

THE INFLUENCE OF GADGET USE AND PARENTAL ATTENTION ON ACCOUNTING COMPUTER LEARNING OUTCOMES WITH LEARNING MOTIVATION AS A MODERATION VARIABLE IN CLASS XI ACCOUNTING STUDENTS OF EAST JAKARTA NEGERI VOCATIONAL SCHOOL

Muhammad Bachryan Ihsan¹, Ati Sumiati², Mardi³

^{1,2,3}Universitas Negeri Jakarta

Email : bachryanihsan@gmail.com¹, atis.june@gmail.com², mardi@unj.ac.id³

Abstrak

Penelitian ini bertujuan untuk menguji pengaruh penggunaan gadget dan perhatian orang tua terhadap hasil belajar komputer akuntansi siswa kelas XI Akuntansi SMK Negeri di Jakarta Timur serta bagaimana motivasi belajar dapat berlaku sebagai moderator dalam hubungan tersebut. Metode penelitian yang diberlakukan adalah metode survei dengan pendekatan kuantitatif. Populasi terjangkau pada penelitian ini merupakan siswa dan siswi kelas XI Akuntansi dari SMKN 46, SMKN 48, dan SMKN 50 Jakarta. Sampel yang digunakan sebanyak 140 orang dengan menggunakan teknik proportional random sampling. Penelitian ini menggunakan analisis regresi moderasi. Penelitian ini menunjukkan hasil bahwa penggunaan gadget berpengaruh secara negatif dan signifikan terhadap hasil belajar. Sedangkan perhatian orang tua berpengaruh secara positif dan signifikan terhadap hasil belajar. Dalam menggunakan variabel moderasi terlihat motivasi belajar memoderasi secara positif pengaruh penggunaan gadget terhadap hasil belajar. Sedangkan motivasi belajar tidak memoderasi pengaruh antara perhatian orang tua terhadap hasil belajar. Dengan demikian siswa dapat mempertimbangkan penggunaan gadget dan orang tua dapat memberikan perhatian yang lebih kepada siswa agar hasil belajar yang dicapai baik serta siswa dapat meningkatkan motivasi belajar agar tidak kecanduan dalam penggunaan gadget

Kata Kunci: Penggunaan Gadget, Perhatian Orang Tua, Hasil Belajar, Motivasi Belajar.

Abstract

This study aims to examine the influence of gadget use and parental attention on the learning outcomes of accounting computers of grade XI students of Accounting State Vocational School in East Jakarta and how learning motivation can be applied as a moderator in the relationship. The research method applied is a survey method with a quantitative approach. The population in this study were students of class XI Accounting from SMKN 46, SMKN 48, and SMKN 50 Jakarta. The sample used was 140 people using the proportional random sampling technique. This study uses moderation regression analysis. This study shows the results that the use of gadgets has a negative and significant effect on learning outcomes. Meanwhile, parental attention has a positive and significant effect on learning outcomes. In using moderation variables, it can be seen that learning motivation positively moderates the influence of gadget use on learning outcomes. Meanwhile,

learning motivation does not moderate the influence between parental attention and learning outcomes. Thus, students can consider the use of gadgets and parents can pay more attention to students so that the learning outcomes achieved are good and students can increase their motivation to learn so that they are not addicted to the use of gadgets.

Keywords: *Gadget Use, Parental Attention, Learning Outcomes, Learning Motivation*

INTRODUCTION

Education is very important for the progress of a country because it creates a quality generation and supports development. The quality of education improves the standard of living and prepares people to compete in the future. However, Indonesia faces a problem with low quality of education, ranking 67 out of 203 countries in 2023 and also in the 2022 PISA survey. Various efforts have been made to improve the quality of education, but the results are still not satisfactory. Student learning outcomes include cognitive, affective, and psychomotor domains. In vocational high schools majoring in accounting, learning outcomes are measured through exam results. A quality learning process is needed to achieve good results. Based on researchers' observations during the 2023/2024 Teaching Skills Practice, students had difficulty achieving the KKM score in computer accounting. The main cause is a lack of understanding of accounting and technology. Accounting computers combine the two for efficiency.

