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INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH TECHNOLOGY
CONTRIBUTION OF STUDENTS PERCEPTION ON THE TEACHERS' TEACHING STRATEGIES AND THE PARENTS' CONSENT AND ADVERSITY QUOTIENT TO THE STUDENTS' MATHEMATICS LEARNING OUTCOMES

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ABSTRACT
This study aims to determine the contribution of Adversity Quotient and perceptions on the teachers' teaching strategies and the parents' consent to the students' mathematics learning outcomes. This study utilises a quantitative research methodology implementing the ex-post facto research method as the independent variables are the events that have occurred. The population in this study was mathematics teachers and high school students in Buleleng Regency. A random sampling technique is used to determine the sample of the study. The data collection technique to measure (1) the contribution of Adversity Quotient and perceptions on the teachers' teaching strategies, and (2) the parent's consent are collected through validated and reliable questionnaires. Furthermore, the students' math results are obtained from their daily test results. The collected data were analyzed by using a path analysis technique. The findings conclude that there is a direct relationship between teacher's teaching strategies and the students' mathematics learning outcome by 52.9% and the parents' consent to their children's mathematics learning outcome by 23.3%. The difference of the total percentage in the findings is influenced by other factors which are not included in this study. All of these factors affect student learning outcomes either directly or indirectly.

KEYWORDS: Adversity Quotient, Student Perception, Learning Outcomes.

1. INTRODUCTION
Education is something that must be given to humans. Education as we know it has always focused on formal education, without realizing that education actually takes place in the family. Education is one of the strong foundations as provisions in living life and is one of the pillars that determine the development of the nation. The more successful education system in a country is, it will enlighten and upgrade human's quality which simultaneously affects the nation's development.

Society is the driving force and determinant of the progress of a nation, so that by improving the quality of society through improving the quality of education, this will also have an impact on the progress of a nation itself. Indonesia in its journey always strives to improve the quality of human resources through education in the 12-years learning program. Improving the quality of human beings is one of the hopes of education so as to create a quality Indonesian society where people who have more faith, have noble character, become independent, innovative, creative individuals, produce positive things and are physically and mentally healthy in line with the National Education System as stipulated in the Republic of Indonesia Law No. 20 of 2003 stating the goals of national education.

Education will not run optimally both in Indonesia and in other countries without the role of the relevant parties. Various problems that occur in the world of education ranging from problems of facilities and other supporting quality. To improve the quality of this education, the government has begun to make maximum efforts to fulfill educational facilities. In addition, the government also provides guidance and training for teaching staff.

The factors that influence the success of education are the quality of educators, educational facilities, and students themselves. Firstly, the educators have a very vital role in the success or failure of students in understanding the lesson. Educators must provide a sense of comfort to students in the teaching and learning process instead of giving excessive pressure so that students cannot concentrate when participating in the teaching and learning process at school. They will learn and benefit from the teaching learning activity when they are comfortable with their learning environment. Secondly, the adequate learning facilities are significant to fully support the students to achieve their best. Thirdly, the state of a student's social environment is crucial in the success of students in undergoing education as it will affect how much comfort they are able to feel and show while participating in the teaching and learning activity. The student's social environment comprises the state of the community, teachers and parents.

Parents are the closest social environment to students academically, emotionally and socially. Their role is not only to meet the needs of students, but they motivate and educate the students at the same time. The education starts from home where the parents work simultaneously with school to hand-in-hand monitor and support the student's learning. A synergy between home and school is vital to the success of student education.

Family conditions that are less harmonious will have an impact on the psychological state of students. Many parents today feel that materiality comes first. They only focus on providing material without providing motivation. In addition, many parents choose a career so that they forget their child's priorities. It is undeniable that the time for children from parents is decreasing, the interaction between parents and children will also automatically decrease. This very important role of parents is shown by Mawarsih et al. (2013) research entitled " Pengaruh Perhatian Orang Tua Dan Motivasi Belajar Terhadap Prestasi Belajar Siswa SMA Negeri Jumapolo " which shows that student achievement is strongly influenced by parental attention to students.

