THE EFFECT OF FAMILY HARMONY AND SCHOOL ENVIRONMENT ON STUDENTS' LEARNING OUTCOMES IN MATHEMATICS SUBJECT

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Abstract:
This study aimed to determine the effect of family harmony and school environment on students learning outcomes in mathematics for grade VII SMP Negeri 2 Tinambung. This research is an ex post facto research, causal-comparative research with a research sample of 70 students selected using probability sampling (proportionate stratified random sampling). The data collection techniques used the family harmony questionnaire, school environment questionnaire, and mathematics learning outcomes test. The data analysis techniques use descriptive and inferential statistical analysis. The results of this study are (1) family harmony has a positive and significant effect on student learning outcomes in mathematics, (2) the school environment has a positive and significant effect on student learning outcomes in mathematics, and (3) family harmony and school environment together have a positive and significant effect on students learning outcomes in mathematics. The recommendation is to create a good school environment to support the learning process. Also, efforts should be made to harmonize families by conducting joint activities with all family members, love each other, create a peaceful home atmosphere, build good and open interaction and communication between family members so that it is possible for children to get a good atmosphere in learning in order to achieve better learning outcomes.

Keywords: Family Harmony, School Environment, Mathematics Learning Outcomes

PENGARUH KEHARMONISAN KELUARGA DAN LINGKUNGAN SEKOLAH TERHADAP HASIL BELAJAR SISWA PADA MATA PELAJARAN MATEMATIKA

Abstrak:
Tujuan penelitian ini adalah untuk mengetahui pengaruh keharmonisan keluarga dan lingkungan sekolah terhadap hasil belajar siswa pada mata pelajaran matematika kelas VII SMP Negeri 2 Tinambung. Penelitian ini adalah penelitian ex post facto yang bersifat Causal Comparative Research dengan sampel penelitian sebanyak 70 siswa yang dipilih dengan menggunakan Probability Sampling (proportionate stratified random sampling). Teknik pengumpulan data menggunakan angket

keharmonisan keluarga, angket lingkungan sekolah, dan tes hasil belajar matematika. Teknik analisis data menggunakan analisis statistik deskriptif dan inferensial. Hasil penelitian ini adalah (1) keharmonisan keluarga berpengaruh positif dan signifikan terhadap hasil belajar matematika siswa, (2) lingkungan sekolah berpengaruh positif dan signifikan terhadap hasil belajar matematika siswa, dan (3) keharmonisan keluarga dan lingkungan sekolah secara bersama-sama berpengaruh positif dan signifikan terhadap hasil belajar matematika siswa. Rekomendasi penelitian ini adalah menciptakan lingkungan sekolah yang baik untuk mendukung proses pembelajaran. Selain itu, upaya yang harus dilakukan untuk mengharmoniskan keluarga dengan melakukan kegiatan bersama dengan seluruh anggota keluarga, saling menyayangi, menciptakan suasana rumah yang damai, membangun interaksi dan komunikasi yang baik dan terbuka antar anggota keluarga sehingga memungkinkan anak mendapatkan suasana yang baik dalam belajar untuk mencapai hasil belajar yang lebih baik.

Kata Kunci: Keharmonisan Keluarga, Lingkungan Sekolah, Hasil Belajar Matematika

INTRODUCTION

Mathematics is an important part of human education because mathematics is relevant to various branches of science that we encounter in everyday life. According to Titin (2014), learning mathematics aims to equip students with the ability to think logically, analytically, systematically, critically, and creatively, as well as the ability to work together.

In general, mathematics is a subject that is very difficult for some students to understand. Students view mathematics as unattractive and unpleasant, and some even hate it. According to Yeni (2015), mathematics is difficult to understand because it is abstract by elementary-level students and even college students. Great expectations to make mathematics one of the preferred sciences are not in accordance with the phenomena or facts that occur, especially in Indonesia, because there are still many students who think that mathematics is a difficult, boring subject so that it becomes one of the factors that affect students mathematics learning outcomes. This can be seen from the low students learning outcomes in mathematics. One indicator that shows the quality of education in the country tends to be low is the results of

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the TIMSS study (Trends In International Mathematics and Science Study) and research studies of PISA (Program for International Student Assessment).

