

# The Influence of Gadget Use and Teacher Creativity Through Motivation on Students Learning Outcomes of Science

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Received: July 21, 2024

Revised: August 31, 2024

Accepted: September 23, 2024

Published: September 30, 2024

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DOI: [10.29303/jppipa.v10i9.8594](https://doi.org/10.29303/jppipa.v10i9.8594)

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**Abstract:** This research aims to provide empirical evidence regarding the influence of gadget use and teacher creativity through motivation on learning outcomes in class VI students at SD Negeri 10 Bebesen. In this research, the author used secondary data and primary data. Secondary data was obtained from the Central Aceh District Education Office, while primary data was obtained from questionnaires for students at SD Negeri 10 Bebesen. The analysis model used is path analysis with a t-test, F-test, and coefficient of determination test. Based on partial test results (t-test) it shows that the use of gadgets has a positive and significant effect through motivation on the learning outcomes of Class VI students at SD Negeri 10 Bebesen, this is proven by the calculated t value (1.95) which is greater than the t table (1.67) with a value significance (0.01) is smaller than the significance limit (0.05). Teacher Creativity has a positive and significant effect through Motivation on Class VI Student Learning Outcomes at SD Negeri 10 Bebesen, this is proven by the calculated t value (1.82) which is greater than the t table (1.67) with a significance value (0.01) which is smaller than the significance limit (0.05).

**Keywords:** Gadgets; Learning Results; Motivation; Teacher Creativity

## Introduction

Learning outcomes reflect the achievements obtained by individuals after participating in the education or learning process. This process includes acquiring new knowledge, developing skills, and deep understanding of the material studied. Specifically, learning outcomes include the ability to apply knowledge and skills in real situations and internalize values or attitudes that may change along with the learning process (Ibrahim & Abadi, 2018). Evaluation of learning outcomes can be carried out through various methods, such as exams, assignments, projects, or direct observation, which aim to measure individual achievement in achieving predetermined educational goals (Iskandar et al., 2022). Thus, learning outcomes not only reflect what has been learned but also the extent to which individuals have understood and applied this learning in their lives (Fromm et al., 2021).

Learning outcomes assessment is a structured process for measuring individual achievement in achieving predetermined learning goals (Triana et al., 2023). The main purpose of this assessment is to evaluate students' understanding, knowledge, skills, and attitudes after participating in an educational program or learning activity (Siregar, 2023). This assessment process involves setting clear goals, developing appropriate evaluation instruments, such as exams, assignments, or projects, as well as implementing these instruments to collect data about individual achievements (Viyanti et al., 2023). The evaluation data is then analyzed systematically to provide an accurate picture of the extent to which students have met the set learning standards. The assessment results are used as a basis for providing constructive feedback to students and making decisions regarding improving learning in the future (Alt et al., 2023).

## How to Cite:

Lubis, R. D., Iqbal, M., & Wahyuni, S. (2024). The Influence of Gadget Use and Teacher Creativity Through Motivation on Students Learning Outcomes of Science. *Jurnal Penelitian Pendidikan IPA*, 10(9), 6287–6297. <https://doi.org/10.29303/jppipa.v10i9.8594>

Thus, the assessment of learning outcomes is not just a measurement of academic achievement, but also a comprehensive evaluation of individual development in achieving the competencies and understanding expected from an educational program (Yusop et al., 2022). One of the crucial factors that influences student success in the learning process is motivation. This motivation is the main driver that makes students study more actively, diligently, and with full concentration. Learning motivation reflects a person's efforts to mobilize, direct, and maintain their behavior to achieve the desired goals (Dwivedi et al., 2021). A high level of motivation in learning has a direct impact on student learning outcomes; the greater the motivation, the greater the effort and dedication they show, which ultimately influences the quality of their learning achievements (Steinmayr et al., 2019). Motivation is seen as a mental drive that drives and directs human behavior, including learning behavior (Bandhu et al., 2024; Urhahne & Wijnia, 2023).

