International Journal of Advanced Educational Research
www.educationjournal.org
ISSN: 2455-6157
Received: 30-05-2021; Accepted: 15-06-2021; Published: 30-06-2021
Volume 6, Issue 3, 2021, Page No. 28-32

The influence of parental attention on science learning outcomes of grade VI SD GMIM VIII Tomohon

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Abstract
The role of parents for children's education is to provide basic education, basic attitudes and skills. Busyness, indifference to children's learning needs or a lack of parental attention in providing tutoring to children at home can cause children to not or be less successful in their learning. Therefore, it is necessary to study the effect of parental attention on student learning outcomes, especially science subjects. The results show that the significant value of the residual normality test was found to be greater than 0.05, which is equal to 0.931. The residual data in this study were normally distributed. The significance value of the X-Y variable homogeneity test is 0.865. This value is greater than 0.05, which means that the Y variable data based on the X variable has the same or homogeneous variant. The significance value for the variable parental attention is 0.885, which is greater than 0.05, so the data on the relationship between parental attention and science learning outcomes is linear. The results of hypothesis testing show that parental attention has a significant effect on science learning outcomes with a contribution of 10.8%.

Keywords: parental attention, student learning outcomes, science

Introduction

Learning outcomes are the acquisition of the student learning process in accordance with the objectives of learning. The expectation from the school and parents of course is that students get maximum or satisfying results in every subject, especially in science subjects. Science is a field that has an important role in the world of education and even science is often used in everyday life.

Science is one of the subjects taught in elementary to high school and university. Science is also a universal science that underlies the development of modern technology, has an important role in various disciplines and advances human thinking.

IPA has special characteristics, namely symptoms or phenomena that occur in the vicinity. Hope both from the school and parents that all children can master all learning material in science subjects well.

All parents expect their children to get the best learning outcomes, this is of course also the hope of all students and the hope of a nation, namely to educate the nation's life. Likewise, the school's expectation is that 100% of students can meet the minimum completeness criteria (KKM) set by the teacher. Parents are one of the determining factors in learning success because the family environment (parents) is the first and foremost educational center for a child. Parents are said to be the first and foremost educators because the education provided by parents is the basis and greatly determines the subsequent development of the child.

The role of parents for children's education is to provide basic education, basic attitudes and skills such as religious education, character, courtesy, aesthetics, compassion, and a sense of security which are the bases for obeying regulations and instilling habits. Busyness, indifference to children's learning needs or a lack of parental attention in providing tutoring to children at home can cause children to not or be less successful in their learning. Therefore, it is necessary to study the effect of parental attention on student learning outcomes, especially science subjects.

Research Methods

The approach used in this research is a quantitative research approach, where the calculation of statistical tests is the basis for the high or low level of a variable, the acceptance of a relationship or influence between the variables studied. This study aims to test the proposed hypothesis by describing and analyzing the relationship between existing variables, namely the effect of parental attention on science learning outcomes. Therefore, this study uses descriptive survey and correlation methods. Descriptive statistics to describe the data from the samples collected to make a generalization, as suggested by Sugiyono (1998: 169-170).

This research was conducted at the SD GMIM VII Tomhon, North Minahasa Regency. The population is only 79 people (less than 100 people), so the researcher took all subjects as samples in data collection, 39 students from class VI A and 40 students from class VIB. This study consisted of 2 variables, the dependent variable, namely learning outcomes (Y) and the independent variable, namely parental attention (X).

The instrument used to obtain data from variable (X) used a questionnaire while the test was used to obtain data from variable Y. The questionnaire was developed with reference to the theory that underlies each variable, then a grid was arranged to be further described in question/statement items. The data collection technique used in this study used a questionnaire to obtain parental attention data (X), while the test was used to obtain student learning outcomes in mathematics (Y).