Student achievement is closely related to the learning process at school. Teachers have a very vital role in the success of students in achieving their learning goals at school. The success of students in achieving their learning goals at school depends on the way the teacher conveys the material, the teacher's understanding of the material presented and the skills of the teacher himself. The learning process of children at school is influenced by teacher factors. The success of students in the process of obtaining maximum learning outcomes is also influenced by factors from within the students themselves, including: student achievement motivation and adversity quotient.

Adversity Quotient has a significant influence on student learning outcomes according to Bambang Suryadi & Teguh Iman Santoso research findings discussing Self-Efficacy, Adversity Quotient, and Students' Achievement in Mathematics. Their findings show that self-efficacy and Adversity Quotient have significant influence on the mathematics students' academic achievement. Moreover, AQ also affects the level of students' mathematical creative reasoning abilities, which is shown by Hidayat et al (2018)'s research entitled Improving students' creative mathematical reasoning abilities through Adversity Quotient and argument driven inquiry learning.

Students' understanding on the topic being taught in class is superficial. There has always been a little time at school to cover curriculum topics. In many occasions, the students are let to do self study at home without thorough assistance resulting in students' lack of comprehension on the topic. The students will have another challenge at home when their parents are not available to offer their support. This will cause students to have shallow understanding on the topic and they will not be able to reach the learning outcomes.

The paradigm that occurs in society is that children's education is entirely the responsibility of the teacher. In fact, many people blame teachers for their children's learning outcomes. Parents often unwittingly provide "comfort" to children, where if the tasks given are many, they will blame the teacher. This is not a support for the child but a cause for the child to be spoiled. Considering that there is such a view, a study is needed to show that children's success in education does not only depend on the teacher. The role of teachers, parents and students themselves will affect the success of students in the teaching and learning process. Teachers in educating students through the learning process at school, parents in educating children at home and the students themselves in participating in teaching and learning activities.

2. MATERIALS AND METHODS

Materials

How Teachers Teach Students
Teaching is an activity in organizing a learning environment that provides opportunities for students to be able to learn efficiently (Hamalik, 1992). According to Sudjana (1989) teaching is defined as an activity to guide students in learning, organize and organize the environment around students so as to increase student motivation. The way teachers teach students according to students will certainly have different assessments between students from one another. According to Surakhmad (Suryosubroto, 2002) the way the teacher teaches students is the method used by the teacher in carrying out the teaching and learning process or about the technicalities of a lesson given to students at school.

The way teachers teach students can be defined as all efforts made by teachers in the teaching and learning process in schools with the hope of achieving student learning goals. All efforts made by educators can be in the form of a path, rule, or system used in organizing or regulating the teaching and learning process as well as content knowledge and teacher skills so that they can run effectively and efficiently to achieve learning objectives in the form of good learning achievement.

Student Perception
Perception is a process that involves the five senses to be able to select, store, process which information is then interpreted by each individual (Wagner & Hollenbeck, 1995). Perception is a process that is initiated by the five senses which is then interpreted by the individual about what is received by the five senses (Walgito, 1990). Based on the explanation, it can be concluded that students' perceptions are interpretations or giving meanings by each student to the information collected through the five senses of each individual.

Students' Perceptions of How Teachers Teach Students
Student perception is the interpretation or giving of meaning by each student to the information collected through the five senses of each individual. While the way of teaching can be defined as all efforts and alternatives made by the teacher in the teaching and learning process with the hope of achieving student learning goals. All efforts made by educators can be in the form of a path, rule, or system used in organizing or regulating the teaching and learning process as well as content knowledge and teacher skills so that they can run effectively and efficiently to achieve learning objectives in the form of good learning achievement. Thus, it is concluded that students' perceptions of the way teachers teach students are students' interpretations of information collected through their five senses regarding a path, rule or system used by educators in organizing the teaching and learning process in the classroom and students' interpretation of teacher knowledge and teacher skills in managing class.