Name of school	Number of students	Average value	Percentage of students who completed	Percentage of students who don't Complete
SMKN 46 JAKARTA	71	71	32%	68%
SMKN 48 JAKARTA	72	72	33%	67%
SMKN 50	72	71	31%	69%

JAKARTA

Source: Data processed by Researchers 2024

Based on the table above, the percentage of students who complete the End of Semester Assessment (AAS) in the three schools is quite low. SMKN 48 has the highest completion percentage at 33%, while SMKN 50 has the lowest at 31%. Learning outcomes in the three schools are generally still low, and serious efforts are needed to improve the quality of learning, provide guidance, increase motivation, and collaborate with parents. Factors that influence accounting learning outcomes are the need for effective learning media. Today's technology can help students improve learning outcomes with access to educational resources, learning videos, and adaptive software. Technological developments also provide opportunities for students to seek knowledge through gadgets, which must be used wisely. There are teachers who allow the use of gadgets in class, while others do not to maintain student concentration. Often students are more interested in other activities when using gadgets.

Gadget use affects student learning outcomes, both positively and negatively. Research by (Rachman et al., 2020) shows that gadgets can motivate students and facilitate communication. (Aprianti et al., 2022) added that gadgets can increase time efficiency and understanding of material. (Zega & Harefa, 2023) stated that gadgets can also have negative impacts, with (Alhumaid, 2019) mentioning four ways gadgets harm education, such as reducing literacy and disrupting social interaction. In addition to gadgets, parental attention is also important, because lack of attention can hinder children's development. Research shows that good parental attention will improve student learning discipline and learning outcomes. Student learning motivation is also needed to achieve learning goals, such as getting high grades. Research supports that learning motivation affects learning outcomes and can strengthen or weaken those outcomes. This study expands on previous research that examined the influence of gadget use and the role of parents, focusing on grade XI students at East Jakarta State Vocational High Schools and adding learning motivation as a moderating variable.

LITERATURE REVIEW

Learning Outcomes

In the study (Pratama & Ghofur, 2021), attribution Theory is used to explain the causes of behavior, including learning success in school. Learning outcomes reflect student achievement and are measured through evaluation of tests. Learning success is influenced by internal factors, such as health and motivation, as well as external factors, such as the environment and teacher competence. Measuring learning outcomes requires indicators based on Bloom's Taxonomy, with a focus on cognitive learning outcomes. The indicator used in this study is the End of Year Assessment (AAT) score for the Computer Accounting subject.

Use of Gadgets

According to (Oktafia et al., 2021) gadgets are important tools for communication and social interaction in modern life. Through smartphones and tablets, people can send messages, make calls, and share content. Gem et al. (2019) call smartphones important small devices that support communication, information, and entertainment. The use of gadgets has grown, from just a communication tool to various functions. Eka Anggraini (2019) and (Arifin, 2015) found that teenagers use gadgets for many purposes. Children's gadget use is also increasing, but it needs to be limited to maintain direct interaction and physical activity.

Parental Attention

Parents have an important role in shaping the character and personality of children. The family environment influences the child's attitude and behavior. Parental attention in learning is very important for the success of a child's education. Parents need to understand the importance of attention to children. Attention is shown through affection and guidance. Parents must also control the way children learn to support the achievement of good results..

Motivation To Learn

Motivation to learn is very important for education. Students need to be motivated to learn well. Without motivation, students become lazy and passive, which can result in low grades. Therefore, motivation must be instilled by parents, teachers, and friends. Motivation comes from

within the student and external sources. To overcome low motivation, it is important to understand the factors, such as physical and mental health and teacher communication. By knowing these factors, students, parents, and teachers can find solutions to increase motivation to learn. Parents' ideals and attention also affect motivation.

RESEARCH METHODS

Research Design

This research uses a quantitative approach. The quantitative approach is an empirical study by presenting data in the form of numbers. In quantitative research, researchers attempt to process scientific knowledge and combine it rationally and empirically by proposing hypotheses. The research method used is the survey method, where a researcher collects data by distributing questionnaires as a research instrument. Using this survey method can make it easier for researchers to obtain data or information regarding the variables to be studied, which will then be processed with the aim of solving problems as the final goal of the research.

Population and Sample

The population for this study consists of all eleventh-grade accounting students from SMK Negeri 46, 48, and 50 in East Jakarta, totaling 215 students. The sample was determined using a proportionate random sampling technique, and 140 students were selected, which were calculated based on Slovin's formula to ensure a representative sample of the population.

Data Collection

Data were collected using a self-administered questionnaire. The questionnaire was divided into sections based on the variables of interest, namely gadget usage, parental attention, learning motivation, and student learning outcomes. The learning outcomes were measured using the students' final exam scores (End of Semester Assessment, AAS), while the other variables were assessed through Likert-scale questions.

