



Differences in Student Mathematics Learning Achievement Based on Parenting Patterns of Parents of Students Class VIII SMP Negeri 3 Wundulako

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Abstract

The purpose of this study was to determine: To determine students' learning achievement in mathematics based on parenting styles of students at SMP Negeri 3 Wundulako and to find out the difference in students' learning achievement in mathematics based on parenting styles at SMP Negeri 3 Wundulako. The population in this study were all students of class VIII SMP Negeri 3 Wundulako, totaling 47 students divided into 2 classes, namely VIII A and VIII. This study uses descriptive quantitative research, where the researchers used descriptive methods with quantitative approaches. The results showed that: Differences in students' learning achievement in mathematics based on parenting styles of class VIII students at SMP Negeri 3 Wundulako.

Keywords: *Mathematics, learning achievement, parenting style*

A. Introduction

Education is basically a conscious effort to develop the potential of human resources by encouraging and facilitating their learning activities. In detail, in RI Law Number 20 of 2003 concerning the National Education System Chapter 1 Article 1 education is defined as a

conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by himself, society, nation and state (Achadi, 2018; Aprizal et al., 2016; Budiarti et al., 2017; Sakir, 2016; Setrianus & Padang, 2017).

In essence, education is created in a formal situation in school environment through learning activities that involve teacher and student interactions in the classroom. Mathematics is a compulsory subject at every level of education but is not easy to learn and becomes an obstacle for students because of the abstract nature of mathematics studies (Farman et al., 2019; Fuadiah, 2016). Mathematics is considered a difficult subject to understand because it contains many different symbols and formulas. Mathematical material is interrelated between one material and the next material so that if students do not understand the initial concept, students will be hampered in solving problems in the next material (Hidajat, 2018). In fact, it is not uncommon for learning activities in mathematics classes to only focus on aspects of remembering without paying attention to their relationship with the family environment and in everyday life (Farman et al., 2021). The final condition of the learning activities can affect the low learning outcomes of students (Nurhandita et al., 2021).

Based on the initial interview conducted by the researcher to one of the mathematics teachers at SMP Negeri 3 Wundulako, there are several factors that cause differences in student learning achievement in mathematics, including student interest in learning, student learning independence, student motivation, and parenting styles. Some parenting behaviors that can make student achievement low, are parents who pay less attention to their children in the form children's opinions. Therefore, parenting plays an important role in improving children's learning achievement.

Slameto (2013), argues that the family is the first and foremost educational institution (Chotimah et al., 2018; Febianti & Joharudin, 2018; Pratiwi, 2017; Rahmawati et al., 2018; Wahy, 2012). A healthy family, meaning to educate in small sizes, but determines the quality of education in large sizes, namely the education of the nation and state. From this opinion, it can be concluded that the importance of pattern parenting in education. Where parenting patterns greatly affect student achievement in making children creative and talented. Improper application of parenting patterns can be caused by several factors, namely: 1) lack of parental education; 2) environment; 3) culture. Therefore, how important is the parenting style for children. On the other hand, the application of the right parenting style for children, besides being able to shape children into independent and responsible souls, can also increase the achievements of their children. Relevant achievements in this case is student learning achievement.

This research is supported by previous research, namely (Lestari, 2013) with the research title "The Relationship between Parenting Parenting Patterns with Student Achievement Concentration Patiseri SMK Negeri 1 Sewon Bantul", concluded that warm acceptance from parents, expressions of affection, determination clear standards of behavior and respect from parents, is a form of parental attention to their children. All of these have a very large role in the personality and character of children, so that they can affect children's learning achievement. The purpose of this study was to determine students' learning achievement in mathematics based on parenting at SMP Negeri 3 and to find out whether there were differences in students' mathematics learning achievement based on parenting styles at SMP Negeri 3 Wundulako. The benefits of this research are theoretically in general, the results of the research are expected to provide input on differences in learning achievement in mathematics based on parenting styles and provide information to students about the importance of the role of parents towards children, so that they are expected to respect and respect parents more.

