

# The Influence of Organizational Activities, Learning Motivation, and Family Environment on the Learning Achievement of Vocational College Students in Batam City

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## ABSTRACT

### Abstract

Student activeness in organizations aims to develop and apply the experience gained in life. The individual's internal strength is to provide enthusiasm for learning activities. The family environment includes all interactions, emotional support, and dynamics between family members that affect child development. This study uses quantitative analysis methods. This study aimed to determine the effect of organizational activities, learning motivation, and family environment on the learning achievement of vocational college students in Batam City. From the test results obtained a significance level of  $0.000 < 0.05$ , then  $H_4$  is accepted, it can be concluded that simultaneously the variables of organizational activities (X1), learning motivation (X2), and family environment (X3) have a simultaneous effect on the learning achievement of vocational college students in Batam City.

### Keywords:

organizational, motivation, environment, learning

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## Introduction

Two major functions of higher education are the dissemination of knowledge and the development of people who advance the country. Azura (2002: 215) claims that a high-quality education helps Indonesia become more competitive internationally and more stable during times of transition. In addition, education seeks to develop obedient, contributing members of society and the nation (Wahyuni, 1997: 2). Law No. 20/2003 states that the education system must adapt to technological advancements to generate competent graduates with both technical and non-technical abilities and remain relevant in the age of globalization. According to Rosyid (2019: 9), learning achievement, such as GPA, represents student success and is a crucial measure in higher education.

The elements that affect a student's ability to learn include both environmental (like living circumstances, family environment, and supportive facilities) and internal (like motivation, interest, talent, and learning methods) factors (Abu Ahmadi and Widodo Supriyono, 1991: 131). The research focuses on vocational colleges in Batam City, specifically those in the departments of Business Management, Informatics Engineering, Electrical Engineering, and Mechanical Engineering. The researcher polled fifteen students to determine what factors affect the learning achievement of vocational college students in Batam City.

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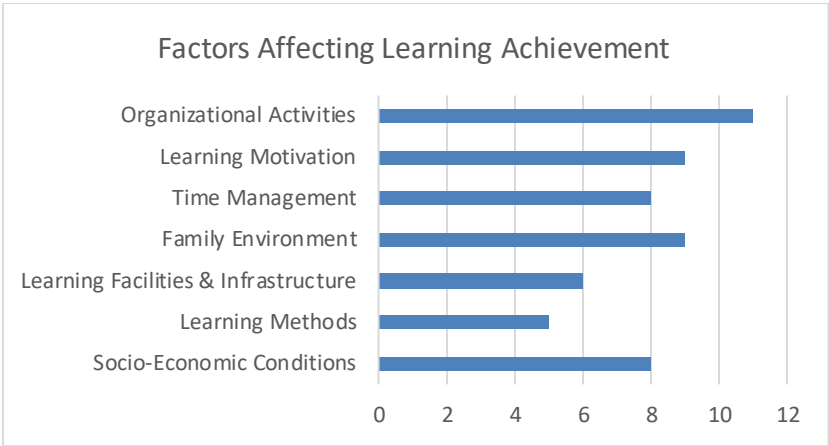


Figure 1. Factors Affecting Learning Achievement

The three most extensive data sets are displayed above. These represent the responses of 15 respondents who indicated that learning motivation, family environment, and organizational activities significantly affect students' academic progress. Positive findings from Siska Sinta Pratiwi's (2016) research were also reported, namely that students involved in groups achieve more in their academic lives than students who are not. While attending classes helps students prepare for their academic careers, they need help balancing their time between groups and lectures. Strong learning motivation is necessary to keep up this commitment.

According to Nia Rosita's research (2023), moral support and encouragement from the family, along with educational principles established from an early age, positively impact students' learning achievement. The researcher is interested in researching vocational college students in Batam City under "The Influence of Organizational Activity, Learning Motivation, and Family Environment on the Learning Achievement of vocational college students in Batam City" based on respondent data and prior research.

**Method**

Quantitative analysis techniques are used in this study to ascertain each variable's impact. Once the data has been collected, the SPSS (Statistics Products and Services Solutions) software will be used to test the hypothesis. Vocational college students in Batam City make up the study's population; 92 respondents who were vocational college students in Batam City make up the study's sample. In this study, Google Forms were used to distribute questionnaires as the method of data collecting. The framework of this research:

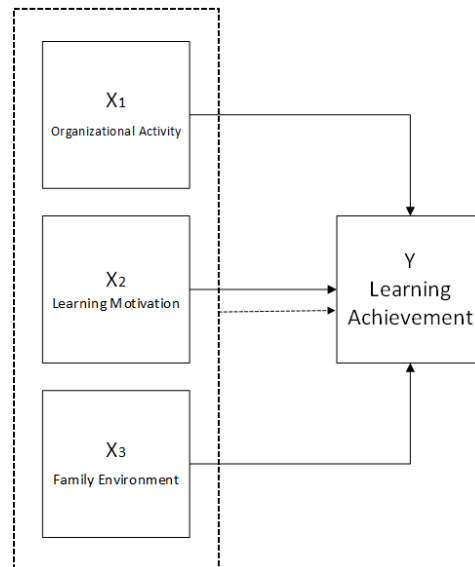


Figure 2. Research Framework

A hypothesis is a short answer to an issue that has to be supported by more thorough and relevant data. This study aimed to ascertain how vocational college students in Batam City learning achievement was impacted by organizational activity, learning motivation, and family environment. The following theories were generated as a consequence of this investigation:

H1 = Active participation in organizations has a positive and significant impact on the learning achievement of vocational college students in Batam City.

H2 = Learning motivation has a positive and significant influence on the learning achievement of vocational college students in Batam City.

H3 = Family environmental factors have a positive and significant impact on the learning achievement of vocational college students in Batam City.

H4 = Active participation in organizations, learning motivation, and family environment collectively significantly influence the learning achievement of vocational college students in Batam City.

## Results and Discussion

### Description of Research Variables

This study will divide the dependent and independent variables into four categories: very low, low, high, and very high. The following is the classification technique, which is based on the mean value and standard deviation of each variable:

$M - 1.5 SD < X$  = Very Low

$M > X \geq M - 1.5 SD$  = Low

$M + 1.5 SD > X \geq M$  = High

$X \geq M + 1.5 SD$  = Very High, Djemari Mardapi (2008: 123)

The following variables will be grouped according to the above value criteria: learning motivation (X2), organizational activity (X1), family environment (X3), and student learning achievement (Y). Table 1 provides an overview of the variable data that has to be categorized.

Table 1. Description of Research Variables Result

Variable	Mean	Standard Deviation
Organizational Activity	58,20	1,787

Learning Motivation	65,62	3,610
Family Environment	57,70	1,826
Learning Achievement	3,56	0,204

Source: Data that has been processed using SPSS 25

Table 1. Shows that the mean value for the organizational activeness variable is 58.33 (in the high category), learning motivation is 65.62 (in the high category), family environment is 57.70 (in the high category), and student achievement is 3.56 (in the very satisfactory predicate). This shows that, on average, vocational college students in Batam City class of 2021 and 2022 have high organizational activity, learning motivation, and family environment. In addition, on average, they also have very satisfying learning achievements.

### Normality Test

Given that Table 2's Asymp. Sig. Value is 0.200, and each variable's Asymp. Sig. If the result is more significant than 0.05, it is possible to conclude that all variables' data are normally distributed.

Table 2. Normality Test Result

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		92
Normal Parameters <sup>b</sup>	Mean	.0000000
	Std. Deviation	.17863226
Most Extreme Differences	Absolute	.046
	Positive	.046
	Negative	-.042
Test Statistic		.046
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Data that has been processed using SPSS 25

### Linearity Test

Table 3 shows that the relationship between the independent variable and the dependent variable each produces a significance of more than 0.05, which means it is linear. The relationship between the organizational activity variable and student learning achievement is linear, with a significant deviation from linearity of 0.229. The relationship between learning motivation variables and student learning achievement is linear, with a significant deviation from linearity of 0.912. The relationship between family environment variables and student learning achievement is linear, with a significant deviation from linearity of 0.241.

Table 3. Linearity Test Result

Variable		Sig Linearity	Sig Deviation From Linearity	Conclusion
Independent	Dependent			
Organizational Activity	Learning Achievement	0,000	0,229	Linear
Learning Motivation	Learning Achievement	0,823	0,912	Linear
Family Environment	Learning Achievement	0,234	0,241	Linear

Source: Data that has been processed using SPSS 25

### Multicollinearity Test

Table 4 displays the found VIF values of 1.198, 1.159, and 1.235. Since the number is less than 10, the variables of organizational activity, learning motivation, and family environment do not correlate.

Table 4. Multicollinearity Test Result

Variable	Tolerance	VIF	Conclusion
Organizational Activity	0,835	1,198	No Multicollinearity Occurs
Learning Motivation	0,863	1,159	
Family Environment	0,810	1,235	

Source: Data that has been processed using SPSS 25

### Heteroscedasticity Test

Table 5 shows that neither of the independent variables exhibits heteroscedasticity. The significance values of 657 for the organizational activity variable, 918 for the learning motivation variable, and 555 for the family environment variable all support this.

Table 5. Heteroscedasticity Test Result

Variable	Sig. (2-tailed)	Conclusion
Organizational Activity	,657	No Heteroscedasticity Occurs
Learning Motivation	,918	No Heteroscedasticity Occurs
Family Environment	,555	No Heteroscedasticity Occurs

Source: Data that has been processed using SPSS 25

### Hypothesis Testing

#### Multiple Linear Regression Analysis

Multiple linear regression analysis is used to forecast the behaviour of the dependent variable.