TIMSS and PISA studies show that students' mathematical abilities in Indonesia are still very low and below international standards. The results of TIMSS study show that mathematics learning in Indonesia is ranked at the bottom. The results of the 2015 TIMSS study, Indonesia is ranked 44th out of 49 countries (Hadi & Novaliyosi, 2019). The thing that is not much different is PISA results in 2018, which placed Indonesia at number 72 out of 78 countries in mathematics (Tasman, 2020).

The learning outcomes that have not been maximized indicate that many students have not yet completed their studies. Several factors influence students' mathematics learning outcomes: internal and external factors. According to Slameto (2003), internal factors come from within students, such as physical and psychological factors. External factors come from outside the students, such as family, school environment, and community factors. So it can be concluded that one of the important factors that can affect student learning outcomes is family harmony and the school environment.

Factors that can affect learning outcomes are family harmony. According to Drajat in Awi, Mewengkang, and Golung (2016), a harmonious family is where all family members carry out their respective rights and obligations, love, mutual understanding, communication, and good cooperation between family members are established. According to Jamil and Azra (2019), harmonious and caring family conditions will encourage children to study hard, ultimately achieving optimal learning outcomes.

In addition to family harmony, a supporting factor that can affect student learning outcomes is the school environment. Following the opinion of Yana and Jayanti (2014), a comfortable and pleasant school environment for learning will have a major influence on the learning outcomes obtained by students as long as they attend lessons at school. According to Sari (2019), the school environment is all physical, social and academic components around learning activities that play a major role in achieving school goals. The school environment includes teacher teaching methods, teacher-student relationships, student-student relations, school discipline, and school facilities.

Based on information obtained by researchers through observations and interviews conducted with seventh-grade teachers of SMP Negeri 2 Tinambung on October 22, 2020, that most of the students were in a condition where their families were less harmonious. The lack of harmony includes

various factors, including the lack of parental attention, the absence of time together between families, and the absence of good and close communication relationships between parents and children. This causes most students to get low learning outcomes. Muslih (2021) stated that the first and most important place of learning is in the family. Parents in the family environment will form children who still do not understand anything. Children's talents and interests will grow well in a harmonious family environment.

In addition to the less harmonious family conditions of the students, the researchers also found that the school environment at SMP Negeri 2 Tinambung was still lacking. This is indicated by the teaching method used by the teacher is monotonous, only providing explanations of the material and giving assignments, then the lack of learning facilities provided in schools. One of the seventh-grade students said that the textbooks distributed at school were very limited, namely, two students in one textbook. This is the cause of the less than optimal mathematics learning outcomes for class VII students of SMP Negeri 2 Tinambung. Judging by the student learning outcomes, test scores, assignments, and mid-semester exam scores, many students have not achieved the Minimum Completeness Criteria of 70.00.

From some of the learning problems of class VII students of SMP Negeri 2 Tinambung, researchers focused on the problem of low learning outcomes in mathematics, family harmony, and school environment because these problems are the dominant problems that occur in SMP Negeri 2 Tinambung. Besides, some experts say that family harmony and school environment play an important role in achieving students learning outcomes.

METHODS

The type of research is Causal Comparative Research, a type of research directed to investigate causal relationships based on observations of the effects and look for factors that cause them through the data collected. This research was conducted at SMP Negeri 2 Tinambung in class VII in the even semester of the 2020/2021 academic year.

The population in this study was class VII students of SMP Negeri 2 Tinambung in the academic year 2020/2021, which consisted of 7 classes, namely class VII A, VII B, VII C, VII D, VII E, VII F, and VII G with a total of 236 students. The number of samples used is 70 students with a proportional stratified random sampling technique.

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This study's data analysis techniques can be divided into two activities, namely descriptive and inferential analysis. The descriptive analysis provides an overview of family harmony, school environment, and students learning outcomes in mathematics. The inferential analysis is used to test research hypotheses, whereas the analysis used is simple and multiple regression analysis. The hypotheses are:

1. Family harmony has a positive and significant effect on students learning outcomes in mathematics,
2. School environment has a positive and significant effect on students learning outcomes in mathematics, and
3. Family harmony and school environment simultaneously have a positive and significant effect on students learning outcomes in mathematics.