Instrument Development

The instrument used in this study consisted of four key variables that were measured to evaluate factors influencing students' learning outcomes. The first variable is Gadget Usage, which

was assessed based on the frequency and purpose of gadget use, including activities such as entertainment, communication, learning, and shopping. The second variable is Parental Attention, evaluated through three key aspects: guidance, supervision, and the provision of learning facilities for the students. The third variable is Learning Motivation, which was measured using three indicators: the desire to study, persistence in learning, and interest in the subject matter. The final variable is Student Learning Outcomes, assessed through the students' final exam results, reflecting their academic achievements in the subject matter. These four variables were used to analyze how gadget usage, parental attention, and learning motivation affect students' learning outcomes.

Validity and Reliability Testing. The validity of the instrument was tested using Pearson's correlation method, and all items showed significant validity. To ensure reliability, the Cronbach's Alpha method was applied, yielding a reliability coefficient above 0.70, indicating high internal consistency for the questionnaire

Data Analysis

Data analysis was performed using statistical methods, including descriptive statistics to summarize the data, and inferential statistics to test hypotheses. Multiple regression analysis was used to determine the impact of gadget usage, parental attention, and learning motivation on student learning outcomes.

Table 1. Questionnaire Reliability and Validity Results

Variable	Validity Coefficient	Reliability Coefficient (Cronbach's Alpha)
Gadget Usage	0.83	0.75
Parental Attention	0.79	0.78
Learning Motivation	0.85	0.80
Learning Outcomes	0.90	0.82

Source: Data processed by Researchers 2024

RESULTS AND DISCUSSION

Learning Outcome Data

Learning outcomes are secondary data obtained from the results repeat value. In this research, the learning outcomes taken are the results of grades end of even semester assessment. Based on the data that has been obtained, value. The highest score is 97 and the lowest score is 78 with an average score of 87.69, variance of 47.38, and standard deviation of 6.88

Table 4. 1 Descriptive Statistics of Learning Outcome Variables

	N	Range	Minimu m	Maximu m	Mean	Std. Deviation	Varianc e
Learning Outcome	140	19.00	78.00	97.00	87.685	6.88350	47.383
Valid N (listwise)	140						

Source: Data processed by Researchers 2024

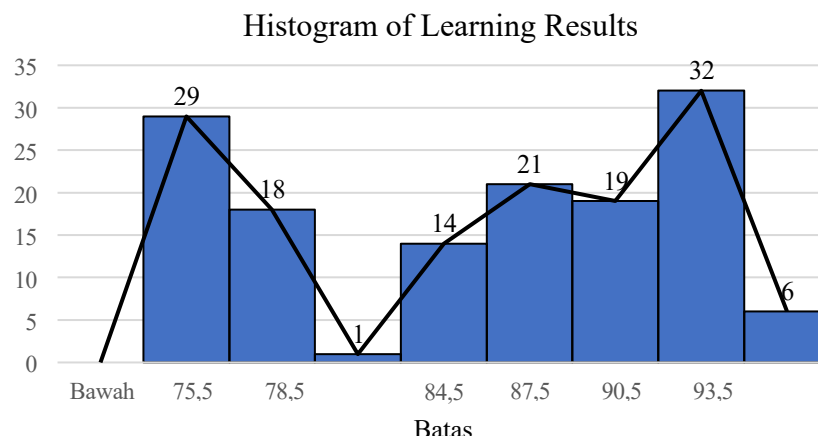
The data obtained produces a frequency distribution of understanding data which can be seen below. Where the number of classes is 10 and the interval length is 2.

Table 4. 2 Frequency Distribution of Learning Outcome Variables

No	Interval Class	Limit		Frekuensi	
		Lower	On	Absolut	Relatif
1	78-79	77,5	79,5	29	21%
2	80-81	79,5	81,5	17	12%
3	82-83	81,5	83,5	1	1%
4	84-85	83,5	85,5	1	1%
5	86-87	85,5	87,5	14	10%
6	88-89	87,5	89,5	8	6%
7	90-91	89,5	91,5	23	16%
8	92-93	91,5	93,5	9	6%
9	94-95	93,5	95,5	5	4%
10	96-97	95,5	97,5	33	24%
Total				140	100%

Source: Data processed by Researchers 2024

Based on the frequency distribution of learning outcomes in the table above, it can be seen that the highest class frequency of learning outcomes is 33 which is located in the 10th (tenth) class interval, namely between 96-97 with a relative frequency of 24%. Meanwhile, the lowest class frequency is 1 which is located in the 3rd (three) and 4th (fourth) class intervals, namely between 82-83 and 84-85 with a relative frequency of 1%. From the learning outcomes distribution table above, it follows that A histogram graph of learning outcomes can be made as follows:



Source: Data processed by Researchers 2024

Based on the data obtained, it can be seen that the learning outcomes in computer accounting subjects are mostly above the average, amounting to 78 students (55.71%), while those below the average are 62 students (44.29%)