Two instruments were tested, namely the parental attention instrument (X) and the science subject test (Y). The

instrument being tested has been verified by a team of experts. In this study, trials were conducted on 30 students at SD GMIM VIII Tomohon. The test in question is the validity test, reliability test,

Quantitative data analysis was carried out by computerization, namely with the help of Statistical Product and Service Solution (SPSS) application software. The tests performed are prerequisite tests (normality, homogeneity, and linearity tests) and hypothesis testing using a simple regression formula:

$\hat{Y} = a + bX.$

Result and Discussions

Descriptive Statistics

As many as 79 grade VI students of SD GMIM VIII Tomohon as the unit of analysis were calculated into descriptive statistics. Analysis activities were carried out using the IBM SPSS Version 21 tool.

a. Descriptive Statistics for Parental Attention

The results of the calculation of the frequency distribution of parental attention data can be seen in table 1. Table 1 shows that the items regarding parental attention given to research respondents were 21 valid question items. The score is measured by numerical values from 1 to 5. The highest ideal score is 105 and the lowest ideal score is 21. The calculation uses the IBM SPSS Version 21 tool. Based on the calculation, the collected parental attention data shows that a minimum score of 46 is higher than the score. The lowest ideal and a maximum of 98 which is not far from the highest ideal standard score. The standard deviation is 12.41, the mean (average value) 69.95 shows that the average parent's attention is above the mean (median 69), and the mode (the tendency to appear) is 69, so it can be said that the attention of parents is good.

Table 1: Frequency Distribution of Parental Attention Data

No	Value	Frequency	F relative (%)
1	46 - 52	10	12.65
2	53 -59	11	13.92
3	60 – 66	16	20.25
4	67 – 73	17	21.51
5	74 – 80	12	15.18
6	81 – 87	9	11.39
7	88 – 94	4	5.06
8	95 – 101	1	1.26
Total		79	

b. Descriptive Statistics for Mathematics Learning Outcomes

The results of the calculation of the frequency distribution of science learning outcomes data can be seen in table 2.

Table 2: Data Frequency Distribution of Science Learning Outcomes

No	Value	Frequency	F relative (%)
1	68 - 71	8	10.12
2	72 -75	15	20.25
3	76 – 79	23	18.98
4	80 – 83	12	15.18
5	84 – 87	13	16.45
6	88 – 91	1	1.26
7	92 – 95	3	3.79
8	96 – 100	4	5.06
Total		79	

Table 2 shows that the science learning outcomes are measured using the science test results. Descriptive data for science learning outcomes is a minimum value of 68 and a maximum value of 96 so that the range is found to be 28. The average value of 76.90 is greater than the median value of 75.00, and the standard deviation is 7.130. This shows that the science learning outcomes are good or satisfactory because 100% pass with the passing standard value of students for this subject which is 65.

Testing Requirements Analysis

a. Data Normality Test

The normality test is carried out to ascertain whether the data collected from respondents comes from a normally distributed population or not. One test that is often used to test data normality is the Kolmogorov-Smirnov (K-S) non-parametric test with the SPSS program. Residuals are said to be normally distributed if the K-S probability value is not significant (significance value is greater than 5%) (Ghozali, 2005: 91). With decision making:

If the value of sig> value $\alpha = 0.05$ means accept Ho

If the sig value ≤ the value $\alpha = 0.05$ means reject Ha

Note: Ho: population is normally distributed

Ha: the population is not normally distributed

Based on the research data, it can be explained that the state of the normality test data is in table 3.

Table 3: Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		79
Normal Parameters [a,b]	Mean	.0000000
	Std. Deviation	6.31428330
Most Extreme Differences	Absolute	.061
	Positive	.046
	Negative	-.061
Kolmogorov-Smirnov Z		.542
Asymp. Sig. (2-tailed)		.931

The significant value for the residual normality test was found to be greater than 0.05, namely 0.931. Thus the data residuals in this study are normally distributed. The histogram of learning outcomes can be seen in Figure 1. The normal distribution of data can be seen from the normal plot in Figure 2.