Parents' Attention
Parent's attention is the activity of parents who are focused on paying attention to children's activities in the learning process. The parent's attention where parents provide supervision and guidance as an effort from parents in meeting the needs and providing motivation to students so that they can achieve their goals optimally. Parents in this case can be fathers, mothers or guardians in the family who are responsible for the education of their children. A child must be given attention, affection both materially and not (Mawarsih, et al. 2013). The success of a child in achieving his learning goals is also influenced by the attitude of parents to children. According to Slameto (2003), if parents are indifferent or do not pay attention to the learning needs of their children, it will certainly have an impact on children who do not know or are less successful in learning. The success of a child's learning is also influenced by the condition of the child himself. Children from a healthy home environment with a complete and loving family atmosphere and parents who provide more motivation to them will be more likely to have good mental and emotional conditions (Dalyono, 2005).

The attention given by parents in the child's learning process can be seen through the way parents treat children at home, parents fulfill children's learning needs, provide learning motivation for children, supervise children's learning activities at home and guide children in learning at home. Everything is related to each other to achieve children's learning success. For example, even though parents fulfill all the needs of their children in learning, but

the parents do not guide or supervise their children's learning activities at home, the facilities will be wasted. In addition to the facilities that must be met, it is undeniable that the attention and affection of parents in terms of providing motivation, supervising and guiding children in learning is also very important. A sense of comfort, safety in learning and a sense of respect in the family will increase the level of children's learning motivation which has an impact on their achievements.

The attention that parents give to their children is very important, especially in the education of children. In the field of education, attention from parents is needed in the process of children's learning activities at home. Based on the explanations of Dalyono (2009) and Slameto (2003), it is formulated that several forms of parental attention that can support student success in following the teaching and learning process are a) meeting children's learning needs, b) motivating children to learn, c) supervising children's learning activities. at home and d) guiding children in learning at home.

Student Adversity Quotient
Adversity Quotient in this study is in line with Paul G Stolz's definition which defines AQ as intelligence to overcome difficulties. According to Stolz (2005), adversity intelligence is contained in three forms, namely: (1) adversity intelligence as a conceptual framework used to understand and improve all aspects of success, (2) adversity intelligence as a measure to determine a person's reaction to the difficulties he faces, (3) adversity intelligence as a set of tools that have a scientific basis to reconstruct reactions to life's difficulties.

According to Stoltz (Sudarman, 2012), there are 3 types of AQ from each person, namely: quitter, camper, and climber. Students who have low AQ are students who tend to quickly give up on the problems they face. Students with this type are included in the quitter students. Quitter students' perception of mathematics is that mathematics is difficult and difficult to understand. They will choose to stop and despair when they find a slightly challenging question. Students who have moderate AQ are students who are quickly satisfied with their achievements, they do not want to take more risks. Students like this are included in the type of camper. Their perception is that it is most important to pass or advance to a class regardless of high scores. Students with high AQ levels are students who have clear targets. To achieve the goal or target, students will try tenaciously and seriously. They belong to the type of climber.

According to Paul G. Stolz, AQ consists of four dimensions of CO2RE. CO2RE is an acronym for the four dimensions of AQ. These four dimensions determine a person's overall AQ. Control_or_control is the perceived level of control over which a person has more than one adverse event. Control begins with the perception that something, anything can be done. Control is directly related to influence and empowerment in all other dimensions of CO2RE. Without control, hopes and actions will be destroyed, but with control, life can be changed and the goals to be achieved will be realized.

Origin and Ownership has the meaning of the extent to which a person considers himself responsible for improving the situation. Origin has to do with guilt. People who have a low AQ will place guilt on themselves or see that they are the cause (origin) of trouble. Guilt has two important functions, firstly it helps to learn to be better and secondly guilt leads to regret. Reach or achievement is a perception of how big or wide the event will be.