Use of Gadgets Data

Table 4. 3 Descriptive Statistics for Gadget Use Variables

	N	Range	Minimu m	Maximu m	Mean	Std. Deviation	Varianc e
Use Of Gadgets	140	53.00	42.00	95.00	69.364	10.79182	116.46
Valid N (listwise)	140						

Source: Data processed by Researchers 2024

Based on the results of the research conducted, the questionnaire was filled out by 140 respondents who were the sample in this study. The highest score obtained was 95, the lowest score was 42, the average score was 69.36, the variance score was 116.46, and the standard deviation score was 10.79. The calculated average score for each indicator of parental attention can be seen in the following table.

Table 4. 4 Calculated Average Scores for Gadget Use Variables

No	Indikator	Item	Skor	N	Total Skor	Mean	Presentase
1.	Kepemilikan gadget	1	576	5	2618	523,6	27%
		2	571				
		3	565				
		4	546				
		5	360				
2.	Mampu mengoperasikan gadget	6	531	5	2539	507,8	26%
		7	558				
		8	541				
		9	538				
		10	371				
3.	Memahami fungsi gadget	11	512	5	2519	503,8	26%
		12	519				
		13	483				
		14	574				
		15	431				
4.	Frekuensi penggunaan gadget	16	524	4	2035	508,8	21%
		17	554				
		18	563				
		19	394				
Total			6671	19	9711	2044,0	100%

Source: Data processed by Researchers 2024

Based on the table above, the gadget ownership indicator has a percentage of 27% with a total score of 2618. The indicator of being able to operate a gadget is 26% with a total score of 2539, understanding gadget functions is 26% with a total score of 2519, and frequency of gadget use is 21% with a total score of 2035.

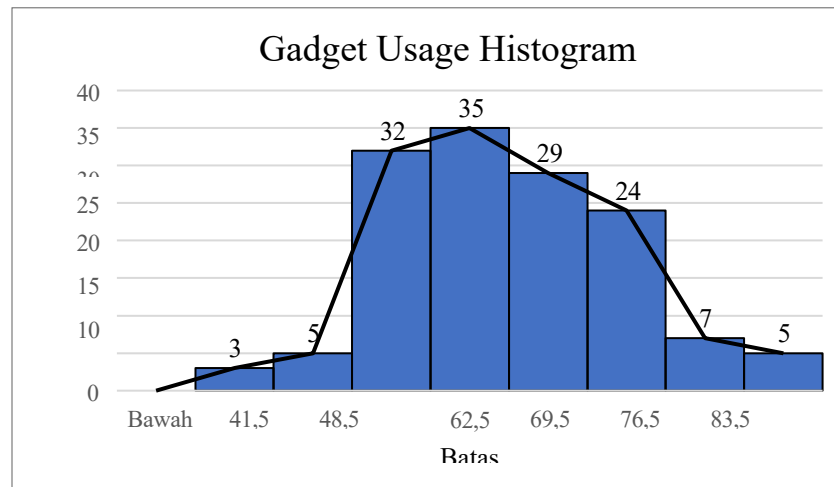
Table 4. 5 Frequency Distribution of Gadget Use Variables

No	Interval Class	Limit		Frekuensi	
		Lower	On	Absolut	Relatif
1	42-48	41,5	48,5	3	2%
2	49-55	48,5	55,5	5	4%
3	56-62	55,5	62,5	32	23%
4	63-69	62,5	69,5	35	25%
5	70-76	69,5	76,5	29	21%
6	77-83	76,5	83,5	24	17%

7	84-90	83,5	90,5	7	5%
8	91-97	90,5	97,5	5	4%
Total				140	100%

Source: Data processed by Researchers 2024

Based on the frequency distribution table above, it can be seen that the highest frequency for the gadget use variable is 35 which is located in the 4th (fourth) class interval, namely between 63-69 with a relative frequency of 25%, while the lowest frequency is 3 which is located in the 1st (one) class interval, namely between 42-48 with a relative frequency of 2%. From the gadget usage frequency distribution table above, a histogram graph of gadget usage can be created as follows.



Source: Data processed by Researchers 2024

Parental Attention Data

Table 4. 6 Descriptive Statistics for Parental Attention Variables

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Parental Attention	140	28.00	42.00	70.00	61.021	7.11718	50.654
Valid N (listwise)	140						

Source: Data processed by Researchers 2024

Based on the results of the research conducted, the questionnaire was filled out by 140 respondents who were the sample in this study. The highest score obtained was 70, the lowest

score was 42, the average score was 61.02, the variance score was 50.65, and the standard deviation score was 7.11. The calculated average score for each indicator of parental attention can be seen in the following table.

