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Analysis of Factors Influencing the Learning Motivation of Vocational High School Students in Surakarta City

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ABSTRACT: Learning motivation is the willingness from within a person to learn independently or in a group without coercion from any party. The primary problem educators face at various levels of Education, especially Vocational Education, is the declining level of student learning motivation. Factors affecting students' learning motivation are the family environment, peers, and interest in learning. This study aims to analyse what factors can affect the learning motivation of vocational school students in Surakarta City. This type of research uses correlational quantitative research. The population taken in this study is vocational school students in class X in the field of Mechanical Engineering expertise in the city of Surakarta. This research was conducted using purposive sampling techniques. The data analysis technique uses correlation and regression analysis to analyse the relationship between 2 or more variables. The results show a significant and positive influence between the family environment and peers on students' learning motivation.

KEYWORDS: Family Environment, Learning Motivation, Interest in Learning, Learning Achievement

I. INTRODUCTION

Education is the most essential factor in the growth and prosperity of a country. A good education will produce good knowledge and additional skills. Quality education is education that can achieve the desired educational goals. The goal of national education is realized by establishing educational institutions with various levels of groups, such as elementary, junior high, high school, and vocational school, and further education levels, such as higher education (Puspitasari et al., 2020). Meanwhile, the National Learning System Law Number. 20 of 2003 explained that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious strength, self-control, personality, intelligence, noble morals, and skills necessary for them, society, nation, and state.

Education is critical and inseparable from life; it is absolute in life, both in a person's life, family, nation, and state. Many admit that the progress and decline of education determine the progress and decline of a nation. National education is developed in an integrated and harmonious manner between paths, types, and levels of education. Schools are formal educational institutions that prepare and provide knowledge, skills, and values for life in society as a place to plunge into the future (Lizein et al., 2023).

Education is an activity that is carried out consciously and planned to realize the teaching and learning process so that students can actively develop their potential. According to Thomson (1973:11), vocational education is carried out to develop skills, knowledge, abilities, understanding, attitudes, work habits, and appreciation needed by workers in preparing themselves to enter the world of work. The purpose of holding education is to prepare human resources who are ready to work with superior quality so that they will be able to compete in entering the existing industrial world (Khodijah, 2023). Education is also essential for a nation to produce quality human resources and contribute to its development (Morgan, 2019). Reflecting on the 17 points of the Sustainable Development Goals (SDGs), education is one of the priorities in nation-building and getting around the era of technological disruption, namely the Industrial Revolution 4.0 and Society 5.0. However, the education quality in Indonesia is still relatively low and is still in the development stage of being better in the future. Based on data released by Worldtop20, it was found that education quality in Indonesia is ranked 67th out of 209 countries in the world.

Vocational high schools also have a poor quality of education. Vocational high schools are vocational and formal educational institutions that organize education whose output students are trained and educated to prepare themselves to enter the industrial world, family companies, and others. Therefore, a good learning process must be conducted to produce qualified and competent student graduates (Sulistina et al., 2020; Nur et al., 2023). Vocational high schools have the goal of creating graduates who are expected to be able to compete in the world of work or enter the level of further education with the knowledge and skills they have gained after graduation later (Putra et al., 2020; Mingaleva & Vukovic, 2020). However, according to the Central Agency of

Statistics Indonesia, data shows that 11.91% of graduates from the vocational education level still need to be working or are looking for a job. This figure is the highest percentage of unemployment compared to other levels of education, from elementary school to university, so the goal of the desired learning process has yet to be achieved.

The quality of education in Indonesia, which still needs improvement, can be influenced by the factors of the educational curriculum used. The vocational education curriculum has the meaning of a series of learning objectives designed to create many learning activities and learning experiences for students. The vocational education curriculum aims to improve the competence of graduate students, either in the form of hard skills or soft skills. Another goal in the implementation of the vocational education curriculum is to improve the characteristics, noble character, creativity, independence, and value of diversity that they can apply when they begin to enter the world of work after they complete education (Aminah et al., 2022; Faiz & Kurniawaty, 2020). However, implementing the independent learning curriculum in schools still needs to run optimally, resulting in the teaching and learning process being hampered (Putri et al., 2023).