Learning achievement can be interpreted as encouragement to overcome obstacles, demonstrate abilities, and strive to complete difficult tasks well and quickly (Lodge et al., 2018). Learning motivation also influences students' attitudes toward the learning process, with high motivation encouraging them to be more active in facing learning challenges. However, the reality on the ground shows that students' learning motivation at SD Negeri 10 Bebesen is still low, as reflected in the behavior of sleepy students, who lack enthusiasm or are unresponsive to learning. This situation highlights the need for further efforts to increase student learning motivation, which is a key factor in achieving optimal learning outcomes (Faradiba et al., 2024).

The role of the teacher has a significant impact on motivating students in the learning process (Saputro & Suci, 2023). Teachers are not only presenters of material but also facilitators, motivators, and examples who inspire students to continue learning and developing (Gómez-Trigueros et al., 2024; Fabriz et al., 2021). First of all, teachers play an important role in creating a supportive and positive learning environment. By creating a comfortable and encouraging atmosphere, teachers can help students feel safe to ask questions, experiment, and take risks in learning. This can increase students' self-confidence in facing difficult subject matter. The teacher's role also includes the use of interesting and varied teaching strategies, so that learning material becomes more interesting and relevant for students (Keiler, 2018). Teachers who are creative in teaching can capture students' interest and attention and arouse their curiosity to deepen the material being taught.

Based on the results of monitoring and evaluation conducted on class VI students, researchers found that the majority of students were more likely to use gadgets for playing games and watching videos than for learning activities. The time spent studying is also not very intensive, often only when there are assignments or before semester exams. Some students admit that they do not carry out special study activities when facing exams or tests. These findings highlight the importance of awareness for educators, parents, and students themselves about the responsible use of gadgets. Efforts such as setting limits on screen time, prioritizing schoolwork, understanding the health impacts, and balancing physical, social, and creative activities outside of technology are crucial. Education that is balanced between the use of gadgets and conventional learning experiences is expected to support student motivation and produce positive learning achievements (Zen et al., 2022; Kamalov et al., 2023).

However, it is important to remember that the use of gadgets in education can have a good or bad impact, depending on the way and context of use. Therefore, further research needs to be carried out to investigate the relationship between gadget use, teacher creativity in motivating students, and their learning outcomes. The research title "The Influence of Gadget Use and Teacher Creativity Through Motivation on Learning Outcomes in Class VI Students of SD Negeri 10 Bebesen" is proposed to deepen understanding of these factors and provide guidance for educational practitioners in optimizing the use of technology to support effective and positive learning for the student.

## Method

This research uses quantitative methods. Quantitative methods are research approaches that focus on collecting data in the form of numbers or variables that can be measured numerically (Pilcher & Cortazzi, 2024). This approach uses statistical analysis techniques to test hypotheses, identify patterns, and generalize findings from a representative sample to the broader population. Quantitative methods provide the advantage of providing data that can be measured objectively and is repeatable, thereby allowing researchers to make stronger generalizations. In an educational context, the use of quantitative methods can help in identifying relationships between variables such as gadget use, learning motivation, and student academic outcomes, providing valuable insights for the development of more effective educational policies and teaching practices.

*Place and Time of Research*

The research will be conducted at SD 10 Bebesen, Takengon, Central Aceh. Based on the researchers' teaching experience, students' current learning motivation shows a significant decline, which may be related to the use of gadgets whose benefits have not been maximized. Apart from that, student participation in class discussion activities also appears to be minimal, with only a few students actively expressing opinions. Data collection is planned to be carried out in December 2023, and research will begin in February 2024. Research activities will begin with a preliminary study on Monday, February 26, 2024. Instrument testing and data collection will be carried out from February to March, while data processing is planned will be carried out in April 2024.

*Population*

In this study, the research population was all class VI students at SD Negeri 10 Bebesen, Takengon, Central Aceh, which were divided into two classes, namely class VI A with 27 students and class VI B with 25 students. So, the total population is 52 students.