Table 4. 7 Calculated Average Scores for Parental Attention Variables

No	Indikator	Item	Skor	N	Total Skor	Mean	Presentase
1.	Membantu mengatasi masalah	1	627	3	1845	615,0	22%
		2	614				
		3	604				
2.	Memberikan penghargaan atau hukuman	4	623	4	2396	599,0	28%
		5	614				
		6	573				
		7	586				
3.	Pengawasan belajar	8	619	5	3048	609,6	36%
		9	618				
		10	619				
		11	609				
		12	583				
4.	Penyediaan fasilitas belajar	13	598	2	1184	592,0	14%
		14	586				
Total			6097	14	8473	2415,6	100%

Source: Data processed by Researchers 2024

Based on the table above, it can be seen that the indicator of helping to overcome problems has a percentage of 22% with a total score of 1845, the indicator of providing rewards or punishments has a percentage of 28% with a total score of 2396, the learning supervision indicator has a percentage of 36% with a total score of 3048, and the indicator of providing learning facilities has a percentage of 14% with a total score of 1184. Data on the frequency distribution of parental attention can be seen in the table below. The number of classes is 8 and the class interval length is 4.

Table 4. 8 Frequency Distribution of Parental Concern

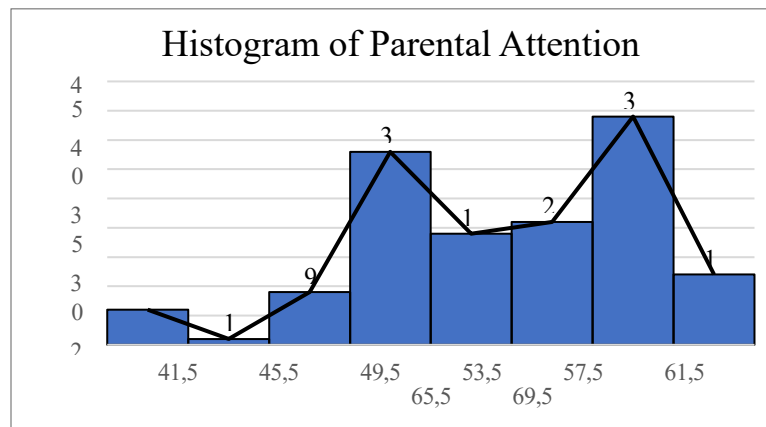
No	Interval Class	Limit		Frekuensi	
		Lower	On	Absolut	Relatif
1	42-45	41,5	45,5	6	4%
2	46-49	45,5	49,5	1	1%
3	50-53	49,5	53,5	9	6%
4	54-57	53,5	57,5	33	24%
5	58-61	57,5	61,5	19	14%
6	62-65	61,5	65,5	21	15%

7	66-69	65,5	69,5	39	28%
8	70-73	69,5	73,5	12	9%
Total				140	100%

Source: Data processed by Researchers 2024

Based on the frequency distribution table above, it can be seen that the highest frequency for the parental attention variable is 39 which is located in the 7th (seventh) class interval, namely between 66-69 with a relative frequency of 28%, while the lowest frequency is 1 which is located in the interval class 2 (two), namely between 46-49 with a relative frequency of 1%. From the frequency distribution table of parental attention above, a histogram graph of parental attention can be created as follows.

Figure 4. 3 Histogram Graph Of Parental Attention



Source: Data Processed By Researchers 2024

Learning Motivation Data

Table 4. 9 Descriptive Statistics for Learning Motivation Variables

	N	Range	Minimu m	Maximu m	Mean	Std. Deviation	Varianc e
Learning Motivation	140	46.00	64.00	110.00	90.407	10.49762	110.200
Valid N (listwise)	140						

Source: Data Processed By Researchers 2024

Based on the results of the research conducted, the questionnaire was filled out by 140 respondents who were the sample in this study. The highest score obtained was 110, the lowest score was 64, the average score was 90.41, the variance score was 110.20, and the standard deviation score was 10.50. The calculated average score for each indicator of the learning motivation variable can be seen in the following table