Education is the most important thing for improving one's quality of life. Based on the Indonesian Repukblik Law of 2003, article 1 concerning the National Education System states that education is a thing that is done consciously and in an orderly manner to create a learning environment and teaching and learning process to increase the potential level of understanding of students. There is a learning system consisting of inputs, processes, and outputs in the learning process. In the vocational education system, the success rate or goal of the learning process can be seen from the students' learning outcomes (Kwing & Lok, 2021). An important factor that can affect the learning outcomes of students is the learning motivation of the students themselves. Students will feel the benefits of the learning process in school and can know the purpose of the importance of education itself when they are motivated to learn. Learning motivation is a willingness that comes from within oneself that provides a sense of enthusiasm to achieve the goals of the learning process undertaken to achieve the learning goals themselves (Hasyim & Abadi, 2023). Learning motivation is the most crucial factor for students so that students accelerate and encourage students to learn and master the material given by the teacher, although not comprehensively (Lukita & Sudibjo, 2021).

Learning motivation is often influenced by internal and external factors. Physical factors, psychological factors, and individual skill abilities can influence internal factors. External factors can be influenced by the family environment, peer environment, school environment, or even the level of education undertaken (Lestari & Widyaningrum, 2022). Learning motivation based on the results of observations conducted at SMKN 2 Yogyakarta and SMKN 3 Yogyakarta explained that the learning interest of vocational school students is decreasing year by year, coupled with the adjustment of learning models during the Covid-19 pandemic that rely on distance learning. This learning motivation is closely related to the sub-points in the quality education points in the SDGs which highlight the Gross Participation Rate (APK) Ratio at the junior high school/equivalent, high school/vocational/equivalent levels, and universities for all groups. The meaning of Gross Participation Rate is the proportion or ratio of school children at a level of education with an age group by that level (Afifah et al., 2022).

Based on the results of observations that have been made at SMK Cokroaminoto Sukoharjo, it is explained that the learning motivation of SMK students today needs to be considered considering the number of students present at SMK Cokroaminoto Sukoharjo out of 15 existing students, there are only 3-5 students who attend every day during the teaching and learning process. This condition contradicts the SDGs, closely related to the Gross Participation Rate (APK) at the high school/vocational/equivalent education level. Not only that, SMKN 2 Yogyakarta, whose note is one of the leading schools in Yogyakarta, also regrets that the level of student learning motivation is low due to various factors.

The influence of the family environment is an external factor that can affect students' motivation to learn. The family, which is the parent, is the earliest school or education a child obtains. Parents have the most critical role in educating their children by providing exemplary education (Iskandar, 2021; Lieder et al., 2023). The family environment has a significant role in the development of education owned by children. It can happen because most of the time spent by children or students is spent in the family environment (Rahayu & Trisnawati, 2021). The role of a good family environment has a positive impact on the level of learning motivation of students (Descals-Tomás, 2021; Lestari, 2020).

In addition to the family environment, peer influence is also included in external factors that affect students' motivation to learn. The peer factor significantly affects the growth and development of students' thinking and the influence of students' learning motivation (Nursakdiah et al, 2023). It is because, in the school environment, peers are the first social environment for children. After all, the time they spend in addition to gathering with family at home, they also study at school and socialize with school friends (Hartanti, 2022).

Regain et al. (2020) said that social support from peers in the school environment dramatically impacts students' mentality and minds because they have the same age vulnerability, so it will be easier to provide learning motivation for themselves. It is also strengthened because the influence of peers in the school environment which can be in the form of empathy, care, affection, and good communication can have an impact on changing good social attitudes as well (Saputro & Sugiarti, 2021)

In addition to external factors, internal factors affect students' motivation to learn, namely the student's interest in learning. Learning motivation is a desire to understand and learn science at the level of education, which is carried out consciously and without coercion from other parties. According to the opinion of an expert, Dewey, J. (1913), interest in learning is the willingness

or encouragement obtained to expand more experiences. Strong learning interest will affect students' motivation to deepen their knowledge, which is better, and obtain satisfaction in the teaching and learning process undertaken (Lizein et al., 2023). We can see students' interest in learning from their liking or interest in teaching and learning activities. Good learning interest will positively impact students' learning motivation compared to students who have no interest in learning at all (Rista, 2022). We can see students' interest in learning from indicator indicators such as student interest in learning activities, student attention during the learning process, level of understanding, and student curiosity in the learning process (Vhaleri et al., 2021).