Responses with low AQ make problems affect someone. The lower the R score, the more likely it is to consider the event a disaster, if this is allowed to spread it will have an impact on a person's happiness and peace of mind. On the other hand, the higher the R score, the greater the probability of limiting the occurrence of the problem.

Endurance or 'endurance' is the perception of the time at which good or bad events and their consequences will last or end. The lower the E score, the greater the assumption that the difficulty/cause will last a long time. Labeling a loser, stupid and people like to procrastinate - procrastination is permanent, the consequences of which are not immediately visible but very dangerous. Endurance of a person in seeing a problem is divided into two things, namely someone who sees it in terms of effort and from ability. If you see ability as the cause of failure, you will tend to give up, while if you see the cause of failure as a lack of effort, the person will tend to persist.

The success factors have a scientific basis which is influenced by the ability to control and how to respond to difficulties. According to Stolz, PG (2005;93) the factors that influence a person to survive are as follows: 1)

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Competitiveness, 2) Productivity, 3) Creativity, 4) Motivation, 5) Taking Risks, 6) Improvement, 7) Perseverance and 8) Study. According to Carol Dweck (Stolz, P.G, 2005) proves that children with a pessimistic response to the difficulties they face will not learn and excel when compared to children who have more optimistic patterns. The success of students in the teaching and learning process, especially in the field of mathematics, certainly cannot be separated from the efforts of students. Student learning achievement will be achieved well if it is followed by the efforts of the students. The existence of students' efforts that never give up will help students to achieve better learning outcomes.

Student Mathematics Learning Outcomes

Learning outcomes are obtained as a result of the teaching and learning process carried out within a certain period of time. Learning outcomes are changes that are obtained by students after going through the teaching and learning process. Sudjana (2001) suggests that learning outcomes are abilities possessed by students after going through learning events. The results of learning events can appear in various types of changes in a person's behavior.

Learning outcomes are influenced by internal and external factors. Internal factors are factors that come from within the students, while external factors are factors that come from outside the students themselves. Internal factors in this case are about the state of students such as physiological factors and psychological factors of students. While external factors include environmental factors, instruments, models and teaching styles of teachers. Teachers are also one of the external factors that affect the learning outcomes of students.

The author concludes that learning outcomes are the results or changes obtained by students both in the affective, psychomotor or cognitive domains as a result of students' efforts in the teaching and learning process which are assessed through learning outcomes tests where the results are expressed in symbols, letters or numbers as evidence of success. have been achieved by students. In real terms, the results of learning mathematics can be seen from the test scores obtained. The test referred to in this case is a learning outcome test that is used to measure the cognitive domain at the level of knowledge, understanding and application.

Methods

This research can be classified as ex-post facto research because this study aims to determine the possibility of a correlation between two or more variables without any manipulation. Ex-post facto research is based on events that have occurred and then pulled back to obtain the factors that cause the relationship that occurred. Ex-post facto is defined as research that has the aim of finding out the causes that could lead to events that have occurred (Sugiyono, 2010: 7).

The research design uses a causal comparative design. According to Fraenkel, et al (2012), causal comparative research is research that investigates the causal relationship of several variables based on observations and sees the relationship of the results obtained and their causes. As a result, research is seen together with correlational research as a form of association research because both describe existing conditions. This study will compare between two or more variables. The design in his research can be seen in Figure 1.
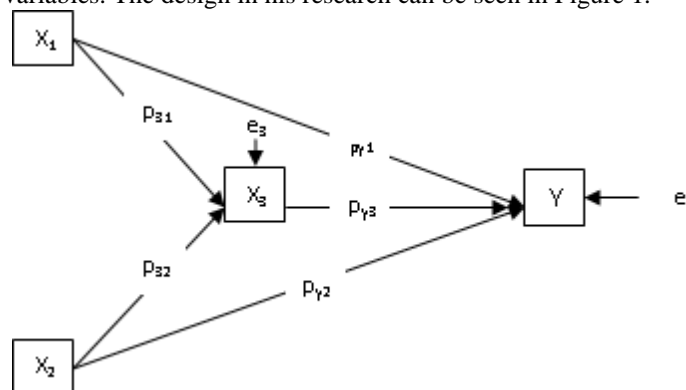

