The Effect of Strict Parenting on Elementary School Students' Interest in Learning Mathematics

Samsul Pahmi[1(✉)], Nanang Priatna[2], Abdul Gofur[3], Andini Hukma Salmin[1], Risa Rahmawati[1], and Sri Wahyuni[1]

[1] Elementary Teacher Education, Nusa Putra University, Sukabumi, Indonesia
{samsul.pahmi,andini,risa.rahmawati,sri.wahyuni}@nusaputra.ac.id
[2] Mathematic Education, Indonesian Education University, Bandung, Indonesia
nanang_priatna@upi.edu
[3] Elementary Teacher Education, University of Education Indonesia (of Affiliation), Sukabumi, Indonesia

Abstract. The high role of parents in influencing students' internal conditions in learning certainly requires special attention. Learning difficulties in mathematics allow parents to apply a strict parenting style. However, parenting errors can actually reduce interest in learning. The application of the strict parenting style is currently widely used by parents to achieve targets, such as getting rankings, so that they can enter the best schools or colleges. However, it seems that this pattern causes violence both physically and verbally, so it is necessary to study whether there is a direct impact on students' interest in learning mathematics. To answer these problems, this study used a survey to as many as 30 fifth grade elementary school students using an instrument containing aspects of control, supervision, demands, interests and the impact felt by students. From the results of the study, it was found that the aspect of parental control had a negative effect on interest, while the aspect of parental supervision and demands had a positive impact, although all aspects did not have a significant impact. From these findings, it can be concluded that strict parenting is not the right parenting style to increase students' interest in learning mathematics. Besides that, this pattern also has an impact on increasing fear and anxiety in students.

Keywords: mathematics · strict parents · primary school · parenting

1 Introduction

Problems in learning mathematics have actually existed since mathematics was taught. The complexity of problems in learning mathematics continues to emerge so that it requires attention in solving it. The primary challenges in learning mathematics are pupils' low interest in the subject [1] and anxiety surrounding the subject [2]. This is of course the main focus on how to make the classroom atmosphere relaxed so that it can help relieve tension in learning and can improve students' mathematics learning

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outcomes [3]. This condition is certainly an expected ideal condition, but in reality it is inversely proportional to the student's interest in mathematics. According to the most recent poll, 82% of kids in grades 7 through 10 reported having arithmetic anxiety. In addition to learning innovations carried out by teachers and educational academics, of course also requires a family environment that supports students' internal aspects in learning mathematics with parenting that is able to support increased interest and motivation to learn.

Expectations about family support in influencing students' internal conditions have become a recent question, regarding what pattern of parenting is the best that can be applied. Historically, the Baumrind theoretical paradigm has guided the majority of studies on parenting style. (1967) which was later concluded by [4]. The scientific and practical soundness of this approach, which defines four types of parenting based on parental engagement and control, is widely acknowledged. The classifications are as follows: (1) democratic (high levels of both elements), (2) permissive (high involvement and low coercion), (3) authoritarian (low involvement and heavy coercion), and (4) negligent (low levels of both) [5, 6]. In other studies, this categorical approach has also been applied, where another proposed typology is that democratic and loving styles are the categories of better parenting [7, 8]. On the other hand, an authoritarian style, especially when accompanied by the use of corporal punishment and excessive parental control, can have negative effects on children and even create a sense of intimidation [9]. The negligent style also has risk factors that show aggressive behavior towards their environmental friends [10].

Recently, the concept of "parenting style" has taken on a new dimension and been more precisely characterized, allowing us to try to understand the potential role that parents may play in the family education environment that has come to be known as the dimensional perspective. This viewpoint explores a variety of facets of the parent-child relationship, including love and communication, as well as affection and shared enjoyment between parent and kid [11, 12]. It also looks at the need for autonomy. In other words, This pattern offers kids the freedom to decide for themselves or select particular behaviors. In addition, from the perspective of this dimension, control factors and attitudes and behaviors that arise related to this dimension may vary. Therefore, it is necessary to make a distinction between behavioral control by establishing rules and monitoring behavior, both from the aspect of age [13, 14] or psychological control.

