6) Motos, Theophilus C., et al. "The Use of Video Tutorials to Improve Social Studies Learning Outcomes of Grade VII Students of SMP Negeri 3 Tolitoli." *Madako Journal of Educational Technology*, vol. 01, no. 01, 2022, pp. 1–17,

## The Effect of The Use of Sticky Board Media on Student Learning Outcomes in Science Subjects in Grade IV of SD Inpres 3 Birobuli

- 7) Norra Mutiara.K, Rina Dwi.S, & Fenny Roshayanti. 'Analysis of Learning Motivation through Sticky Board Media on Clothing Basic Materials in Class IIIB'. *PGSD Scientific Journal FKIP Mandiri University*, ISSN Print : 2477 – 5673 ISSN Online : 2614 - 722X Volume 09 Number 02, June 2023
- 8) Puspita, Ari Metalin Ika, and Suciati Purwo. "The Influence of Literacy-Based Teaching Materials with a Contextual Approach on Elementary School Student Learning Outcomes." *Al-Aulad: Journal of Islamic Primary Education*, vol. 2, no. 1, 2019, pp. 1–7,
- 9) Sukatmi, Ilmu, Jurnal, 'The Relationship of Learning Theory with Learning Outcomes in Islamic Religious Learning', 2.1 (2024), pp. 177–86
- 10) Yayan Alpian, Sri Wulan Anggraeni, Unika Wirahati, & Nizmah Maratos Soleha. 'The Importance of Education for Humans'. *Journal of Buana Devotion* Vol. 1 No 1, February 2019 ISSN 2657-0203



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.