Figure 1. Path Diagram of How Teachers Teach Students (X1), Parents' Attention (X2), Adversity Quotient (X3) and Student Mathematics Learning Outcomes (Y).

The population in this study were mathematics teachers and high school students in Buleleng Regency. Samples were taken proportionally, carried out by taking subjects from each determined area in balance with the number of subjects in each strata or region. In this study, the high school area was divided into 2 groups which are city schools and sub-district schools. Based on the random sampling technique, the samples in this study were 2 city schools and 4 sub-district schools. From each school, one class is chosen randomly, this is because each class in each school is heterogeneous.

This study aims to investigate the effect of three independent variables which are the teachers' teaching methodology, parents' attention and Adversity Quotient on one dependent variable (dependent) on students' mathematics learning outcomes.

The steps of the research procedure carried out by researchers to obtain maximum results are as follows:
1. Define and determine the population and research sample
2. Prepare a questionnaire on how teachers teach students, parents' attention and Adversity Quotient as an instrument in this study
3. Conducting guidance related to instruments that have been prepared to lecturers
4. Conducting instrument content validity by experts
5. Conduct trials on the research instruments used in determining the level of validity and reliability of the instruments that have been prepared
6. Rearrange the research instrument
7. Analyze the data quantitatively
8. Analyze research data analysis qualitatively
9. Compile research results

The data collection method used in this study was to provide questionnaires and tests. Collecting data to test the hypothesis of how teachers teach students, parents' attention seen from students' perceptions and students' Adversity Quotient are collected using questionnaires. The questionnaire contains questions related to the indicators in each data which will be completed by the respondents (students). The data collection for the variables of mathematics learning outcomes is collected using student tests. The test is the result of students' daily tests.

Instrument is a tool used to collect data in the field as needed. There are two instruments used in this study. First, the questionnaires used to measure how teachers teach students, parents' attention seen from students' perceptions and students' Adversity Quotient. Secondly, student's daily test results to measure the student's mathematics learning outcomes.

Content validity is used to determine the reliability of the questionnaire written with the study of research theory. The assessors in this study were two experts who have specialists in their fields. Based on the results of the judges' test, the proposed questionnaire needed to be revised considering the assessor's input. As the questionnaire was revised and ready, it was then distributed to the samples to test the validity of each point in the questionnaire.

Validity and reliability are one of the influential aspects in this study. Validity provides a true picture which refers to the suitability and accuracy of the researcher to measure what he wants to measure. To test the validity of the measuring instrument, first, the correlation between the parts of the measuring instrument as a whole is sought by correlating each item of the measuring instrument with the total score which is the sum of each item score using the Carl Pearson product moment formula.

$$r_{xy} = \frac{N\sum XY - \left(\sum X\right)\left(\sum Y\right)}{\sqrt{\left(N\sum X^2 - \left(\sum X\right)^2\right)\left(N\sum Y^2 - \left(\sum Y\right)^2\right)}}$$ (Candiasa, 2010a:116)

The validity or invalidity of the items is by comparing the product moment correlation coefficient from the calculation of the value and the significance level of 5%. So, if the item concerned is declared valid, it is because there is a significant correlation between the item scores and the total score.

After testing, the findings are as follows: (1) there were 15 valid statements and 1 invalid statement in the questionnaire about how the teacher teaches students, (2) there were 15 valid statements and 1 invalid statement in the parental attention questionnaire, and (3) there were 19 valid statements and 1 valid statement in the Adversity Quotient questionnaire.