One of the parenting styles that are not properly applied by parents to their children is parenting which in its implementation is too restrictive and limits the scope of children and spoils children in playing and exploring their world or in other languages called Strict Parents. Strict parents can be said to be overprotective behavior, namely the way parents educate their children by not giving children the opportunity to take care of their own needs, make plans, develop alternatives, make their own decisions and be responsible for their satisfaction [15]. This parenting pattern in several studies is categorized as one of the less appropriate parenting styles to be applied by parents to their children. Parenting which in its implementation is too restrictive and limits the scope of children and spoils children in playing and exploring their world or in other languages is overprotective. However, parenting is certainly one of the main roles in its implementation. Where the role of parents in child care is the first and foremost forum for the growth and development

of children, if the atmosphere in the family is good and pleasant, then children's interest in learning will grow well and if not, it will certainly hinder their development and interest in learning [16].

The internal condition of the child greatly influences the implementation of the learning process [17]. In the implementation of learning activities, a person is motivated to learn because of interest, where this interest becomes the driving force for achieving the planned goals without interest, the learning objectives will not be achieved. An existing interest in a particular subject area is very likely to keep the student's mind so that he can master the lesson. Susanto (2020) revealed that interest is one of the internal factors that has a strong influence [18]. When a student's interest in learning is tightly correlated with their motivation, self-expression, self-concept, genetics, and external or environmental influences. Interest has a significant impact on learning; if the curriculum does not reflect the child's interests, he or she will not take learning seriously. Interest can encourage children to continue learning. Children will be interested and pay more attention to the learning materials they like. Children can continue to learn to develop their interests.

Based on the statement that has been described above according to research that has been done by several researchers. Students' interest in learning has a vital position in the mathematics learning process, so it requires support from various parties who specifically have an important role, including the family. The parenting style that is still widely implemented is the strict parent type. Where this.

pattern has received extensive studies both on behavior and even up to the level of violence that can be caused by children in their environment. However, there has been no detailed research that examines the effect of strict parenting on children's interest in learning mathematics. This is the main basis for this study whether strict parenting has a direct influence on students' interest in learning mathematics at the elementary school level.

2 Method

2.1 Research Design

Descriptive research is the type used in this study with a quantitative approach to analyze existing phenomena with the aim of finding the effect or relationship between strict parents' parenting on students' interest in learning. Surveys were employed as the research approach. In general, the implementation of the survey in this study follows the steps proposed by Hackett which include: problem definition; survey design options; sample selection; questionnaire development; data collection; data analysis and interpretation [19]. While the type of survey design used refers to the cross sectional survey design proposed by Creswell, namely a research design that collects data at one time to the sample [20].

2.2 Population and Samples

The population in this study were all students at a school in Sukabumi regency with a total of 549 students divided into 17 classes. While the sampling was carried out by the

judgment sampling method based on the results of observations with the complexity of the parenting style of students in each class based on interviews with each homeroom teacher. The sample used is a class of 30 students consisting of 20 male students and 10 female students. The selection of the sample also took into account the economic status of the parents of students who were in the upper middle range who had the possibility of spoiling their children where this habit was closely related to strict parenting.

2.3 Data Collection Technique

In this study, the technique used in data collection is using an instrument in the form of a questionnaire. The questionnaire in this study used 5 main indicators. Where the indicators include 1) Aspects of parental control (3 items), 2) Aspects of parental demands (5 items), 3) Aspects of parental supervision (3 items), 4) Aspects of interest in learning mathematics (7 items) as well as a survey related to the impact felt by students (10 items). So that from these indicators there are 28 statement items. Then the next technique is interviews. In this interview technique, the researcher asked questions to the homeroom teacher and students. Teacher interviews were conducted focusing on the character and interests of each student during mathematics learning. While the student interviews focused on how their responses and expectations of the parenting provided by their parents were.

2.4 Data Analysis Technique

In addition to carrying out descriptive analysis for each variable and its aspect, to determine the level of influence and the magnitude of the influence of each aspect on the strict parents variable, multiple regression analysis was carried out to examine the magnitude of the influence of each aspect on the strict parents variable (parental control, demands of parents). Parents and parental supervision) and hypothesis testing on the variable strict parents and students' interest in learning. In general, multiple regression analysis follows the following general formula:

$$Y = a + b1X1 + b2X2 + \ldots bmXn \quad (1)$$

where the hypotheses used are: Ho: Strict parents variable does not have a significant effect on interest in learning student math; H1: Strict parents variable has a significant effect on interest in learning mathematics student by decision making criteria: If the value of sig. > then H0 is accepted; If the value of sig. < then H0 is rejected.