Table 4. 10 Calculated Average Scores for Learning Motivation Variables

No	Indikator	Item	Skor	N	Total Skor	Mean	Presentase
1	Terdapat hasrat untuk belajar	1	615	3	1797	599,0	14%
		2	585				
		3	597				
		4	616				
2	Terdapat dorongan serta kebutuhan untuk melakukan belajar	5	581	5	2813	562,6	22%
		6	616				
		7	580				
		8	420				
		9	618				
3	Adanya harapan dan keinginan	10	619	5	2786	557,2	22%
		11	612				
		12	599				
		13	338				
		14	599				
4	Ulet dalam menghadapi rasa ulet dalam pembelajaran	15	583	5	2786	557,2	22%
		16	593				
		17	586				
		18	425				
5	Adanya kegiatan menarik dalam kegiatan belajar	19	613	4	2429	607,3	19%
		20	607				
		21	599				
		22	610				
Total			6459	22	12611	2276,0	100%

Source: Data Processed By Researchers 2024

Based on the table above, it can be seen that the indicator of desire to succeed has a percentage of 14% with a total score of 1797, the indicator of encouragement and need for learning actions has a percentage of 22% with a total score of 2813, the indicator of hope and aspirations has a percentage of 22% with a total score of 2786, the tenacity indicator in facing difficulties in learning has a percentage of 22% with a total score of 2786, and the existence of interesting activities in the act of learning has a percentage of 19% with a total score 2429.

Table 4. 11 Frequency Distribution of Learning Motivation Variables

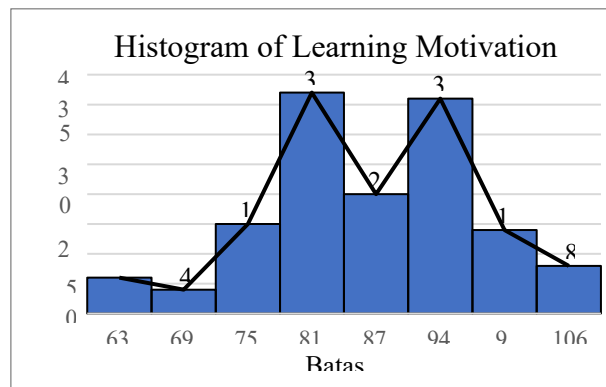
No	Interval Class	Limit		Frekuensi	
		Lower	On	Absolut	Relatif
1	64-69	63,5	69,5	6	4%
2	70-75	69,5	75,5	4	3%
3	76-81	75,5	81,5	15	11%
4	82-87	81,5	87,5	37	26%

5	88-94	87,5	94,5	20	14%
6	95-100	94,5	0,5	36	26%
7	101-106	9,5	6,5	14	10%
8	107-112	106,5	112,5	8	6%
Total				140	100%

Source: Data Processed By Researchers 2024

Based on the frequency distribution table above, it can be seen that the highest frequency for the learning motivation variable is 37 which is located in the 4th (fourth) class interval, namely between 82-87 with a relative frequency of 26%, while the lowest frequency is 4 which is located in the class interval. 2nd (two) is between 70-75 with a relative frequency of 3%. From the frequency distribution table of parental attention above, a histogram graph of learning motivation can be created as follows.

Figure 4. 4 Histogram Graph of Learning Motivation



Source: Data Processed By Researchers 2024

Analysis Results

Normality Test

In the normality test, researchers tested using the Kolmogorov-Smirnov method using IBM SPSS Statistics 26. The criterion that proves that the data is normally distributed is if the significance value is >0.05 .

Table 4. 12 Normality Test Results

One-Sample Kolmogorov-Smirnov Test

N	140
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Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	6.35855759
Most Extreme Differences	Absolute	.069
	Positive	.065
	Negative	-.069
Test Statistic		.069
Asymp. Sig. (2-tailed)		.100 ^c

Unstandardized Residual

Source: Data Processed By Researchers 2024

Referring to the results of the normality test, it can be seen that the significance value is 0.100. then it means that the criteria in the normality test are met, namely $0.100 > 0.05$ so that the data is normally distributed.

Multicollinearity Test

Multicollinearity testing via IBM SPSS Statistics 26 can be seen through the tolerance value and Variance Inflation Factor (VIF). Where if the data owned does not occur multicollinearity, then the tolerance value must be greater than 0.10 or the VIF value is smaller than 10. Meanwhile, if the results show the tolerance value is smaller than 0.10 or a VIF value greater than 10, this indicates that the data has multicollinearity.

Table 4. 13 Multicollinearity Test Results
Coefficients^a

Model		Unstandardized Coefficients		Standardize d Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Toleranc e	VIF
1	(Constant)	87.187	5.048		17.273	.000		
	Penggunaan Gadget	.160	.063	.251	2.547	.012	.648	1.544

Perhatian Orang Tua	.396	.124	.410	3.183	.002	.379	2.638
Motivasi Belajar	-.385	.086	-.586	-4.486	.000	.367	2.723

Source: Data Processed By Researchers 2024

Referring to the results of the multicollinearity test, it can be stated that the gadget use variable has a tolerance value of $0.648 > 0.1$ and a VIF of $1.544 < 10$, so it can be interpreted that multicollinearity does not occur. Then the parental attention variable shows that the tolerance value is $0.379 > 0.1$ and VIF $2.638 < 10$, indicating that there is no multicollinearity. Apart from that, the learning motivation variable shows a tolerance value of $0.367 > 0.1$ and a VIF of $2.723 < 10$, thus showing that the data does not have multicollinearity.