*Sample*

Based on this research, because the population is not greater than 100 respondents, the author took 100% of the existing population, namely 52 respondents. Thus, the use of the entire population without having to draw a research sample as a unit of observation is called a census technique. The sampling technique uses probability sampling. Probability sampling is a sampling technique that provides an equal opportunity for each member of the population to be selected as a member of the sample.

**Table 1.** Table of Number of Class VI Students

Class	Amount (people)
VI A	27
V1 B	25
Total number	52

**Result and Discussion**

*Distribution of Respondents Based on Gadget Use*

Based on the results of the research that has been carried out, the researchers can explain that there were 33 students, or 63.50% who answered in favor of using gadgets in learning, and 18 students or 34.60% answered neutrally using gadgets in learning, then 1 student or 1.90 % answered that they strongly agree with the use of gadgets in learning at SDN 10 Bebesen.

Based on the results of the research questionnaire, it can be concluded that the use of gadgets by students can help and simplify the learning process at SDN 10

Bebesen, this can be seen from student responses, such as using gadgets to search for learning materials, search for new information about lessons and increase knowledge in the field of technology.

**Table 2.** Results of Gadget Use

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	18	34.60	34.60	34.60
S	33	63.50	63.50	98.10
SS	1	1.90	1.90	100
Total	52	100	100	

Source: Primary Data 2024, processed with SPSS version 22

*Distribution of Respondents Based on Teacher Creativity Variables*

Based on the results of research conducted on 52 students at SDN 10 Bebesen, it was found that 46 students or 88.50% answered agree, 5 students or 9.6% answered neutral, and 1 student or 1.9% answered strongly agree regarding teacher creativity. At SDN 10 Bebesen. The results of the researchers' findings show that teacher creativity in learning at SDN 10 Bebesen is classified as good, this is proven by the existence of creativity in the use of learning media so that the teaching and learning process will become more lively, and in learning teachers use teaching aids that are around them related to the material. That is studied, and the material taught is easier for students to understand, such as providing explanations using examples and illustrations with something that students can encounter in everyday life.

**Table 3.** Teacher Creativity Results (Source: Primary Data 2024, processed with SPSS version 22)

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	5	9.60	9.60	9.60
S	46	88.50	88.50	98.10
SS	1	1.90	1.90	100.00
Total	52	100	100.00	

*Respondent Characteristics Based on Motivational Variables*

Table 4 shows the results of the motivation variable, it is known that 41 students or 78.80% answered agree, 10 students or 19.20% answered neutral and 1 student or 1.90% answered strongly agree about the existence of motivation in learning in SDN 10 Bebesen. Based on the results of the questionnaire presented in the frequency distribution table above, it can be concluded that student motivation in learning at SDN 10 Bebesen is classified as good, this is proven by the average student answers by agreeing that there is motivation in learning and this is proven by the many students who are enthusiastic in participating. Lessons, as well as students who get good

grades, students will be motivated to study harder, and teacher creativity can increase student motivation, such as giving appreciation even though the results of the assignments carried out are not optimal.

**Table 4.** Motivation Results (Source: Primary Data 2024, processed with SPSS version 22)

	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	10	19.20	19.20	19.20
S	41	78.80	78.80	98.10
SS	1	1.90	1.90	100.00
Total	52	100.0	100.00	

*Characteristics of Respondents Based on Learning Outcome Variables*

Based on the results of research conducted on class VI students at SDN 10 Bebesen regarding learning outcomes, it is known that 48 students or 92.30% had an average learning outcome score between 80-90 or B (good), and 3 students, or 5.80% had an average learning outcome score between 91-100 or predicate A (very good), then 1 student or 1.90% had an average learning outcome score between 80-90 or predicate C (fair). These findings explain that the learning outcomes of class VI students at SDN 10 Bebesen are quite good, this is

proven by 48 students getting the title B (good) out of the total number of class VI students at SDN 10 Bebesen. The learning outcomes of class VI students at SDN 10 Bebesen cannot be separated from the teacher's support and guidance.