3 Result and Discussion

3.1 Coefficient of Determination

The Coefficient of Determination Test is a further step to determine the percentage on how the independent variable affects the dependent variable and the influence of other factors not examined on the dependent variable.

Table 1. Table Summary

Mo del	R	R Square	Adjusted R Square	*Std. Error of the Estimate*
1	.509a	.259	.173	*.2947806*
a. Predictors: (Constant), A3, A2, A1				

Table 2. Table Coefficients Dependent Variabel

Unstandardized Coefficients		**Standardized Coefficients**			
B	***Std. Error***	***Beta***	***t***	Sig.	
(Constant)	1.290	.339		3.805	*.001*
A1	-.051	.166	-.072	-.306	*.762*
A2	.338	.185	.415	1.829	*.079*
A3	*.179*	*.117*	*.276*	*1.527*	*.139*

In Table 1, the coefficient of determination (R Square) is 0.259 or (25.9%). This shows that the percentage of the influence of each aspect on the variable strict parents parenting (parental control, parental demands and parental supervision) simultaneously has an effect of 25.9% on students' motivation to learn mathematics. From these calculations, it can also be calculated that the strict parenting style has a very small effect, which can be identified that there is still 74.1% of the influence of student interest in learning is influenced by other variables outside the strict parenting style variable.

3.2 Multiple Regression Analysis

In this study, to find out the magnitude of the influence of each aspect of strict parenting on students' interest in learning, it is done through multiple regression analysis, where the aspects that will be analyzed are aspects of parental control, aspects of parental demands and aspects of supervision. Parent.

Based on the regression output table in Table 2, the multiple regression formula can be obtained as follows: Y = 1.290 - 0.051A1 + 0.338A2 + 0.179A3, From the linear regression formula, it can be interpreted into several important parts, namely (Table 3).

3.3 Constant

The constant value is a value that is assumed to be a constant influence which if all independent aspects including aspects of parental control, aspects of parental demands and aspects of parental supervision (A1, A2, A3) are not carried out or have a value of zero (0) then it can be ascertained the value of student interest in learning as the dependent

Table 3. Distribution of aspects of strict parents and students' interest in learning mathematics

Aspect	High	Medium	Low
Control	33.3%	50.0%	16.7%
Demands	40.7%	47.3%	12.0%
Supervision	37.8%	16.7%	45.6%
Average	**37.3%**	**38.0%**	**24.7%**
Interest	17.6%	45.2%	37.1%

variable (Y) is the constant value itself, which is 1.290. This means that students still have an interest in learning even though there is no parental intervention in aspects of strict parenting. This is also supported by the finding that strict parenting.

Number equations consecutively. Equation numbers, within parentheses, are to position flush right, as in (1), using a right tab stop. To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Italicize Roman symbols for quantities and This is also supported by the finding that strict parenting style causes 80% of children from 30 samples to feel depressed.

3.4 Strict Parental Control (A1)

This aspect contains indicators related to the enforcement of regulations for children at home and outside the home; and the firmness of parents in giving punishment to children's violations. The coefficient of parental strict control aspect (A1) is -0.051. This can be interpreted that the A1 aspect has a negative (unfavorable) influence on students' interest in learning. If further analyzed for every one point increase (range of points 1–4), then the dependent variable (interest in learning) will decrease by –0.051. From this coefficient value, it can also be calculated if the value of variable A1 gets a maximum score of 4, then assuming other variables do not support/value 0 (zero) then the value of student learning motivation will decrease to 1,086 (from a max score of 4) which is lower rather than a constant value of 1,290. This is also confirmed by students' opinions regarding the perceived impact of parental control that is too tight, namely 46.7% of students have feelings of fear.

3.5 Aspects of Parental Demands that Are Too High (A2)

In this aspect, the indicators analyzed are related to the setting of targets given to children; giving punishment to children if they do not meet the target; and provide punishment in the form of physical and verbal violence. The coefficient value for the aspect of parental demands that are too high (A2) is 0.338. This can be interpreted that although the child feels high pressure, The A2 component increases interest in learning in a way that is beneficial. Where every one-point increase in A2 aspect (range of points 1–4) then interest in learning (variable Y) will increase by 0.338. From the coefficient value, it can be calculated that if the aspect value of A2 gets a maximum score of 4, assuming

other aspects/variables do not support/value 0 (zero) it will increase the value of interest in learning mathematics by 1,352, or if totaled with a constant value, the value of interest in learning mathematics will increase. Students will increase to 2,642 (from max score of 4).