Before testing the hypothesis, the prerequisite tests were carried out, namely the normality test, linearity test, multicollinearity test, and heteroscedasticity test.

RESULTS AND DISCUSSION
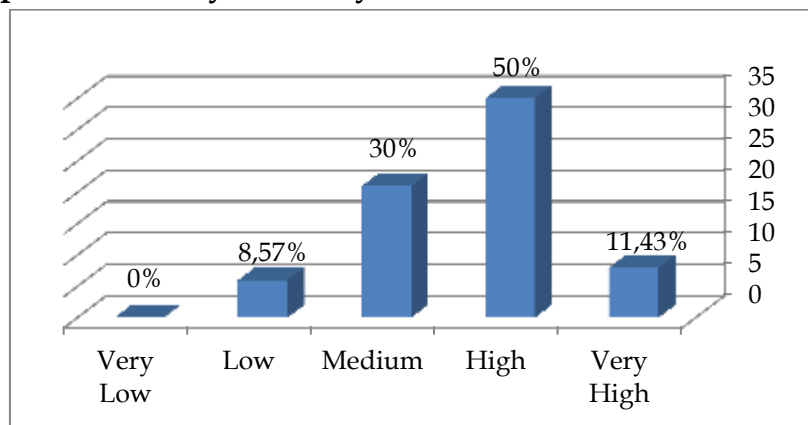**1. Description of Family Harmony Data**

Figure 1. Description of Family Harmony Data

Based on the descriptive analysis, it was found that the average score of family harmony was 91.44 with an ideal score of 125, which means that the family harmony of the students of SMP Negeri 2 Tinambung is in the high category. In figure 1, no students (0% of 70 students) are in very low category, 6 students (8.57% of 70 students) are in low category, 21 students (30% of 70 students) are in medium category, 35 students (50% of 70 students) are in high category, and 8 students (11.43% of 70 students) are in very high category.
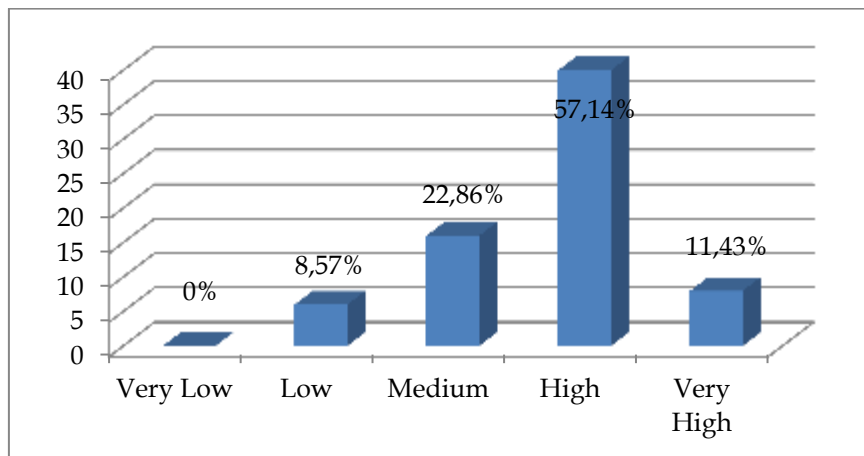
2. Description of School Environment Data

Figure 2. Description of School Environment Data

Based on the descriptive analysis, it was found that the average score of the school environment was 93.07 with an ideal score of 125, which means that in the school environment, the students of SMP Negeri 2 Tinambung are in the high category. In figure 2, no students (0% of 70 students) are in very low category, 6 students (8.57% of 70 students) are in low category, 16 students (22.86% of 70 students) are in medium category, 40 students (57.14% of 70 students) are in high category, and 8 students (11.43% of 70 students) are in very high category.