Heteroscedasticity Test

In the heteroscedasticity test, the researcher tested using the Glejser method using IBM SPSS Statistics 26..

Table 4. 14 Heteroscedasticity Test Results

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.892	2.707		2.176	.031
	Penggunaan Gadget	.045	.034	.141	1.333	.185
	Perhatian Orang Tua	-.080	.067	-.165	-1.194	.235
	Motivasi Belajar	.013	.046	.040	.285	.776

Source: Data Processed By Researchers 2024

Through the heteroscedasticity test, it can be seen that the gadget use variable has a significance value of $0.185 > 0.05$, which indicates that heteroscedasticity does not occur. The parental attention variable shows a significance value of $0.235 > 0.05$ so it can be stated that heteroscedasticity does not occur. The learning motivation variable shows a significance value of $0.776 > 0.05$, which means that heteroscedasticity does not occur.

Moderated Regression Analysis Test

In the moderation regression test, researchers carried out testing using IBM SPSS Statistics 26.

Table 4. 15 Moderated Regression Analysis Test Results

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	85.837	34.243		2.507
	Use Of Gadgets	-1.102	.552	-1.728	2.303
	Parental Attention	1.795	.709	1.856	2.530
	Learning Motivation	-.304	.402	-.464	2.756
	Use Of Gadgets * Learning Motivation	.013	.006	2.894	2.303
	Parental Attention * Learning Motivation	-.015	.008	-2.658	1.951

Source: Data Processed By Researchers 2024

From the results of the regression equation, several things can be concluded, including:

- The constant value $a = 85.837$ shows that if all the independent variables have a value of zero, then the learning outcome variable has a value of 85.837.
- The gadget use coefficient of -1.102 shows a negative direction towards the learning outcome variable..
- The parental attention coefficient of 1.795 shows a positive direction towards the learning outcome variable.
- The coefficient value of gadget use with the moderating variable learning motivation (X1Z) is positive at 0.013, meaning that if the interaction between gadget use and learning motivation (X1Z) increases, then learning outcomes will also increase, or vice versa.
- The coefficient value of parental attention with the moderating variable learning motivation (X2Z) shows a negative direction of 0.015, meaning that if the interaction of parental attention with learning motivation (X2Z) increases, then learning outcomes will decrease.

Hypothesis Testing

F Test

In the F test, researchers carry out tests using IBM SPSS Statistics 26. The F test is needed as a feasibility test for the regression model. The criteria required for this test so that the regression

model is suitable for use is obtaining a significance value of less than 0.05. If the significance value is more than 0.05 then the regression model is not suitable for use.

Table 4. 16 F Test Results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1198.664	5	239.733	5.963	.000 ^b
	Residual	5387.508	134	40.205		
	Total	6586.171	139			

Source: Data Processed By Researchers 2024

Referring to the results of the F test, it can be seen that the significance value obtained is $0.000 < 0.05$, which indicates that testing with the regression model is suitable for use.

T Test

In the T test, the researcher carried out a test using IBM SPSS Statistics 26. This test was carried out with the aim of seeing whether or not there was a partial influence between the independent variable and the dependent variable. The conditions required in this test for the hypothesis to be accepted are a significance value smaller than 0.05 or a calculated t value greater than the t table. However, if the significance value is greater than 0.05 or the calculated t is smaller than the t table, then the hypothesis is rejected

Based on the results of the T test, several conclusions were obtained as follows:

- The gadget use variable has a significance value of $0.048 < 0.05$. Then, the calculated t value is $-1.997 < t$ table is equal to $-1,978$. Apart from that, the coefficient value of the gadget use variable is -1.102 so that gadget use has an effect on learning outcomes, so H1 is accepted.
- The parental attention variable has a significance value of $0.013 < 0.05$. Then, the calculated t value is $2,530 > t$ table is $1,978$. Apart from that, the coefficient value of the gadget use variable is 1.795 so that parental attention influences learning outcomes, so H2 is accepted.
- The gadget use variable which is moderated by learning motivation has a significance value of $0.023 < 0.05$. Then, the calculated t value is $2.303 > t$ table is 1.978 . Apart from that, the coefficient value of the gadget use variable which is moderated by learning motivation is

0.013 so that the learning motivation variable moderates gadget use on learning outcomes, so H3 is accepted.