In research, reliability is the level of consistency of the measurement results on a test after being repeated on the subject and under the same conditions. According to Candiasa (2010a), the reliability of an instrument is seen from the consistency of the results shown by the instrument. Instruments with high reliability will give relatively the same results, even though the instruments are used in different periods of time. The higher the correlation coefficient, the more reliable the instrument is because it can provide consistent results for relatively the same measurements.
To measure the reliability of the instrument used Cronbach's Alpha formula:

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum \sigma_i}{\sigma_1^{\,2}} \right)$$
(Candiasa,2010a:120)

From the results of the calculation with the completion steps, for the questionnaire of how the teacher teaches students, the reliability coefficient is 0.6528 showing instrument high reliability. The parental attention questionnaire has a reliability coefficient of 0.912 showing instrument high reliability, and the Adversity Quotient questionnaire has a reliability coefficient of 0.6663 showing instrument high reliability. From the results of the validity and reliability test, it is concluded that the following questionnaire is valid and reliable. Thus, the bias instrument was used for data collection.

This data analysis was carried out to classify data both based on respondents and variables which were then processed for later calculations. The results of this calculation are used to answer the formulation of the problem and test the hypotheses that have been obtained from this study. This research uses descriptive analysis and path analysis.

Descriptive analysis
Description statistical analysis is a statistical test used to analyze data by describing or describing the data that has been collected as it is, not to make conclusions that apply to the public or generalizations (Sugiyono, 2013:206). Descriptive analysis is used to describe the contribution of the way teachers teach, parents' attention and the Adversity Quotient of students to students' mathematics learning outcomes.

Path Analysis
This study examines the contribution of the influence of two or more variables on other variables, so path analysis is used as a data analysis technique to test hypotheses. Path analysis is used to analyze complex relationships between variables which cannot be done using multiple regression. Where for complex relationships there are more than one dependent variable, several series of regression equations are needed (Gudono, 2017).
Based on the path diagram in Figure 1, the structural equation is formulated as follows: $Y = p_{y1} + p_{y2} + p_{y3} + e$

3. RESULTS AND DISCUSSION
Prerequisite tests were analyzed to describe the results of data analysis of respondents' answers which consisted of tests for normality of data distribution, linearity, heteroscedasticity, autocorrelation, and multicollinearity. Based on the results of the prerequisite test analysis, it was obtained that the data were normal, there was a linear relationship, the variance was constant, all independent variables did not experience cases of multicollinearity and there were no cases of autocorrelation.

Structural Equation I
The results of testing the variable data on the way teachers teach students and parents' attention to the adversity quotient are presented in Table 1.

Table 1. Structural Equation I

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	505.682	2	252.841	8.347	.002[a]
	Residual	636.152	202	30.293		
	Total	1141.833	204			

In Table 1, it can be seen that the value of sig is $0.002 < 0.05$ so that it accepts H0. So, it can be concluded that the structural equation I is significant or simultaneously there is a relationship between the way teachers teach students and parents' attention to the adversity quotient. Furthermore, the magnitude of the path coefficient can be observed in Table 2 below.

Tabel 2. Koefisien Jalur Model Struktural I

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-23.434	21.672		-1.081	.292
Orang Tua	.497	.386	.233	2.385	.013
Guru	1.092	.375	.529	2.914	.008

Referring to the output in Table 4.8, the significant value of the variable how the teacher teaches students (X1) = 0.008 and parental attention (X2) = 0.013, both of which are less than 0.05. So, it can be partially concluded that the X1 and X2 variables have a significant effect on the adversity quotient (X3). The magnitude of the positive contribution of the X1 variable to X3 is 0.529 or 52.9%. On the other hand, the positive contribution of the X2 variable to X3 is 0.233 or 23.3%