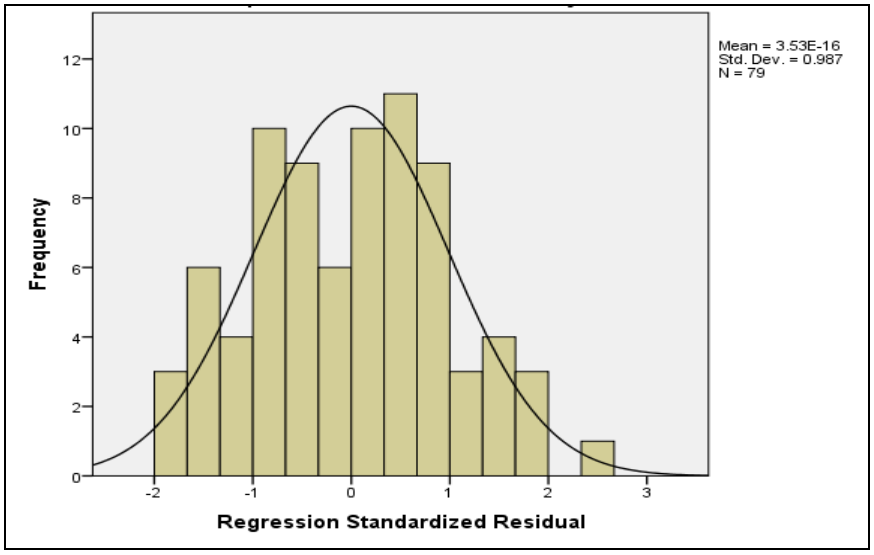

Fig 1: Histogram of Frequency Distribution of Science Learning Outcomes Data

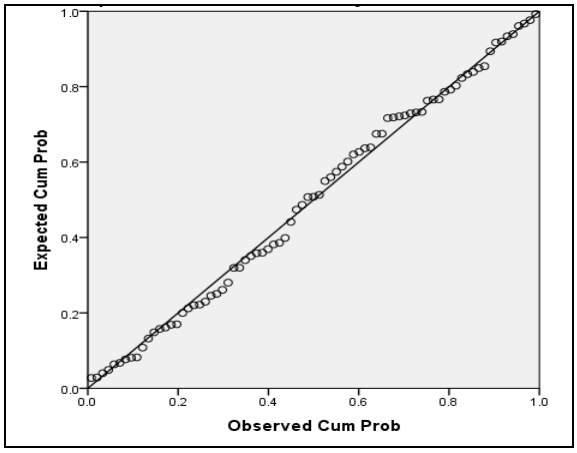

Fig 2: Data Frequency Distribution Plot of Science Learning Outcomes

b. Homogeneity Test

The homogeneity test is used to determine whether the variants of several populations are the same or not. This test is usually performed as a prerequisite for the analysis of the independent sample T test and ANOVA. The assumption underlying the analysis of variance (Anova) is that the variants of several populations are the same. The basis for the decision is if the significance value is more than 0.05, it is said that the variants of two or more variables in the data population group are the same. If the opposite, namely the significance value is less than 0.05, it is said that the variants of two or more variables in the data population group are not the same. To find out which variants of several populations are the same or not, the data is tested using the IBM SPSS version 21 software, which can be seen in table 3.

Table 3: Homogeneity Test Results

	Levene Statistic	df1	df2	Sig.
Parents attention (X)	.373	5	72	.865

From table 3 it is known that the significance value of the X - Y variable homogeneity test is 0.865. This value is greater than 0.05, which means that the Y variable data based on the X variable has the same or homogeneous variant.

c. Linearity Test

Linearity test is carried out to test whether there is a direct relationship between the independent variable (X) and the dependent variable (Y) and to determine whether there is a change in variable X followed by a change in variable Y. This test is carried out by calculating a significant value. If the significant value is ≥0.05, it is stated that the data regression line is linear. If the significant value <0.05, it is stated that the data regression is not linear. To find out the linearity relationship, it was tested using IBM SPSS version 21 software. The linearity test results can be seen in table 4.

Table 4: Linearity Test Results

Variable Relationships	*Sig*	Information
parental attention (X) and science learning outcomes (Y)	0,885	Linear

The results of the calculation show that the significance value for the variable parental attention is 0.885, which is greater than 0.05, so the data on the relationship between parental attention and science learning outcomes is linear.

3. Hypothesis Testing

Hypothesis: The effect of parental attention on student learning outcomes of SD GMIM VIII Tomohon.

Analysis activities were carried out using the IBM SPSS version 21 tool. The results of the analysis can be seen in table 5.