Student responses regarding the impact on this aspect are the emergence of fear because they cannot meet the targets desired by their parents and fear of being punished. For these two indicators, the average number of students who experience fear is 56.7%. However, it turns out that in addition to punishment, parents also set a reward if the child is able to achieve the set target. This has a high probability of being one of the factors that influence the aspect of parental demands (A2) on students' interest in learning mathematics.

3.6 Aspects of Strict Supervision (A3)

In this aspect, more emphasis is placed on indicators of the possessive level of parents to children. The coefficient value for the aspect of strict supervision (A3) is 0.179. This can be interpreted that the A3 aspect has a positive influence on students' interest in learning mathematics. Where every one-point increase in the A3 aspect (range of points 1–4), the students' interest in learning mathematics will increase by 0.179. From the value of the A3 coefficient, it can be predicted that if it has a maximum point of 4, it will have an impact of 0.716, or if it is totaled with a constant value, it will produce an interest value of 2,006 (from a max score of 4). Although the A3 aspect has an overall positive impact on interest, there are other impacts that are felt by students, namely anger and laziness due to too high supervision of each activity carried out.

3.7 Hypothesis Testing

If it is seen from the influence value in the linear regression test for each aspect of the strict parent type of input pattern variable on interest in learning mathematics, each aspect has a positive or negative influence. This hypothesis test was conducted to measure whether the value of the influence of each aspect in the regression test had a significance level on students' interest in learning mathematics.

The reference in this test uses Table 2. Judging from the value of sig. For aspects A1, A2 and A3 each has a value of 0.762, 0.079 and 0.139, this means that the overall value of Sig. Aspects on the variable parenting type strict parents (0.762, 0.079 and 0.139) $>$ 0.05 which means accept H0, so it can be concluded that although each aspect has an influence value on students' interest in learning mathematics, but none of the aspects has a significant influence. In contrast, the constant aspect has a significant effect on interest, namely the sig value of $0.001 < 0.05$.

In further evaluation regarding the impact of strict parenting (questionnaire data on the impact of strict parents) which includes fear; spirit; level of difficulty; laziness; learning frequency and interest, in fact found a fairly high response to aspects that inhibit the learning process such as fear, laziness and difficulty in solving problems. This is inversely proportional to aspects of enthusiasm and interest which have low scores (Fig. 1).

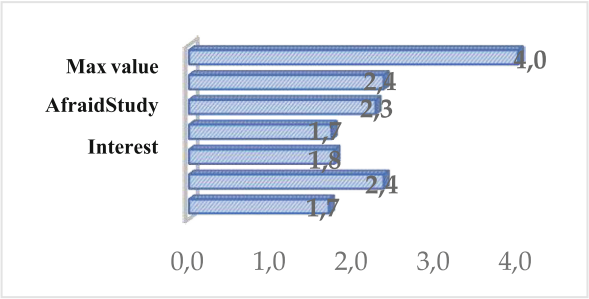

Fig. 1. Distribution of the impact of strict parents on students Some Common Mistakes

It was discovered through open conversations with students with high control and demands will experience excessive fear and difficulty in discussing with their parents the problems they face, so that at a certain stage fear can lead to a sense of laziness in students which has an impact on interest and enthusiasm. Learn it. Furthermore, based on the data from the questionnaire, it was also found that when students cannot discuss with their families, students will be more inclined to discuss problems with friends or teachers, of which 63% of students prefer friends over telling the teacher.

4 Conclusion

From the results of the study, it was found that the aspect of parental control had a negative effect on interest, while the aspect of supervision and strict parental demands had a positive impact even though each aspect did not have a significant influence on students' interest in learning mathematics. From the findings of this study, based on the analysis of the impact felt by students, there were several aspects that were not well felt by the majority of students, including difficulties in communicating and discussing with families related problems encountered at school; excessive fear and anxiety; and feelings of laziness and anger when parental control and supervision is very high. From these findings, it can be generally concluded that strict parenting is not the right parenting style to increase students' interest in learning mathematics. So that parents are expected not to use strict parenting type in raising children. For future research, it is expected to be able to conduct more in-depth studies related to parenting that is suitable to be applied in order to increase student interest in learning.

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