- d) The parental attention variable which is moderated by learning motivation has a significance value of $0.053 > 0.05$. Then, the calculated t value is $-1.951 > t$ table is -1.978 . In addition, the coefficient value of the parental attention variable which is moderated by learning motivation is -0.015 so that the learning motivation variable does not moderate parental attention to learning outcomes, then H4 is rejected.
- a) Coefficient of Determination Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.427 ^a	.182	.151	6.34076

Source: Data Processed By Researchers 2024

Referring to the table, it appears that the value of the coefficient of determination (R square) is 0.182. This means that the contribution of the variables gadget use and parental attention to learning outcomes is moderated by learning motivation of 18.2% and the remainder shows the influence of other variables besides gadget use and parental attention and learning motivation.

Discussion

Based on the research that has been explained, there is a negative influence from the use of gadgets on learning outcomes. The t test shows the calculated t is -1.997 and a significance value of 0.048 , which means there is a significant influence. The higher the student's use of gadgets, the lower their learning outcomes, and vice versa. This is in line with research by Fuji Ayu Hidayatul M (2018) which found that gadgets are not used optimally for learning, but for playing games, communicating and social media. Research by Andrew Lepp et al (2015) also states that there is a significant negative influence with a regression coefficient of -0.164 and significance (p) 0.001 . Likewise, research by Aaron et al (2019) shows an r value of -0.162 . In conclusion, the use of gadgets negatively affects student learning outcomes.

Based on subsequent research, there is a positive influence of parental attention on student learning outcomes. The t test shows a t count of 2.530 and a significance value of 0.013, which means it is smaller than 0.05, indicating a significant effect. The higher the attention of parents, the better the student's learning outcomes, and vice versa. This research is consistent with previous research by Ambarwati (2018), Ananda and Maksum (2021), and Haditama et al (2018), which also found that parental attention had a positive effect. (Haditama et al., 2018) revealed that parental attention can increase students' enthusiasm for learning. (Mahmudi et al., 2020) that children's education is a shared responsibility between parents and teachers.

Referring to further data analysis, it was found that learning motivation moderates the use of gadgets in a positive and significant way on learning outcomes. Motivation to learn can strengthen the influence of gadgets on learning outcomes. If gadget use and learning motivation increase, learning outcomes will also increase. Conversely, decreasing this interaction will reduce learning outcomes. Abdurakhman (2018) stated that gadget addiction causes students to ignore lessons and assignments, making it difficult to control. Learning motivation factors from within students are needed to overcome this problem. Dewanti (2016) also states that gadgets have a positive impact if there is high learning motivation. Research by (Erdiana et al., 2022) shows that the use of gadgets can have a negative impact on learning outcomes. High learning motivation can improve this influence. (Porang, 2023) added that the use of gadgets and study habits together have a significant effect on motivation which influences learning outcomes.

Based on data analysis through hypothesis testing, it was found that learning motivation does not moderate parental attention to learning outcomes. This means that learning motivation does not strengthen or weaken the influence of gadget use on learning outcomes. Elina's research (2023) shows similar results, where parental attention already has a strong influence on student learning outcomes, so that the moderating effect of learning motivation becomes less significant. Parental involvement is the main factor that directly influences student behavior and achievement. Parental attention provides stability, while students' internal learning motivation is not decisive enough. Students who receive less parental attention face more challenges in learning.

CONCLUSION AND RECOMMENDATIONS

Based on the analysis carried out, there are conclusions regarding the influence of gadget use and parental attention on learning outcomes with learning motivation as a moderating variable. The use of gadgets has a negative and significant influence on student learning outcomes; the more gadgets are used, the lower the learning outcomes. On the other hand, parental attention has a positive and significant effect; the greater the attention, the better the learning outcomes. Motivation to learn strengthens the influence of using gadgets, so that the interaction between the two will improve learning outcomes. However, there is no influence of learning motivation on parental attention in influencing learning outcomes.

Based on the conclusions, implications and limitations of the research that have been explained, the researcher provides suggestions for improving the quality of further research. This research only uses four variables: learning outcomes (Y), gadget use (X1), parental attention (X2), and learning motivation. It is recommended to add other variables that can influence learning outcomes. The research was only carried out at three East Jakarta State Vocational Schools, so the research object was still narrow. It is hoped that future researchers can expand the research object. Apart from that, 81.8% of learning outcomes are influenced by other factors. Future researchers are expected to be able to examine other factors that influence learning outcomes with different analysis methods.

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