Table 5: Simple Regression Results for the Attention of Parents on Science Learning Outcomes

Source of Constants	*Coefficients (α* =63.702*)*	*R*	R^2	Sig	Information
parental attention	*β=0,188*	0,329	0,108	0,003	Ho was rejected and Ha accepted

Based on table 5 it is known that the simple regression line equation is as follows: the magnitude of the constant (α) = 63,702 and the regression coefficient value is β = 0.188, so that $\hat{Y} = \alpha + \beta X = 63.702 + 0.188X$. Then, the hypothesis is tested and analyzed with the data that has been collected, so that the answer is found. Ho can be accepted if β = 0 and Ho is rejected if β > 0. The calculation results from SPSS show that β (0.188)> 0, then Ha is accepted and Ho is rejected so

that parental attention has a significant effect on mathematics learning outcomes. is (α) = 63,702 and is positive, which means that if X cannot contribute (X = 0) to Y, then the value of $\hat{Y}$ = 63,702. The intersection point of the simple regression line is above from point 0, precisely at point 63,702. The coefficient value for parental attention is positive at 0.188, which means that if the value of parental attention increases by 1 point, then the value of student learning outcomes will also increase by 1 point by 0.188.

This coefficient is used to determine the variation that occurs in the dependent variable (Y) which can be explained in the independent variable (X), as well as to find out the amount of deviation from variable Y. In table 5, it appears R2 = 0.108, which means that parental attention contributes 10.8 % of student learning outcomes. The histogram for the hypothesis of parental attention to science learning outcomes can be seen in Figure 3.

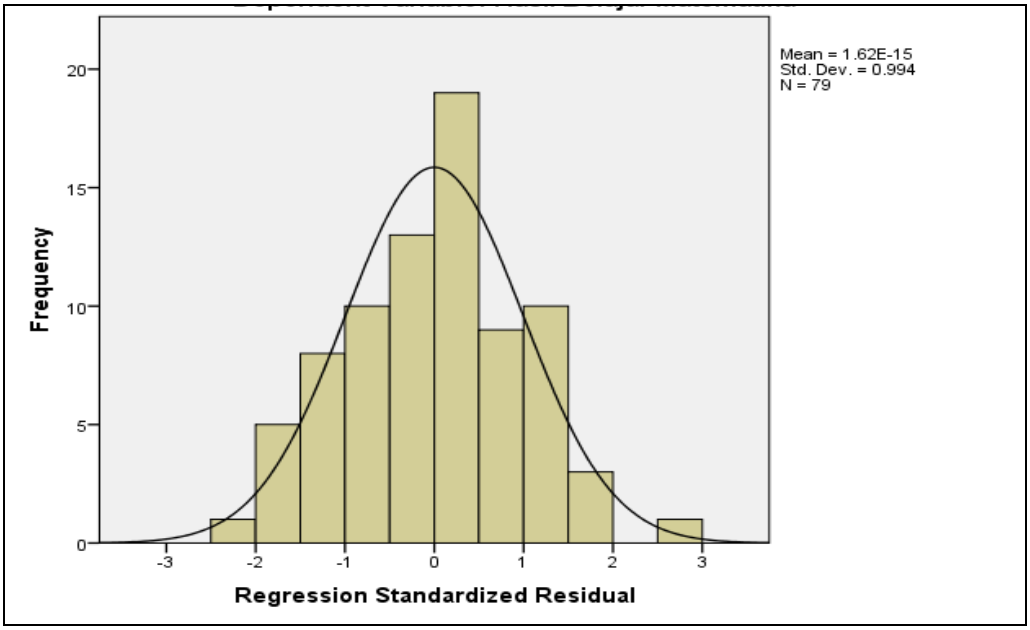

Fig 3: Histogram of the Effect of Parental Attention on Learning Outcomes

The results of this study are supported by research that has been made by Olatoye and Agbatogun (2009) that parents influence children's learning outcomes in schools, especially in science subjects. This finding is also in line with the results of a study conducted by Anathe R. Kimaro which revealed a positive and significant relationship between parental involvement in school and their children's academic achievement. In fact, parents are involved in providing school supplies/necessities, providing tutoring at home, and building good relationships with children, which will have a positive impact on children's achievement in school.

Parental attention has an effect of 10.8% on student science learning outcomes, meaning that 80.2% is still influenced by other factors. This is in line with the opinion of Slameto (2010: 54) that student learning outcomes are not only influenced by parental attention, but there are many other factors that can influence student learning outcomes in the form of factors that come from within students such as talents, interests and intelligence, as well as other factors such as teachers, material and society.

Conclusion

Parental attention has a significant effect on science learning outcomes. This is evidenced by a contribution of 10.8%. The implication is that parents must pay sufficient attention to their children, especially in providing guidance and supervision in terms of learning because parental attention has a significant effect in improving children's learning outcomes, especially learning outcomes in science subjects.

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