**Table 5.** Distribution of Learning Results (Source: Primary Data 2024, processed with SPSS version 22)

Range	Predicate	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	75 - 79	C	1	1.90	1.90
	80 - 90	B	48	92.30	92.30
	91 - 100	A	3	5.80	5.80
	Total		52	100.0	100.0

*Normality test*

The normality test aims to determine the distribution of data in the variables used in the research. Normality testing in this research was carried out using the One-Sample Kolmogorov Smirnov Test by looking at the significance level, namely 0.05. The conditions are: if the probability asymp. Sig is > 0.05, then the data has a normal distribution. And conversely, if the probability asymp.sig <0.05, then the data has a non-normal distribution. To see the results of the normality test, you can see the Table 6.

**Table 6.** Normality Test Results (Source: SPSS Version 22 Processed Results)

		One-Sample Kolmogorov-Smirnov Test	
		Unstandardized Residual	
N			52
Normal Parameters, b	Mean		.0000000
	Std. Deviation		8.23
Most Extreme Differences	Absolute		.125
	Positive		.074
	Negative		-.125
Test Statistic			.625
Asymp. Sig. (2-tailed)			.140c
a. Test distribution is Normal.			
b. Calculated from data.			
c. Lilliefors Significance Correction.			

Based on the normality test results in Table 6 above using the One-Sample Kolmogorov Smirnov Test model, it is known that the Symp. sig value is .140 > 0.05, so it is decided that the residual value has a normal data distribution or Ho is accepted and Ha is rejected.

*Multicollinearity Test*

A multicollinearity test is needed to find out whether there are independent variables that are similar to other independent variables in one model. Apart from that, the detection of multicollinearity also aims to avoid bias in the decision-making process regarding the influence of the partial test of each independent variable on the dependent variable. Detection of

multicollinearity in a model can be seen if the Variance Inflation Factor (VIF) value is no more than 10 and the Tolerance value is more than 0.1, then the model can be said to be free from multicollinearity. The results of the multicollinearity test can be seen in Table 7.

Based on the results of the Multicollinearity test in Table 7 using the Variance Inflation Factor (VIF) model, it can be concluded that the data in this study is free from symptoms of multicollinearity, this is supported by the Variance Inflation Factor (VIF) value for each variable of no more than 10 and the Tolerance value more than 0.1.

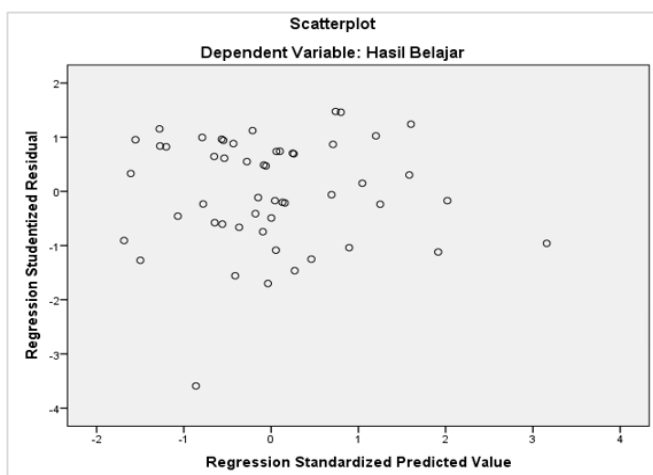
**Table 7.** Multicollinearity Test Results (Source: SPSS Version 22 Processed Results)

Model	Coefficients a	
	Collinearity Statistics	Collinearity Statistics
1	Tolerance	Tolerance
	.135	.135
	.215	.215
	.172	.172

a. Dependent Variable: Learning Outcomes

*Heteroscedasticity Test*

The Heteroscedasticity Test is carried out to determine whether the regression model used contains residual variance that is heteroscedastic. In this case, the author uses analysis with a heteroscedasticity graph, the results (with the SPSS program) are as follows:



**Figure 1.** Heteroscedasticity test output (Source: SPSS version 22 processed results)

Based on Figure 1, the researcher can explain that the regression residual values are spread both above and below zero in the scatter plot image above, so the residual variance values escape the heteroscedasticity problem.