Based on the discussion explained earlier, the influence of student learning motivation is the main problem in national education today. The impact of school holidays during the COVID-19 pandemic, coupled with the online learning process and the abolition of exams as a determinant of whether students pass or not to enter a higher level of education, is also one of the factors that cause low student learning motivation. The role of parents and friends in the school environment and the will of everyone significantly affect the level of student learning motivation.

Based on the observations made at SMKN 2 and 3 Yogyakarta, as well as SMK Cokroaminoto Sukoharjo, SMK students now have no interest in learning. Even at SMK Cokroaminoto Sukoharjo, out of 15 students, only 3-5 students attend every day during the teaching and learning process. Not only that, at SMKN 2 Yogyakarta, whose memorandum is one of the leading schools in Yogyakarta, it is also regrettable that the level of student learning motivation is very low due to various factors.

Based on the explanation given, the objectives of this research process are as follows: (1) Analyzing the influence of the family environment on the learning motivation of vocational school students. (2) Analyze peers' influence on vocational school students' learning motivation. (3) Analyze the influence of students' learning interests on the learning motivation of vocational school students. (4) Analyze the influence of family environment, peers, and students' learning interests on the learning motivation of vocational school students. This study found that the results of a partial test regarding the influence of the family and peer environment had a significant and positive effect on students' learning motivation. At the same time, the variable of learning interest did not have a significant and positive effect on vocational school students' learning motivation. In the simultaneous test results, there was a significant and positive influence between variables of family environment, peers, and students' learning interests on the learning motivation of vocational school students in Surakarta City. The results of the research that have been obtained can be used as a guideline and reference to increase the level of learning motivation of vocational school students in the field of Mechanical Engineering expertise in the city of Surakarta by improving good relationships between the family environment and peers and increasing the learning interest of vocational school students.

II. METHOD

This study is quantitative research using a regression and correlational quantitative approach. This statistical method is carried out to analyze the relationship between two or more variables. Regression is used to determine the relationship between one dependent variable to one dependent variable, while correlation is used to determine the relationship between two independent variables. The variables used in this study include family environment, peers, student learning interests, and student learning motivation. This research was conducted in all vocational schools in Surakarta City with mechanical engineering expertise. There are 11 vocational schools in Surakarta City, with details of 9 private and two public vocational schools. The total population taken in this study is vocational school students in class X in Mechanical Engineering expertise from 11 vocational schools in Surakarta City, totaling 758 students. The selection of samples in this study was carried out using the prosocial sampling technique where the school appointed students who were able to represent all students of the same generation at the vocational school and students who were present and willing to fill out a questionnaire that could be used as a sample in this study with a sample of 500 students.

This research was carried out from February 12 to March 31, 2024. The data collection techniques used in this study are questionnaires, interviews, and documentation. The questionnaire tests family environment, peers, learning interests, and students' learning motivation. The questionnaire used a 4-likert scale and data analysis using multiple regression analysis using IBM SPSS Statistics 25 software and Microsoft Office Excel 2019. In addition, the research instrument was tested using a reliability validity test to ensure that the question was ready to be used in this study. The data analysis technique uses descriptive analysis and hypothesis testing, describing the data obtained for each variable and analysis.

III. RESULT AND DISCUSSION

A. RESULT

The results of this research test discuss the influence of the family environment, peers, and students' learning interests on the learning motivation of Vocational High School (SMK) students in Surakarta City in the field of Mechanical Engineering expertise. This research was carried out on students of vocational school class X in Mechanical Engineering expertise in Surakarta for the 2023/2024 school year with a total of 500 respondents. This research was carried out at SMK Bhineka Karya, SMK Pancasila, SMKN 2, SMKN 5, SMK PGRI, SMK Murni 1, SMK Kristen 2, SMK Warga, SMK St. Mikael, SMK Tunas Pembangunan 2, and SMK Tunas Pembangunan 3. The measurement of variables of family environment, peers, and students' learning interests was taken using a questionnaire as a data collection tool in this research process.