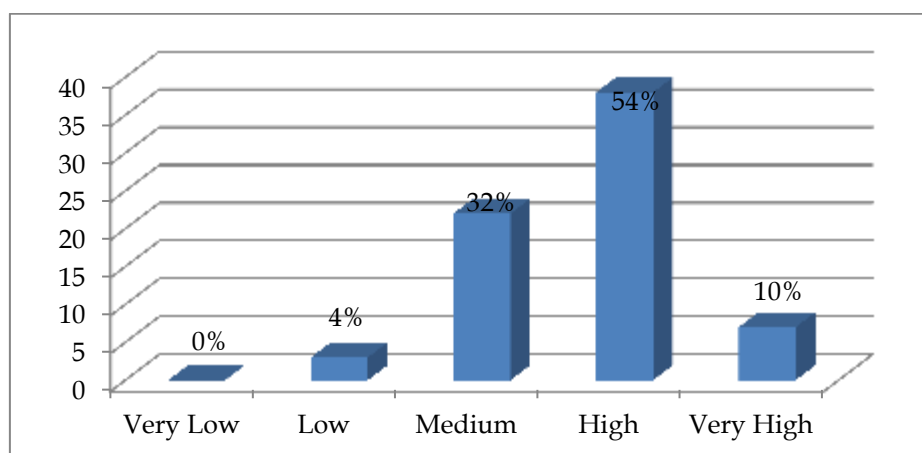## 3. Description of Mathematics Learning Outcomes Data

Figure 3. Description of Mathematics Learning Outcomes Data

Based on descriptive analysis, it was found that the average score of mathematics learning outcomes was 76.70 with an ideal score of 100, which means that the mathematics learning outcomes of SMP Negeri 2 Tinambung

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students are in the high category. In the diagram above, the percentage score of learning outcomes is obtained, namely, no students (0% of 70 students) are in very low category, 3 students (4% of 70 students) are in low category, 22 students (32% of 70 students) are in medium category, 38 students (54% of 70 students) are in high category, and 7 students (10% of 70 students) are in very high category.

4. The Effect of Family Harmony on Students Learning Outcomes in Mathematics Subject

Table 1. Results of Family Harmony Simple Regression Test on Students' Mathematics Learning Outcomes

Coefficients[a]					
Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	**Std. Error**	**Beta**		
1 (Constant)	23.489	6.130		3.832	.000
Family harmony	.582	.066	.729	8.790	.000
a. Dependent Variable: Mathematics learning outcomes					

In the calculation results of simple linear regression analysis on the family harmony variable on the mathematics learning outcomes, the value sig. $= 0,000$ and value t_{count} of 8,790 is obtained, while the known value t_{table} is 1,996. Because of the value Sig. $0,000 < 0,05$ and value t_{count} $8,790 > t_{table}$ 1,996 H_0 is rejected. This shows that there is a significant effect of family harmony on student learning outcomes in mathematics. It can be concluded that the better the family harmony, the higher the learning outcomes of mathematics. On the other hand, the lower the family harmony, the lower the mathematics learning outcomes. This is in line with the opinion of Jamil and Azra (2019), who say that harmonious and caring family conditions will encourage children to study hard, which will ultimately achieve optimal learning outcomes. While the family condition is less harmonious and does not get attention from parents who are less supportive of student learning outcomes, it is not realized.

The results of this study are in accordance with what was stated by Slameto that the harmony of a family depends on the family environment itself. The family environment is the main environment that determines student learning success (Muchtar, Darwis, & Muhammad, 2013).

5. The Effect of School Environment on Students Learning Outcomes in Mathematics Subject

Table 2. School Environment Simple Regression Test Results on Outcomes Mathematics Learning

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.914	6.689		4.173	.000
	School environment	.524	.071	.667	7.385	.000
a. Dependent Variable: Mathematics learning outcomes						

In the simple linear regression analysis results on the school environment variable on mathematics learning outcomes, the value sig. 0,000 and value t_{count} is 7.385, while the known value t_{table} is 1.996. Because of the value Sig. 0,000 < 0,05 and value t_{count} 7,835 > t_{table} 1,996 H_0 is rejected. This shows that there is a significant influence of the school environment on student learning outcomes in mathematics. It can be concluded that the higher the school environment, the higher the mathematics learning outcomes will be. Conversely, the lower the school environment, the mathematics learning outcomes will decrease. This is in line with what was stated by Yana and Jayanti (2014) that a comfortable and pleasant school environment for learning will greatly influence the learning outcomes obtained by students as long as they attend lessons at school.