*The Effect of Gadget Use on Motivation*

Based on the analysis of the results of the Model 1 t-test, the t-count value for the Gadget Use variable (X1) was 5.79 and the t-table was 1.67 with a significance level of 0.00 below the significance level limit of 0.05. So, t-count > t-table (5.79 > 1.67) means that the use of gadgets has a significant and influential effect on motivation.

*The Influence of Teacher Creativity on Motivation*

Based on the analysis of the results of the Model 1 t-test, the t-calculated value for the Teacher Creativity variable (X2) was 3.70 and the t-table was 1.67 with a significance level of 0.04 below the significance level limit of 0.05. So, t-count > t-table (3.70 > 1.67) means that

teacher creativity has a significant and influential effect on motivation.

*The Influence of Motivation on Learning Outcomes*

Based on the analysis of the results of the Model 2 t-test, the t-calculated value for the Motivation variable (Z) was 1.79 and the t-table was 1.67 with a significance level of 0.032 below the significance level limit of 0.05. So, t-count > t-table (1.79 > 1.67) means that motivation has a significant and influential effect on learning outcomes.

*Model 2 F Test Results*

This test aims to show the effect that all independent or independent variables included in the model have a joint influence on the dependent variable. The following are the results of the F-test analysis shown in Table 8.

**Table 8.** Model 2 F Test Results (Source: Processed SPSS Version 22 results from 2024 field research data)

Model	Sum of Squares	Sum of Squares	df	Mean Square	F
1	Regression	838.29	3	160.09	31.45
	Residual	532.69	48	11.09	
	Total	580.98	51		
	Total				F

a. Dependent Variable: Learning Outcomes

b. Predictors: (Constant), Motivation, Teacher Creativity, Gadget Use

Based on Table 8, the calculated f-value for model 2 is 31.45, while the f-table at the 5% or 0.05 significance level is 2.80. This shows that f-count > f-table (31.45 > 2.80) with a significance level of 0.000. This means that the variables Gadget Use (X1), Teacher Creativity (X2), and Motivation (Z) have a joint (simultaneous) effect on the Learning Outcome variable (Y). Results of the Coefficient of Determination (R<sup>2</sup>) Model 2. This test is intended to determine the magnitude of the influence of all existing independent variables and the magnitude of the influence caused by other variables that are not explained. To determine the magnitude of the influence of the variables Gadget Use (X1), Teacher Creativity (X2), and Motivation (Z) on the Learning Outcome variable (Y), the results of the analysis can be seen in table 9.

Based on the analysis results, the Correlation Coefficient (R) value was obtained: 0.87, which shows that the degree of relationship (correlation) between the independent variable and the dependent variable is 87.80%. This means that the Gadget Use variable (X1), the Teacher Creativity variable (X2), and the Motivation variable (Z) have a very strong relationship with the Learning Outcomes variable (Y). Furthermore, the

coefficient of determination (R<sup>2</sup>) is 0.78, meaning that 78.30% of the changes in the dependent variables X1, X2, and Z are influenced by motivation as a variable (Z),

while the remaining 21.70% is explained by variables outside this research.