Based on the problems contained in the background that occurred at SMP Negeri 3 Wundulako, researchers were interested in conducting research with the title "Differences in Students' Mathematics Learning Achievement Based on Parenting Patterns for Class VIII Students of SMP Negeri 3 Wundulako".

B. Methodology

This study uses descriptive quantitative research, where researchers use descriptive methods with a quantitative approach.

This research was carried out in class VIII of SMP Negeri 3 Wundulako in the even semester of the 2017/2018 Academic Year. The population in this study was all class VIII students of SMP Negeri 3 21 Wundulako, totaling 47 students divided into 2 classes, namely VIII A and VIII B.

Data collection techniques are the most strategic step in research, because the main purpose of research is to obtain data according to (Sugiyono, 2017). In this study, the data collection method used was a questionnaire or questionnaire and documentation.

The instrument used to obtain data in this study, to obtain data from the variables studied, a questionnaire or questionnaire instrument was used, namely the Student Parenting Parenting Pattern Instrument in Mathematics. There are two types of data in this study, namely the primary data from this study in the form of questionnaire results on parenting patterns. While the secondary data in this study was data on the number of class VIII students of SMP Negeri 3 Wundulako.

C. Findings and Discussion

This research was conducted to find out "The Differences in Students' Mathematics Learning Achievement Based on Parenting Patterns for Class VIII Students of SMP Negeri 3 Wundulako. From the results of data analysis using descriptive statistics and inferential statistics, the research results will be described as follows.

Data were obtained by distributing questionnaires to students who became respondents. Questionnaires were given to respondents totaling 47 students. Variable parenting styles were measured through 31 questions. Categories were based on parenting experienced by students. Authoritative parenting and permissive parenting were compared for each respondent. The highest score between the three parenting patterns indicated the parenting experienced by students. In appendix 7 page 74 shows the authoritarian parenting pattern as many as 18 students, the parenting pattern authoritative parents as many as 20 students, and parenting permissive parents as many as 9 students. The data shows that most of the students of SMP Negeri 3 Wundulako experience authoritative parenting.

Data on students' mathematics learning achievement were taken from the results of the Final Semester Examination (UAS) given by the subject teacher. Authoritarian, authoritative parenting, and permissive parenting. Furthermore, it can be seen in table 1.1 below:

Tabel 1. Results of Descriptive Analysis of Students' Mathematics Learning Achievemen Based on Parenting Students

Descriptive Analysis	Authoritarian	Authoritat ive	Permissive
N	18	20	9
Maximum Score	88	94	82
Minimum Score	60	64	50
Mean(Average)	73,22	80,8	68
Standard Deviation	6,933	8,98	10,198
Variance	48,07	80,6	104

Based on table 1 shows the highest score achieved is 94 and the lowest score is 50. The authoritative parenting style has a minimum score of 60 and a maximum score of 88. The average learning achievement score is 73.22 and the standard deviation is 6,933 and the variance is 48.07. The authoritative parenting style has a minimum score of 64 and a maximum score of 94. The average learning achievement score is 80, 8 and a standard deviation of 8.98 and a variance of 80.6. Permissive parenting has a minimum score of 50 and a maximum score of 82. The average learning achievement score is 68 and the standard deviation is 10.198 and the variance is 104.

Tabel 2. Learning Achievement Criteria

Types of Parenting	Learning Achievement						Information
	Tall		Currently		Low		
	$X \geq 79,33$		$64,67 \leq X < 79,33$		$X < 64,67$		
	F	%	F	%	F	%	
Parenting style old authoritarian	8	44%	9	50%	1	6%	100%
Parenting style authoritative old	15	75%	5	25%	0	0%	100%
Parenting style permissive old	2	22%	5	56%	2	22%	100%

Based on table 1.2, it shows that learning achievement in authoritarian parenting is on the high criteria as many as 8 students (44%), the medium criteria as many as 9 students (50%), and the low criteria as many as 1 student (6%). Authoritative parenting pattern with high criteria as many as 15 students (75%), moderate criteria as many as 5 students (25%), and does not have low criteria. In the pattern of permissive parenting 42 students who are on the high criteria are 2 students (22%), the medium criteria are 5 students (56%), and the low criteria are 2 students (22%). So it can be concluded that, learning achievement in authoritative parenting is in the high criteria and for the other two parenting styles, authoritarian parenting and permissive parenting, is in moderate criteria.