The results of this study are evidenced by previous research conducted by Martina (2019) that the school environment affects learning outcomes, the better the school environment, the better student learning outcomes. Research conducted by Hajar (2017) examines the influence of the school environment on student achievement, and it is concluded that the significance level of 5% evidences the magnitude of the school environment's contribution to student achievement.

There is a positive relationship between the school environment and academic achievement (Byers, Mahat, Liu, Knock, & Imms, 2018; Harinarayanan & Pazhanivelu, 2018). The students in senior high schools with a pleasant physical environment perform better than those where the learning environment is not conducive. Based on the empirical evidence, adequate school facilities provide a positive educational climate suitable for student

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learning (Baafi, 2020). Also, there is a significant influence between the school environment and students' learning outcomes (Asrin, Fitria, & Eddy, 2021; Kurniawan, Effendi, & Dwita, 2018). The school environment consists of physical and non-physical environments. Teachers must create an environment that fosters the development of student education. The physical environment includes the room where learning takes place, classrooms, laboratory rooms, multipurpose rooms/halls (Asrin, Fitria, & Eddy, 2021).

6. The Effect of Family Harmony and School Environment on Students Learning Outcomes in Mathematics Subject

Table 3. Test Results of the Effect of Family Harmony and Environment School on Students' Mathematics Learning Outcomes

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5540.423	2	2770.212	46.561	.000[b]
Residual	3986.277	67	59.497		
Total	9526.700	69			
a. Dependent Variable: Mathematics learning outcomes					
b. Predictors: (Constant), School environment, family harmony					

In the calculation results of multiple regression analysis on the variables of family harmony and school environment on mathematics learning outcomes obtained Sig. 0.000 and the F_count value is 46.561, while the F-table value is known to be 3.11. This shows that the value of Sig. 0.000 < 0.05 and the value of F_count 46.561 > F_table 3.13, which means that there is a joint or simultaneous influence between family harmony and the school environment on mathematics learning outcomes. It can be concluded that family harmony and the school environment will affect student learning success. This is supported by Slameto's opinion that the harmony of a family depends on the family environment itself. The family environment is the main environment that determines student learning success (Muchtar, Darwis, & Muhammad, 2013). This is also supported by Yana and Jayanti (2014) that a comfortable and pleasant school environment for learning will significantly influence the learning outcomes obtained by students as long as they attend lessons at school. Family harmony is one of the important factors in helping student achievement because many students are raised in less harmonious families (Muslih, 2021). The higher the family harmony, the higher the students learning achievement (Syarif & Taek, 2020). Sitepu (2018) also found a

relationship between family harmony and student learning outcomes. Students will be more focused on learning with the support of the family so that student learning outcomes can be achieved well.

Besides, La Kalamu (2018) stated there was a direct positive influence of the school environment on mathematics learning outcomes. This showed that the more conducive the school environment would directly improve students' mathematics learning outcomes. The learning process can run effectively if the learning environment supports the learning process (Munawaroh, 2017).

CONCLUSION

Based on the study results, it was found that there is a positive and significant effect of family harmony on student learning outcomes in mathematics class VII SMP Negeri 2 Tinambung. The school environment has a positive and significant influence on student learning outcomes in mathematics class VII SMP Negeri 2 Tinambung. There is a positive and significant effect of family harmony and the school environment on student learning outcomes in mathematics for class VII SMP Negeri 2 Tinambung.

Efforts should be made to harmonize families by conducting joint activities with all family members, love each other, create a peaceful home atmosphere, build good and open interaction and communication between family members so that it is possible for children to get a good atmosphere in learning in order to achieve better learning outcomes. Parents should always guide and direct their children in learning activities to improve student learning outcomes. Also, by knowing the school environment as one of the factors that influence student learning outcomes, especially in mathematics, the school may be able to complete school facilities, teacher teaching methods, teacher-student relationships, and things that can create a school environment so that it can improve student learning outcomes, especially in mathematics subjects.

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