In accordance with the results of the analysis, the multiple linear regression equation is as follows: . So that the path diagram of the structural model I looks like Figure 2.
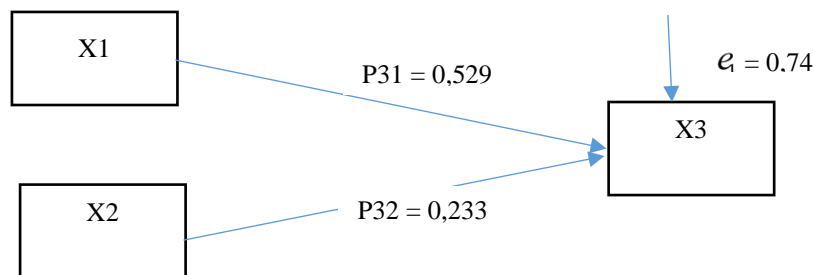

Figure 2 Structural Model I

Structural Equation II
The results of testing the variable data on the way teachers teach students, parents' attention and the adversity quotient on students' mathematics learning outcomes can be seen in Table 3.

Table 3 Structural Equations II

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	274.582	3	91.527	22.222	.000ᵃ
	Residual	82.376	20	4.119		
	Total	356.958	23			

In Table 3, the sig value is obtained. 0.000 < 0.05 so that it accepts H0. So, we can conclude that structural equation II is significant or simultaneously there is a relationship between the way teachers teach students, parents' attention, and the adversity quotient on students' mathematics learning outcomes. Furthermore, the magnitude of the path coefficient can be observed in the following table.

Table 4 Path Coefficient of Structural Model II

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	29.838	8.211		3.634	.002
	Orang Tua	.161	.148	.135	3.088	.003
	Guru	.144	.164	.125	2.880	.004
	AQ	.402	.080	.719	4.993	.000

In table 3, the sig value is obtained. 0.000 < 0.05 so that it accepts H0. So we can conclude that structural equation II is significant or simultaneously there is a relationship between the way teachers teach students, parents' attention, and the adversity quotient on students' mathematics learning outcomes. Furthermore, the magnitude of the path coefficient can be observed in the following table.

Table 5 Coefficient of Determination of Structural Model II

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877a	.769	.735	2.029

Meanwhile, the big price is $R^2 = 0.769$. This means that it has a contribution or influence of X1, X2, and X3 simultaneously on Y by 76.9% and the remaining 23.1% is the influence of several other variables which are not included in the study. Then, the value is $e_2 = \sqrt{(1-0,769)} = 0,48$ Referring to the results of the data analysis above, the multiple linear regression equation is: $X_4 = 0,125 X_1 + 0,135 X_2 + 0,719 X_3 + 0,48$. So that the path diagram of the structural model II is like Figure 4.3.
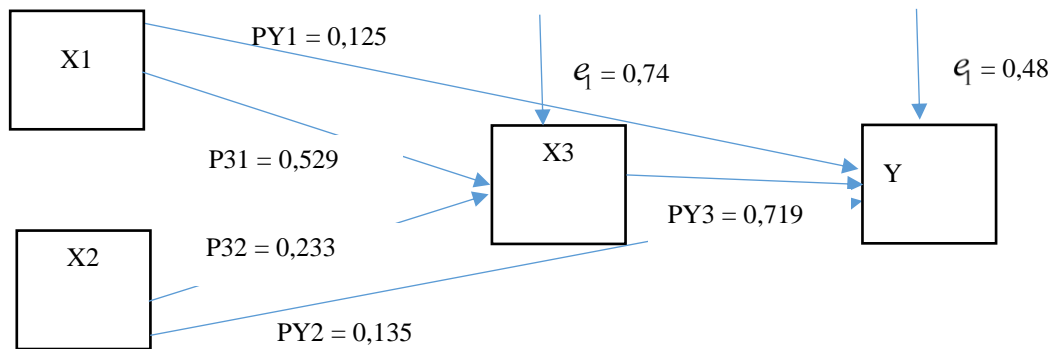
Figure 3 Structural Model II

From the Structural Model II, it can be explained if there is a direct or indirect relationship between the variables X1 and X2 on Y. The summary of the relationship is presented in Table 6 below.