The data that has been obtained will be analyzed descriptively, and then the prerequisites for analysis will be used to test existing hypotheses further. Descriptive analysis describes the level of data acquisition in each variable studied. The testing of analysis requirements carried out by the researcher includes the normality test, linearity test, multicollinearity test, and heteroscedasticity test. Furthermore, hypothesis testing is carried out with a t-test to see if there is a partial influence between the free and bound variables. Then, the f-test is also used to see if there is an influence between the free variable and the bound variable simultaneously.

1. **Normality Test**

The normality test in this study was carried out so that the researcher could see whether the results of the data obtained were distributed normally or not. The normality test in this study was carried out with the help of SPSS IBM Statistic software version 25. The basis for making decisions in this normality test is by comparing the results of the calculation significance value, whether it is greater than the significance level of 0.05, which can be interpreted as the data obtained is distributed normally.

The normality test results obtained at the significance value (Asymp. Sig. (2-tailed)) are 0.200. From these results, the significance value obtained is more than 0.05, which means that the data obtained is distributed normally.

2. **Linearity Test**

The linearity test in this study aims to determine whether there is a linear relationship between independent and bound variables. This linearity test was conducted using the IBM SPSS Statistic software application version 25. Decision-making related to the results of this linearity test was obtained by comparing the deviation from the linearity significance value with the F value obtained. Suppose the deviation from linearity significance value is more than 0.05 (deviation from linearity significance > 0.05). In that case, the results of the linearity test obtained are a linear relationship between the independent variable and the bound variable. If the value of F value is < the value of F table, then there is a significant linear relationship between the independent and bound variables.

Table 1. Linearity Test Results

ANOVA Tabel		
Variable	Deviation from Linearity	
	F	Sig.
Family influence (X1) → Learning Motivation (Y)	0,519	0,963
Peer influence (X2) → Learning Motivation (Y)	1,052	0,397
Influence of learning interest (X3) → Learning motivation (Y)	0,802	0,730

Based on the results of the table on the linearity test, the result was obtained in the form of a significance value on the family influence variable (X1) on learning motivation (Y) is Deviation from Linearity Significance 0.963>0.05, so there is a linear relationship between the family influence variable (X1) on learning motivation (Y). The significance value of the peer influence variable (X2) on learning motivation (Y) is Deviation from Linearity Significance 0.397 > 0.05, so there is a linear relationship between the peer influence variable (X2) on learning motivation (Y). The significance value of the variable influencing learning interest (X3) on learning motivation (Y) is Deviation from Linearity Significance 0.802 > 0.05, so there is a linear relationship between the variable influencing learning interest (X3) on learning motivation (Y).

3. **Multicollinearity Test**

The multicollinearity test conducted in this study aims to determine whether there is a multicollinearity relationship between independent variables and bound variables in this study. The multicollinearity test in this study was carried out with the help of the IBM SPSS statistics software application version 25. Decision-making in the multicollinearity test is carried out in such a way that if the value of the variance inflation factor (VIF) result is < 10, the research results do not occur in multicollinearity. In addition, if the tolerance value is > 10, the result obtained is that multicollinearity does not occur.

Table 2. Multicollinearity Test Results

Coefficients		
Variable	Collinearity Statistics	
	Tolerance	VIF
Family influence (X1) → Learning Motivation (Y)	0,742	1,348
Peer influence (X2) → Learning Motivation (Y)	0,635	1,576
Influence of learning interest (X3) → Learning motivation (Y)	0,648	1,542

Based on the results of the multicollinearity test data from the results of the table above, the variable of the influence of the family environment (X1) on learning motivation (Y) with a tolerance value of 0.742 > 0.10 and a VIF value of 1.348 < 10, then there are no symptoms of multicollinearity. Furthermore, the variable of peer influence (X2) on learning motivation (Y) with a tolerance value of 0.635 > 0.10 and a VIF value of 1.576 < 10, there are no symptoms of multicollinearity. Learning (Y) with a tolerance value of 0.648 > 0.10 and a VIF value of 1.542 < 10, then there are no symptoms of multicollinearity.