This test was conducted to test whether the three types of parenting were normally distributed or not. In this case, the researcher uses the normality test kolmogorov-Smirnov with the provisions of a test is said to be normal if the significance level is 0.05, whereas if the significance level is <0.05 then the distribution is said to be abnormal.

Table 3. Normality Analysis of Students' Mathematics Learning Achievements Based on Authoritarian, Authoritative, and Permissive Parenting Patterns

		Authoritarian	Authoritative	Permissive
N		18	20	9
	Mean	73.22	80.80	68.00
Normal Parameters ^{a,b}	Std.Deviation	6.933	8.977	10.198
The Most Extreme Difference	Absolute	0.154	0.119	0.137
	Positive	0.126	0.087	0.125
	Negative	-0.154	-0.119	-0.137
Kolmogorov-SmirnovZ		0.655	0.531	0.412
Asymp.Sig.(2-tailed)		0.784	0.940	0.996

Based on table 4 on the authoritarian parenting pattern obtained a significant level = 0.05 and n = 18, D = 0.154 and D Table = 0.309, the authoritative parenting pattern obtained a significant level = 0.05 and n = 20, D = 0.119 and DTable = 0.294, and permissive parenting pattern obtained significant level = 0.05 and n = 9, D = 0.137 and DTable = 0.430. This shows that D D Table can be concluded that the data on students' mathematics learning achievement based on three types of parenting styles of VIII grade students of SMP Negeri 3 Wundulako is normally distributed.

Table 4. ANOVA between Students' Mathematics Learning Achievements Based on Authoritarian, Authoritative, and Permissive Parenting

	Number of Squares	df	Square Average	F	Sig.
Between groups	1161.306	2	580.653	8.03	0.001
In Group	3180.311	44	72.280	3	
Total	4341.617	46			

Based on 4.4, it shows that SPSS output gives a calculated F value of 8.033 and a sig value of 0.001. While the price of the F table can be seen in the distribution of the value of the F table attached with a 5% error degree ($\alpha = 0.05$) is 3.21. From the SPSS output table above, it shows that the value of Fcount (8.033) > Ftable (3.21) and calculated sig (0.01) < sig is determined (0.05), so H0 is rejected and H1 is accepted. These results can be concluded that there are differences in the mathematics learning achievement of students who experience authoritarian parenting, authoritative parenting, and permissive parenting. So parenting affects student achievement.

Table 5. Advanced Test With Multiple Comparison or Difference Scheffe

(I) Parenting	(J) Parenting	Difference Mean (I-J)	Std.Error	Sig.	95% Trust Interval	
					Lower limit	Upper limit
authoritarian	authoritative	-7,578*	2,762	,031	-14,58	-,58
	permissive	5,222	3,471	,332	-3,57	14,02
authoritative	authoritarian	7,578*	2,762	,031	,58	14,58
	permissive	12,800*	3,412	,002	4,15	21,45
permissive	authoritarian	-5,222	3,471	,332	-14,02	3,57
	authoritative	-12,800*	3,412	,002	-21,45	-4,15