Table 6. Multiple Linear Regression Test Results

Coefficients			
Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta

1	(Constant)	4.834	.743	
	Organizational Activity	-.059	.012	-.513
	Learning Motivation	.004	.006	.075
	Family Environment	.032	.012	.288
a. Dependent Variable: Learning Achievement				

Source: Data that has been processed using SPSS 25

The multiple regression equation is shown as follows based on the regression analysis results in Table 6:

$$Y = 4,834 + -0,059X_1 + 0,004X_2 + 0,032X_3$$

### F Test Result

With a significance level of 0.000, the computed F value for the first model (Table 7) was determined to be 9.021. As a result, the significance value is less than 0.05, indicating that learning achievement is significantly influenced by organizational activity, learning motivation, and family environment all at the same time. Based on this, it can be concluded that the fourth hypothesis, which states that "family environment, organizational activity, and learning motivation simultaneously have a positive influence on the learning achievement of students," is accepted.

Table 7. F Test Result

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.893	3	.298	9.021	.000 <sup>b</sup>
	Residual	2.904	88	.033		
	Total	3.797	91			
a. Dependent Variable: Learning Achievement						
b. Predictors: (Constant), Organizational Activity, Learning Motivation, Family Environment						

Source: Data that has been processed using SPSS 25

### Test T Result

Significance of merely a portion The T-test should be used to determine how independent variable X influences dependent variable Y.

Table 8. T Test Result

Model		t	Sig.
1	(Constant)	6.503	.000
	Organizational Activity	-5.027	.000
	Learning Motivation	.747	.457
	Family Environment	2.783	.007

a. Dependent Variable: Learning Achievement

Source: Data that has been processed using SPSS 25

As a result, this analysis shows the partial influence listed below:

1. Based on the partial calculation of the effect of organizational activeness on vocational college students' learning achievement in Batam City, the table (Table 9.12) obtained a count of -5.027 with a significance level of 0.000. Because the significance value is smaller than 0.05, it can be concluded that the organizational activeness variable negatively and significantly influences student learning achievement. The higher the level of organizational activeness, the higher the learning achievement and vice versa. If students are inactive and participate in the organization, their learning achievement is higher. Thus, the first hypothesis, which states that "organizational activeness has a positive effect on the learning achievement of vocational college students in Batam City", is rejected.
2. Based on the results of the partial calculation of the effect of learning motivation on the learning achievement of vocational college students in Batam City, the t-count value is ,747 with a significance level of 0.457. Because the significance value is greater than 0.05, it can be concluded that the learning motivation variable does not influence student achievement. Thus, the second hypothesis, which states that "learning motivation has a positive effect on the learning achievement of vocational college students in Batam City", is rejected.
3. Based on the results of the partial calculation of the effect of the family environment on the learning achievement of vocational college students in Batam City, the t-count value is 2.783, with a significance level of 0.007. Because the significance value is smaller than 0.05, it can be concluded that the family environment variable positively and significantly affects student learning achievement. Thus, the third hypothesis, which states that "family environment has a positive effect on the learning achievement of vocational college students in Batam City", is accepted.

### **Test Coefficient of Determination (R<sup>2</sup>)**

The coefficient of determination (R<sup>2</sup>) indicates how well the model can explain changes in the dependent variable.

Table 9. Test Result of Coefficient of Determination (R<sup>2</sup>)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.485 <sup>a</sup>	.235	.209	.18165

Source: Data that has been processed using SPSS 25

The multiple regression test findings (Table 9) indicate that the R<sup>2</sup> (coefficient of determination) is 20.9%, or 0.209. Thus, organizational activity, learning motivation, and family environment influence 20.9% of student learning accomplishments, with other factors not included in this study influencing the remaining 79.1%.

### **Conclusion**

Based on the findings and discussion of the study, it can be concluded that organizational activity has a negative but significant effect on the academic achievement of vocational college students in Batam City. This means that students who are active in organizations actually show higher academic achievement compared to those who are not active. This is indicated by the t-count value for the organizational activity variable of -5.027 with a significance level of 0.000. Furthermore, the learning motivation variable does not influence students' academic achievement, as indicated by a t-count value of 0.747 with a significance level of 0.457. Meanwhile, the family environment has a positive and significant effect on academic achievement. Students with a family environment categorized as very

high tend to have higher academic performance, as shown by a t-count value of 2.783 with a significance level of 0.007. In addition, the variables of organizational activity, learning motivation, and family environment simultaneously have a significant effect on the academic achievement of vocational college students in Batam City. This is evidenced by an F-count value of 9.021 with a significance level of 0.000. The coefficient of determination ( $R^2$ ) is 0.209, which means that these three variables can explain 20.9% of the variation in students' academic achievement, while the remaining 79.1% is explained by other variables not examined in this study.

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