**Table 9.** Model 2 Determination Coefficient Test Results (Source: Processed SPSS Version 22 results from 2024 field research data)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.878 <sup>a</sup>	.783	.780	2.33133	1.241

a. Predictors: (Constant), Motivation, Teacher Creativity, Gadget Use

b. Dependent Variable: Learning Outcomes

*Discussion*

*The Effect of Gadget Use on Motivation*

From the results of testing the first hypothesis, it was found that the gadget use variable had a significant effect on motivation. This is proven by the calculated t value of the gadget use variable of (5.79) which is greater than the t table (1.67) with a significance value of (0.000) which is smaller than the significance limit (0.05). Because the t-count is greater than the t-table, H<sub>a</sub> is accepted and H<sub>0</sub> is rejected, meaning that there is a significant influence between gadget use and motivation. The coefficient value of the gadget use variable is 0.71 with a significant value of 0.000. This means that increasing the use of gadgets will lead to increased motivation (Madarcos et al., 2024). This means that every time there is an increase in gadget use by 1%, it will be followed by an increase in the motivation of class VI students at SDN 10 Bebesen by 71.80%.

The results of this research are in line with research conducted by Rosanna (2023), regarding the effect of using gadgets on the learning motivation of class V students at MI Darul Hikmah Full Day School, Cirebon City. A significance value of 0.000 was obtained, which means the significance value is smaller than 0.05 (0.000). < 0.05) means that there is an influence between gadget use and student learning motivation. Based on the research that has been carried out, the researcher can conclude that the use of gadgets in class VI students at SDN 10 Bebesen has complex and varied impacts, such as the ease of accessing information, by using gadgets, class VI students at SDN 10 Bebesen can easily access information and learning resources that can increase student interest in learning new material, this will increase student motivation because learning becomes more interesting and relevant. Furthermore, gadgets can also be used to introduce variations in learning methods, such as interactive learning applications or educational videos (Vagg et al., 2020).

This can help maintain students' interest and increase their motivation to learn. The use of Gadgets can help and simplify the learning process at SDN 10 Bebesen, this is known from the results of processing research questionnaires, researchers can explain that there were 33 students, or 63.50% who answered

agreeing to the use of Gadgets in learning, and 18 students or 34.60% answered neutrally about the use of gadgets in learning, then 1 student or 1.90% answered that they strongly agreed to the use of gadgets in learning at SDN 10 Bebesen. Based on the results of the research questionnaire, it can be concluded that the use of gadgets by students can help and simplify the learning process at SDN 10 Bebesen, this can be seen from student responses, such as they use gadgets to search for learning materials, search for new information about lessons and increase knowledge in the field of technology (Ratnasari & Haryanto, 2019). The results of this research are supported by Haleem et al. (2022), who stated that the use of gadgets by students can significantly increase their access to additional learning resources and information relevant to the subject matter.

The role of teachers at VI SDN 10 Bebesen and parents of students at home as supervision and control is also very necessary regarding the use of gadgets by students. This aims to reduce negative impacts. Educators and parents need to ensure that the time spent by class VI students at SDN 10 Bebesen when using gadgets provides added value to their education and does not interfere with their learning motivation. The role of parents as the main supervisor is needed so that the use of gadgets by students does not cause social ablation, such as students spending their time just playing games or using social media which can divert attention from their studies, which in turn can reduce students' motivation to focus on tasks school work (Morse et al., 2002).

*The Influence of Teacher Creativity on Motivation*

From the results of testing the second hypothesis, it was found that teacher creativity had a significant influence on the learning motivation of class VI students at SD Negeri 10 Bebesen. The calculated t value for teacher creativity (3.70) exceeds the t table value (1.67) with a significance level (0.004) smaller than the significance limit (0.05), so the alternative hypothesis is accepted while the null hypothesis is rejected. The coefficient of the teacher creativity variable is 0.412, indicating that increasing teacher creativity can increase student learning motivation. This finding is in line with

research by Atma et al. (2021), which also shows a positive relationship between teacher creativity and student learning motivation in elementary schools. The results of a survey of students at SDN 10 Bebesen showed that the majority of students responded positively to teacher creativity, indicating that creative approaches to learning had increased their interest and motivation to learn.