Based on table 5, Scheffe's results show the difference in the average value of students' mathematics learning achievement in each type of parenting. For students who experience authoritarian parenting and authoritative parenting, the difference in the average value of learning mathematics achievement is 7.578 with a sig of 0.03 and statistically significant ($0.03 < 0.05$), which means that there is a significant difference between the two types of parenting. The difference in the average value of mathematics learning achievement of students who experience authoritative parenting and permissive parenting is 12,800 with a sig of 0.02 and statistically significant ($0.02 < 0.05$), which means that there is a significant difference between the two the type of parenting style. The difference in the average value of mathematics learning achievement of students who have authoritarian parenting and permissive parenting is 5.222 with a sig of 0.332 and statistically significant ($0.332 > 0.005$), which means that there is no significant difference between the two types of parenting. The Based on the results of research on students who experienced authoritarian parenting as many as 18 students, the minimum score for students' mathematics learning achievement was 60 with a maximum score of 88. The average score of students' mathematics learning achievement was 73.22 and the standard deviation was 6.933 and the variance was 48.07. Mathematics learning achievement of students in authoritarian parenting is in high criteria as many as 8 students (44%), moderate criteria as many as 9 students (50%), and at low criteria as many as 1 student (6%). So it can be concluded that most of the mathematics learning achievements of students who experience authoritarian parenting are in moderate criteria.

The results showed that there were 20 students who experienced authoritative parenting with a minimum score of 64 students' mathematics learning achievement and a maximum score of 94. The average score of students' mathematics learning achievement was 80.8 and the standard deviation was 8.98 and the variance was 80. ,6. Mathematics learning achievement of students in authoritative parenting style is in high criteria as many as 15 students (75%),

moderate criteria as many as 5 students (25%), and low criteria does not exist (0). So it can be concluded that most of the mathematics learning achievement of students who experience authoritative parenting is in high criteria.

The results showed that there were 9 students who experienced permissive parenting with a minimum score of 50 students' mathematics learning achievement and a maximum score of 82. The average score of students' mathematics learning achievement was 68.0 and the standard deviation was 10.198 and the variance was 104. Achievement students' learning mathematics in permissive parenting patterns were 2 students (22%), moderate criteria were 5 students (56%), and 2 students had low criteria (22%). So it can be concluded that the mathematics learning achievement of students who experience permissive parenting is in the moderate criteria.

From the results of hypothesis testing using one-way analysis of variance with SPSS 20.0 and excel 2007 programs manually, it shows that there is a significant difference between Fcount and Ftable. Where Fcount (8.033) > Ftable 51 (3.21) and sig count (0.001) < sig (0.005) which means hypothesis H0 is rejected and hypothesis H1 is accepted. These results indicate that there are differences in learning achievement in mathematics between students who experience authoritarian parenting, authoritative parenting, and permissive parenting. The further test or post hoc test used was the Scheffe test to show the difference in the average value of students' mathematics learning achievement based on three types of parenting experienced by students. The average value of students' mathematics learning achievement in authoritarian parenting and authoritative parenting has a difference in the average score of 7,578. The difference in the average value of students' mathematics learning achievement in authoritative parenting and permissive parenting of 12,800, and the difference in the average value of students' mathematics learning achievement in authoritarian and permissive parenting is 5,222. This is in accordance with (Novitasari, 2016; Sari et al., 2020) that authoritative parenting styles tend to show extra strict supervision of children's behavior, but they are also responsive, appreciate and respect thoughts, feelings, and include children in decision making, while other parenting styles tend to give a negative relationship. Thus, it can be concluded that there are differences in students' mathematics learning achievement based on parenting styles of VIII grade students of SMP Negeri 3 Wundulako.

D. Conclusion

Based on the results of data processing and discussion in this study, the authors draw the following conclusions: Students' mathematics learning achievement based on authoritarian parenting has an average value of 73.22, a standard deviation of 6.933, and a variance of 48.07. Students' mathematics learning achievement based on authoritative parenting has an average score of 80.80, standard deviation of 8.98, and variance of 80.6. Mathematics learning achievement of students based on permissive parenting has an average score of 68.00, standard deviation of 10.198, and variance of 104. There are differences in student learning achievement in mathematics based on parenting.

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