Table 6 Summary of relationships X1, X2 and X3

Variabel	Direct Effect	Indirect Effect	Total Effect
X1	0,125	0,529 x 0,719 = 0,380	0,125 + 0,380 = 0,505
X2	0,135	0,233 x 0,719 = 0,167	0,135+ 0,167 = 0,302
X3	0,719	0	0,719
Total	0,979	0,678	1,526

Based on Figure 3, it shows that the Adversity Quotient of students has a positive correlation with students' mathematics learning outcomes. This is in line with research conducted by Sri Utami, et al where Adversity Quotient training can increase students' learning motivation. It is also supported by Sudarman's research in which students' AQ will automatically generate students' motivation to learn and learning motivation has a positive effect on students' mathematics learning achievement. Based on the results of data analysis conducted, it shows that the influence of the teacher's way of teaching students is greater than the attention of parents both on AQ and student learning outcomes. However, the difference in effect is not very significant. This is because the AQ instrument used is more related to the student learning process, so the role of the teacher is greater. However, the overall factors of teachers and parents are very influential on student learning outcomes.

4. CONCLUSION

Based on the results of the research data analysis and discussion in chapter IV, it can be concluded several points as follows:

- There is a contribution of the way teachers teach students to students' mathematics learning outcomes. This can be seen from the significance value of X1 = 0.004 which is less than 0.05.
- There is a contribution of parental attention to students' mathematics learning outcomes. This can be seen from the significance value of X2 = 0.003 which is less than 0.05.
- There is a contribution of the way teachers teach students to the Adversity Quotient of students. This can be seen from the significance value of X1 = 0.008 which is less than 0.05.
- There is a contribution of parental attention according to the student's Adversity Quotient. This can be seen from the significance value of X2 = 0.013 which is less than 0.05.
- There is a contribution of students' Adversity Quotient to students' mathematics learning outcomes. This can be seen from the significant value of X3 = 0.000 which is less than 0.05.
- There is a contribution of the way teachers teach students to students' mathematics learning outcomes through Adversity Quotient. This can be seen from the direct effect given by X1 to X4 which is 0.125. While the indirect effect of X1 through X3 on X4 is the result of the multiplication of the betta value of X1 against X3 with the value of betta X3 against X4, namely: 0.529 x 0.719 = 0.380. So, the total effect of X1 on X4 is the direct effect which is added to the indirect effect, namely: 0.125 + 0.380 = 0.505. The

result of the above calculation shows that the value of the direct effect is 0.125 and the indirect effect is 0.380, which means that the value of the indirect effect is greater than the direct effect.

- There is a contribution of parental attention to students' mathematics learning outcomes through Adversity Quotient. This can be seen from the indirect effect given by X2 on X4 obtained 0.135. The indirect effect of X2 through X3 on X4 is the result of the multiplication between the value of betta X2 against X3 and the value of betta X3 against X4, namely: 0.233 x 0.719 = 0.167. So it is found that the total effect given by X1 to X4 is the direct effect which is added to the indirect effect, namely: 0.135 + 0.167 = 0.302. From the results of these calculations, it is found that the value of the direct influence is 0.135 and the indirect effect is 0.167, which means that the value of the indirect effect is greater than the direct influence.
- There is a contribution of the way teachers teach students and the attention of parents to students' mathematics learning outcomes through Adversity Quotient. This can be seen from the equation, which shows a direct relationship between the way teachers teach students to learning outcomes by 52.9% and parents' attention to learning outcomes by 23.3% and the rest is influenced by other factors outside of this study.

5. ACKNOWLEDGEMENTS

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