4. Heteroscedasticity Test

The Heteroscedasticity test conducted in this study aims to determine whether there is a residual from one observer to another in a regression model with a variance. The heteroscedasticity test in this study was carried out using Spearman's rho correlations method, which was carried out by correlating the results of independent variables with existing residuals. The heteroscedasticity test was carried out with the help of the IBS SPSS statistics software application version 25. It is a good sign if there are no heteroscedasticity results in the regression model. Decision-making in this heteroscedasticity test was done by comparing the significance value (two-tailed) > 0.05, which means no heteroscedasticity symptoms occurred.

Table 3. Heteroscedasticity Test Results

Spearman's Rho Correlations	
Variable	Significance (2-tailed)
Influence of Family Environment (X1)	0,789
Peer Influence (X2)	0,728
Influence of Learning Interest (X3)	0,974

Based on the results of the heteroscedasticity test presented in the table above is that the significance value on the variables of influence of the family environment is 0.789 > 0.05; the results obtained are that there are no symptoms of heteroscedasticity in the variables of influence of the family environment. The significance value of the peer influence variable was 0.728 > 0.05, so the result was that there were no heteroscedasticity symptoms in the peer influence variable. The significance value of the variable influencing learning interest was 0.974 > 0.05, so the result was that there were no symptoms of heteroscedasticity in the variable influencing learning interest.

5. Partial Significance Test

This study's partial significance test or t-test aims to test the hypothesis between the influence of independent variables and partially or independently bound variables. This partial significance test was carried out using the multiple linear regression analysis.

The hypothesis on the variables of the influence of the family environment on learning motivation is:

H_0 = There is no influence of family environmental factors on the level of learning motivation of vocational school students majoring in machinery in the city of Solo.

H_1 = Family environmental factors influence the level of learning motivation of vocational school students majoring in machinery in the city of Solo.

The hypothesis on the variable of peer influence on learning motivation is

H_0= There is no influence of peer factors on the level of learning motivation of vocational school students majoring in machinery in the city of Solo.

H_1= Peer factors influence the level of learning motivation of vocational school students majoring in machinery in the city of Solo.

The hypothesis on the variable of the influence of learning interest on learning motivation is

H_0= There is no effect of learning interest on the level of learning motivation of vocational school students majoring in machinery in the city of Solo.

H_1= There is an influence of learning interest on the level of learning motivation of vocational school students majoring in machinery in the city of Solo.

The results obtained in this study's partial significance test (t-test) are explained in the table below.

Table 4. Results of the Partial Significance Test (t-Test)

Coefficients		
Model	t	Sig.
Family Environment (X_1) → Learning Motivation (Y)	1,967	0.049

Peer (X_2) → Learning Motivation (Y)	1,982	0.047
Learning Interest (X_3) → Learning Motivation (Y)	0,747	0.456
a. Dependent Variable: Leaning motivation		
b. Predictors: (Constant), Family Environment, Peer, Learning Interest		

The basic conditions for whether the results of the partial significance test (t-test) are obtained are 1) If the t-count > t-table, then Ho is rejected, and H1 is accepted. Thus, the conclusion obtained is that partial variables affect bound variables. 2) If the significance value obtained is less than the significance level of 5 % or α = 0.05 (Sig < 0.05), Ho is rejected, and H1 is accepted. Thus, it can be interpreted that the variable partially affects the bound variable.

From the t-test results obtained on the family environment variable, which is a t-count value of 1.967 larger than the t-table of 1.962 (1.967>1.962) and a significance value of 0.049 < 0.05, Ho is rejected, and H1 is accepted. Thus, family environment variables influence the learning motivation variables of vocational school students in Surakarta City with expertise in mechanical engineering. Thus, there is a significant and positive influence between the variables of the Family Environment and the student's Learning Motivation.

From the t-test results obtained on the peer variable, the t-count value is 1.982 larger than the t-table 1.962 (1.982 > 1.962), and the significance value is 0.047 < 0.05, then Ho is rejected, and H1 is accepted. Thus, the peer variable influences the learning motivation variable of vocational school students in Surakarta City in Mechanical Engineering expertise. Thus, a significant and positive influence exists between the peer variable and student learning motivation.

From the t-test results obtained on the variable of learning interest, the t-calculated value of 0.747 was smaller than the t-table of 1.962 (0.747 < 1.962). The significance value was 0.456 > 0.05, and then Ho was accepted, and H1 was rejected. Thus, there was no influence of the variable of learning interest on the learning motivation of vocational school students in Surakarta City in Mechanical Engineering expertise. Thus, there is partially no significant and positive influence between peer variables and student learning motivation.