Teachers at SDN 10 Bebesen use interesting and relevant teaching methods, such as interactive learning media and outdoor activities that connect lesson concepts with students' daily lives. This approach not only makes learning more enjoyable but also triggers student motivation to study more actively and effectively. Overall, teacher creativity at SDN 10 Bebesen has a significant role in increasing student learning motivation. A creative approach to teaching not only facilitates a better understanding of concepts but also creates a supportive learning environment for students (Könings et al., 2021; Henriksen et al., 2021; Fan & Cai, 2022). This shows that the integration of creativity in education can contribute positively to student learning outcomes, along with the development of modern learning methods that utilize technology and students' interests.

#### *The Effect of Using Gadgets on Learning Outcomes*

From the results of testing the third hypothesis, it was found that the gadget use variable had a significant effect on learning outcomes for class VI students at SD Negeri 10 Bebesen. This is evident from the calculated  $t$  value of the gadget use variable of (1.95) which is greater than the  $t$  table (1.67) with a significance value of (0.01) which is smaller than the significant limit (0.05). Because the  $t$ -count is greater than the  $t$ -table,  $H_a$  is accepted and  $H_o$  is rejected, meaning that there is a significant influence between the use of gadgets on the learning outcomes of class VI students at SD Negeri 10 Bebesen. The coefficient value of the gadget use variable is 0.73 with a significant value of 0.01. This means that increasing the use of gadgets will lead to increased learning outcomes. This means that every time there is an increase in gadget use by 1%, it will be followed by an increase in the learning outcomes of class VI students at SDN 10 Bebesen by 73.40%.

The results of this research are in line with research conducted by Irawahyuni et al. (2021) Concerning the Effect of Using Gadgets on Student Learning Outcomes in Class III Indonesian Language Subjects in Medan Elementary Schools. The results of his research show that student learning outcomes are influenced by the use of technology (Naik et al., 2020). Furthermore, from the results of the research that has been carried out, the researchers can explain that there were 33 students, or 63.50% who answered that they agreed to use gadgets in

learning, and 18 students or 34.60% answered neutrally about using gadgets in learning, then 1 student or 1.90% answered that they strongly agree with the use of gadgets in learning at SDN 10 Bebesen. Based on the results of the research questionnaire, it can be concluded that the use of gadgets can help and simplify the learning process at SDN 10 Bebesen.

Based on the research that has been carried out, the researchers can conclude that the use of gadgets has a complex impact on the learning outcomes of class VI students at SDN 10 Bebesen. Therefore, it is important to manage students' use of gadgets wisely, maximizing their benefits in education without ignoring the potential risks involved. The positive impact arising from the use of gadgets on class VI students at SDN 10 Bebesen is that it can help students access interactive learning programs that are more interesting facilitate understanding of difficult concepts, and make it easier for students to access various information and learning resources, which can help increase students' understanding of the subject matter (Zamiri & Esmaili, 2024; Darling-Hammond et al., 2020). Meanwhile, the negative impact of using gadgets on class VI students at SDN 10 Bebesen is that excessive use of gadgets can disrupt students' concentration and reduce focus on learning in class. Long-term use of gadgets can hurt students' physical and mental health, such as eye problems and addiction (Ariyanti et al., 2022). Technology, dependence on technology can also reduce students' ability to learn in conventional ways, such as handwriting or reading printed books, and the use of gadgets in the learning process can create gaps, because not all students have the same access to technology, so the use of gadgets can increase gaps in learning outcomes between students (Schindler et al., 2017). The role of teachers and parents is very important in supervising and guiding the use of gadgets for class VI students at SDN 10 Bebesen to ensure that the technology provides significant added value to their learning outcomes.