6. Simultaneous Significance Test (F-Test)

The Simultaneous Significance Test or F-test is used to test the results of data between the influence of independent variables on the bound variables simultaneously. This test was carried out using multiple linear regression analysis. The hypothesis that exists in this simultaneous significance test is:

H_0 = There is no simultaneous influence of family and peer relationships and students' learning interests on the learning motivation of vocational school students in Surakarta City in the field of Mechanical Engineering expertise

H_1 = There is an influence of family environmental relationships, peers, and students' learning interests simultaneously on the motivation of vocational school students in Surakarta City in Mechanical Engineering expertise.

The conditions required to decide the partial significance test are as follows: 1) The value of F-count > F-table, then a decision can be made to reject H_0, and H_1 is accepted. Thus, the independent variable partially affects the bound variable. 2) if the significance value obtained is < the significance level of 5% (α = 0.05), then Ho is rejected, and H1 is accepted; thus, it can be concluded that the independent variable partially affects the bound variable. The results of the partial significance test can be seen in the table below.

Table 5. Simultaneous Significance Test Results

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	127.048	3	42.349	2.686	.049[b]
	Residual	8121.502	496	16.374		
	Total	8248.550	499			
a. Dependent Variable: Learning Motivation						
b. Predictors: (Constant), Family Environment, Peer, Learning Interest						

The information from Table 5 above is the F-calculation value and the significance value obtained on the influence of the Family Environment, Peers, and Student Learning Interest on student learning motivation. The F-count value obtained in this study was 2.686, and the significance value obtained was 0.049. The F-count value was 2.686>2.37, while the significance value obtained was 0.049<0.05, then H_0 was rejected, and H_1 was accepted. Thus, there is an influence between the Family Environment, Peers, and Student Learning Interest variables on the learning motivation of vocational school students in Surakarta City in Mechanical Engineering expertise. The results of the partial significance test found that there was a positive

and significant influence between the influence of Family Environment, Peers, and Student Learning Interest on student Learning Motivation.

7. **Partial Determinant Coefficiency Test**

The partial determination coefficient test in this study aims to determine how much influence occurs on the independent variable on the bound variable by looking at the results of the Efficiency Contribution (SE) and Relative Contribution (SR) calculation. The calculation of SE and SR was obtained by knowing the results obtained in Standardized Coefficient (Beta) and Pearson Correlation. The calculation was carried out with the help of the IBM Statistic 25 SPSS software application and Microsoft Office Excel 2019 software. The partial determination coefficient test results can be seen in the table below.

Table 6. Results of the Coefficient Test of Partial Determinants

Variable	Standardized Coefficient (Beta)	Pearson Correlation	Effective Contribution (EC) (%)	Relative Contribution (RC)
Family Environment	0,251	0,625	15,68%	0,30
Peers	0,341	0,875	29,84%	0,56
Learning Interest	0,282	0,266	7,50%	0,14
a. Dependent Variable: Learning Motivation				
b. Predictors: (Constant), Family Environment, Peer, Learning Interest				

The table results showed that the effective contribution produced by the family environment variable to learning motivation was 15.68%, with a relative contribution of 30%. It can be interpreted that the relative contribution to the family environment variable contributes 15.68%.

The results of the following table show that the effective contribution produced by the peer variable to learning motivation is 29.84%, with a relative contribution of 56%. It can be interpreted that the relative contribution to the peer variable contributes 29.84%.

The results of the last table showed that the effective contribution produced by the variable of learning interest to learning motivation was 7.5%, with a relative contribution of 14%. It can be interpreted that the relative contribution to the learning interest variable is 7.5%.

8. **Simultaneous Determination Coefficient Test**

The simultaneous determinant coefficiency test was carried out with the help of the IBM SPSS Statistic software application version 25. The test was carried out using multiple regression analysis. The value of the determinant coefficient is obtained from the R square result. The R-squared value obtained results from the sizeable simultaneous influence between the independent and bound variables. The partial determinant coefficiency test results can be seen in the table below.

Table 7. Results of the Simultaneous Coefficient of Determination Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724[a]	0.530	0.594	4.046
a. Predictors: (Constant), Family Environment, Peer, Learning Interest				
b. Dependent Variable: Learning Motivation				

Based on the power results obtained in the table above, it shows that the R square result obtained is 0.530, where the results can be interpreted that the simultaneous influence between the variables of family environment, peers, and students' learning interests affects 53%. The remaining 47% is learning motivation influenced by variables other than the free variable. In addition, the R-value is 0.742, which can be interpreted as a high correlation between the family environment, peers, and students' interest in learning motivation. The value of positive regression coefficients shows a positive relationship between the independent variable and the bound variable. The value of Adjusted R Square shows how much the role of the independent variable influences the bound variable. The Adjusted R Square result obtained in this study was 59.4%.

B. DISCUSSION

1. The Influence of Family Environment on Student Learning Motivation

Based on the results of the prerequisite tests and hypothesis tests that have been carried out, The results obtained were indeed justified by the principal or deputy principal for student affairs, who said that many influences on the family environment could affect the level of student learning motivation, student learning outcomes, and student readiness to face education at school. Many family factors affect this, including family economic factors, parental harmony factors, and family attention given to students.

In addition, there were about 34 students out of a sample of 500 students who did not live with their parents and were even left behind by one of their families or parents; they no longer had high motivation to learn because they prioritized helping the family they were currently riding with to earn extra money. So many students focus more on working than following the classroom learning process. The last education of students' parents also affects their thoughts and insights into the world of education for their children. There are more than 105 students whose parents have only achieved junior high school education. So, they cannot provide an overview and insight for their children about today's world of education.

As for students in the lower middle economic class category, they also prefer to work compared to participating in learning activities at school, so indirectly their motivation to study is low because they are more motivated to make money to meet their needs and their families. Based on the data taken, there are more than 76 students whose parents only have a salary of less than Rp 1,000,000 (one million rupiah), and there are around 273 students whose parents only have a salary between Rp 1,000,000 to Rp 3,000,000 within one month. Therefore, many students prefer to work to help finance their family life and help pay for the school fees they are undergoing.

In addition, from the relevant research studies, many researchers have obtained the same results regarding the family environment, which significantly affects the learning motivation of vocational school students. Although many of them focus only on their parents, in general, family can positively affect their child's motivation level.

2. The Influence of Peers on Student Learning Motivation

In the results of the prerequisite test and hypothesis test that have been carried out, the results obtained are indeed also maintained by the educators at vocational schools in Surakarta City. This is evidenced by the presentations delivered by the teachers, principals, or deputy principals of the student affairs section, who talk about every problem experienced by students in their respective schools. Peers have a significant influence on students' learning motivation. Peer involvement in school can affect the learning motivation level and students' attitudes, behaviors, and behaviors at school and home. Many things affect students, such as classmates' associations, the influence of peer associations outside of school, and students' familiarity with their peers.

The association of friends or classmates in the school environment dramatically affects the level of student learning motivation at SMK. Based on the information submitted by the head of the Mechanical Engineering expertise division, it was said that several students often skipped school due to their friends' invitation not to go to school or to come late. In addition, peers in class 1 also often teach to play games during the teaching and learning process. It happened in almost all vocational schools in Surakarta City, both public and private vocational schools.

Even in organizing both in the school environment and outside of school, students are more likely not to follow both. More than 342 students out of 500 samples did not participate in any organization in the school environment at all, and there were 213 students who did not participate in organizational activities outside of their school. Moreover, from a sample of 500 students, 186 students considered that there was no benefit to participating in organizational activities anywhere. Moreover, they prefer to play and have fun with their friends' friends only. So, the impact of peers is very influential on students' behavior and motivation to learn.

In addition, from the relevant research studies that have been submitted above, many studies agree with the results of this study; it happens because peers are the first social environment for children, so with the time they spend with their friends, they can also have a positive or negative effect on their child's level of motivation to learn.

3. The Effect of Learning Interest on Learning Motivation

Although the results obtained are inversely proportional to the existing relevant studies, and even the overall results obtained in other studies always argue that learning interest always affects learning motivation, so in this study, we can explain why learning interest does not have an impact on the level of student learning motivation.