#### *The Influence of Teacher Creativity on Learning Outcomes*

From the results of testing the fourth hypothesis, it was found that teacher creativity had a significant influence on the learning outcomes of class VI students at SD Negeri 10 Bebesen. The calculated  $t$  value for teacher creativity (1.82) exceeds the  $t$  table value (1.67) with a significance level (0.011) which is smaller than the significance limit (0.05), so the alternative hypothesis is accepted while the null hypothesis is rejected. The coefficient of the teacher creativity variable is 0.483, indicating that increasing teacher creativity can improve student learning outcomes. The results of this research are consistent with the findings of Zhang et al. (2020), who found that teacher creativity has a positive effect on

student learning outcomes in elementary schools. In addition, a survey of students at SDN 10 Bebesen showed that the majority of students agreed that teacher creativity in learning had a positive impact, increasing their interest and learning outcomes. Teacher creativity not only improves the quality of learning but also has an overall positive impact on student development, helping them understand difficult concepts with a more interesting and relevant approach (Scott-Barrett et al., 2023; Ismayilova et al., 2023).

#### *The Influence of Motivation on Learning Outcomes*

From the results of hypothesis testing, it was found that motivation has a significant influence on the learning outcomes of class VI students at SD Negeri 10 Bebesen. The calculated motivation t value (1.79) exceeds the t table value (1.67) with a significance level (0.03) which is smaller than the significance limit (0.05), so the alternative hypothesis is accepted while the null hypothesis is rejected. The motivation variable coefficient of 0.264 indicates that increasing motivation can improve learning outcomes. The results of this research are consistent with the findings of Rahmi et al. (2021), which show that there is a positive relationship between learning motivation and student learning outcomes. From the survey conducted, the majority of students agreed with the importance of motivation in learning, which reflects the good level of motivation at SDN 10 Bebesen. Motivation provided by teachers also plays an important role in forming students' independent attitudes toward learning and increasing their active participation in the learning process.

#### *The Influence of Gadget Use and Teacher Creativity on Learning Outcomes*

Testing the sixth hypothesis shows that the variables of gadget use and teacher creativity influence simultaneously (simultaneously) the learning outcomes of class VI students at SDN 10 Bebesen. This is proven by the results of simultaneous testing (f test), which results in an f-count value of 31.45, while the f-table at a significance level of 5% or 0.05 is 2.80. This shows that f-count > f-table (31.45 > 2.80) with a significance level of 0.000. This means that the use of gadgets and teacher creativity have a simultaneous influence on the learning outcomes of class VI students at SDN 10 Bebesen.

### **Conclusion**

Based on the results of the analysis of the influence of gadget use and teacher creativity through motivation on learning outcomes for Class VI students at SD Negeri 10 Bebesen, it can be concluded that these two factors play an important role in improving student learning outcomes. First, the use of gadgets has been proven to

have a positive and significant influence through motivation, which leads to increased student learning outcomes. It was found that by increasing the use of gadgets, the learning outcomes of Class VI students at SD Negeri 10 Bebesen could increase substantially. Second, teacher creativity also makes a significant contribution to increasing student motivation and learning outcomes. With an increase in teacher creativity, student learning outcomes also experience a significant increase. Furthermore, simultaneously, both the use of gadgets and teacher creativity jointly influence motivation on student learning outcomes. Path analysis shows that the direct influence of Gadget Use through motivation is more dominant with a contribution of 73.40%, while Teacher Creativity provides a direct contribution of 48.30%. The indirect influence of these two factors also plays a role, although in smaller proportions. The results of this research confirm that optimizing the use of gadgets and teacher creativity can be an effective strategy in improving student learning outcomes, especially at the basic education level such as at SD Negeri 10 Bebesen.

#### **Acknowledgments**

Thanks to all parties who have supported the implementation of this research. I hope this research can be useful.

#### **Author Contributions**

Conceptualization, R. D. L., methodology, M. I.; validation, S. W.; formal analysis, R. D. L.; investigation, M. I.; resources, S. W.; data curation, R. D. L.; writing—original draft preparation, S. W. and M. I.; writing—review and editing, R. D. L.; visualization, S. W. All authors have read and agreed to the published version of the manuscript.

#### **Funding**

This research was independently funded by researchers.

#### **Conflicts of Interest**

The authors declare no conflict of interest.

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