From the results of observations during the research process, the interest of young people or vocational school students in the city of Surakarta today is more likely in terms of things that are considered less valuable; some of them are more interested in becoming gamers, YouTubers, or even becoming vloggers. It triggers children to spend more time on hobbies. So their interest in learning becomes low, and even their motivation to learn decreases along with the new hobby they are engaged in.

It can also be proven by the number of students who do not participate in extracurricular programs, organizations, or competitions both at the school level and outside of school. Of the 500 student samples I got, only about 158 students, or

32%, participated in organizations or competitions in their activities at school. Although in extracurricular activities or organizations outside of school, 287 students prefer to carry out activities or organizations outside of school. In addition, from 500 samples, about 37% or 186 students considered that joining an organization either outside or inside school did not have any impact on them, and they considered it to be of no benefit to them. It is a particular concern for the school because the school has tried its best to help its students achieve achievements and accommodate the talents and talents that exist in their students.

In addition, many students still need a special place to study at home; out of a sample of 500 students, 384, or around 77%, do not have a special place to study at their homes. In addition, of the 384 students who did not have a special place to study, there were about 70 students who still needed a house or a suitable place to study. So, as many as 414 of their students only have time to study for less than an hour a day or do not even study at all. Moreover, there are about 426 students who only study once a day and, even then, only do homework. It is also one of the decreases in students' interest in learning, where they prefer to play and have fun or even work compared to independent learning activities or at school.

Therefore, interest in learning is essential for every student so that they have a particular tendency or desire to learn and gain knowledge and competencies that they can use to enter the world of work later. In addition, a statement was conveyed by one of the principals of private schools in Surakarta City, who explained that, after the COVID-19 pandemic, many students experienced a decrease in participation in the learning process at school. The principal explained that for now, students no longer have a burden at school, in contrast to the past when students were still eager to learn to prepare for exams, prepare for selection to enter the world of work, and prepare for daily tests or assignments given by teachers.

Principals of various vocational schools in Surakarta also explained that children's willingness to read books is considered very low or even never. Students only rely on technology, such as Google or chatGPT (AI), to help them do assignments at school or take daily exams or tests. The negative impact of using technology is a decrease in students' interest in reading, and students need to be more active to learn. They want answers instantly, and their tasks can be completed well.

4. **The Influence of Family Environment, Peers, and Students' Learning Interests on Student Learning Motivation**

From the results obtained in this study, many underestimate the decline in children's learning motivation levels, especially vocational school children. From the existing BPS data, the unemployment rate from the vocational education level has the most significant contribution of 11.98% for now compared to other levels of education. It is a thing that is significantly inversely proportional to the vision, mission, and goals of the learning process at SMK, where when they graduate sometime from the vocational education level, they will be able to compete and be able to get a job with the competencies and skills they have.

Even now, the urgency faced by many schools, especially public schools in the city of Surakarta, learning motivation and motivation to register and enter the world of work has also decreased a lot compared to the years before the COVID-19 pandemic existed. It concerns many senior teachers who are afraid that later, new or prospective teachers will become vocational teachers because vocational school students have no motivation to learn. Even in the classroom, they are only busy playing games with their friends or only limited to chatting with their friends.

They think that the learning results they have gotten so far have always been good, and they always pass when taking any exam or daily test. It is also a factor that lowers the level of student's motivation to learn because they seem to need to have their targets or responsibilities as students during the learning period. As for some cases that are currently going viral, many parents even defend their children when their children make mistakes, and they also do not accept when their children are punished for making mistakes or violating existing rules.

This factor is also another determining factor that decreases the level of children's learning motivation, especially the learning motivation of vocational school students in Surakarta City in the field of mechanical engineering expertise.

IV. CONCLUSION

Based on the results of the research that has been obtained and described in the results of the research and discussion of data about the family and peer environment on the learning motivation of SMK class X students in the field of Mechanical Engineering expertise in the city of Surakarta, a conclusion was obtained that focuses on the formulation of the problem in this study. The conclusions of this study are as follows.

a. There is a significant and positive relationship between family environment variables and the learning motivation of vocational school students
b. There is a significant and positive relationship between peer variables and the learning motivation of vocational school students
c. There is no significant and positive relationship between the variables of learning interest and the learning motivation of vocational school students
d. There is a significant and positive relationship between variables of family environment, peers, and learning interest on the learning motivation of vocational school students

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