



The Effect of EQ on Mathematics Learning Achievement of MTs Islamiyah Medan Students

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Abstract

This study aimed to find out how emotional instability affects the mathematics learning ability of grade VIIIA Islamiyah Medan students. Based on the hypothesis proposed, there is evidence that the emotional instability of grade VIIIA Islamiyah Medan students positively affects their ability to learn mathematics. The sample of this study amounted to 37 students of grade VIII A MTs Islamiyah Medan. This type of research uses ex post facto quantitative models. The research material was 25 emotional intelligence questionnaire surveys and five learning achievement test subjects. The data analysis techniques used combine descriptive analysis with simple regression additional strategies. The research findings showed that the percentage of emotional stress in students of 43.3% fell into the high percentage category. In general, 70.2% put the picture of students' mathematics learning outcomes in the medium category. The equation $Y = 28.564 + 0.976X$ was obtained from the investigation's findings using simple linear regression. H_a was approved, and H_o was rejected. Based on the findings of the significance test, which shows a significant value of 0.000 where the value is significant 0,05. shows that emotional intelligence impacts students' ability to master mathematics.

INTRODUCTION

Today, we live in an era where one must develop academically, be a reliable leader, be a good communicator, be trustworthy, and be creative enough to continue innovating. In these competitive and ever-changing times, this is crucial. The Preamble of the 1945 Constitution and Law Number 20 of 2003 states that the purpose of the Indonesian nation is to educate the community and develop every individual into a fully intelligent human being. As a result of people's faith in God Almighty, high morals, knowledge and proficiency in various fields, physical and spiritual health, positive outlook, independence, and reliability, the parties involved must contribute to the achievement of national education goals.

There are 3 Intellectual intelligence (IQ), emotional intelligence (EQ), and spiritual intelligence (SQ) are the three main categories of student intelligence. The factor that distinguishes students' intelligence from one another is the level of intelligence. To acquire knowledge meaningfully that can affect learning outcomes, the student must evaluate his capacity. When evaluating a person's intelligence, it is important to consider the type of learning method

used to understand the lesson. David also emphasized that education is a sophisticated and comprehensive learning process in the classroom [1].

According to Binet [2], the ability to define and maintain goals, make changes to achieve those goals, and evaluate oneself critically and objectively are examples of intelligence. However, other elements also impact success, not just intelligence that determines it. Because intellectual capacity alone cannot function properly in these conditions, students need emotional intelligence to absorb the teachings taught by teachers regarding self-confidence, self-motivation, mood regulation, and interpersonal skills, such as emotional intelligence [3].

Both of these abilities are very important for students in the teaching and learning process because emotional intelligence is needed so that IQ can function optimally when applied to the subjects taught in class. Therefore, it is very clear that their IQ and EQ represent the intelligence that exists in each person and cooperates. The secret to successful student learning in school is a balance between IQ and EQ. [4], According to research, IQ only serves as a prerequisite for success in life. Emotional Quotient (EQ) or emotional intelligence is a new way of thinking thought to have the power to propel a person to the peak of performance. This is shown by the number of intelligent individuals left behind in the face of global competition. On the contrary, those with average intelligence often successfully start their businesses and occupy leadership positions. Compared to intellectual intelligence (IQ), The role of emotional intelligence is much more significant. IQ, or intellectual intelligence, is only essential for success, while emotional intelligence is the peak performance for true red success [5].

According to Yapono and Suharnan (2019), The capacity to detect, generate, and input emotions that can be used to express The capacity to understand people at a deeper level is the capacity to deal with one's own feelings and the feelings of others in a way that supports deep and scientific development [6]. The capacity to appreciate individuals is essentially the perspective that everyone has to understand emotions, knowledge, and the ability to control emotions in order to and show behavior in accordance with environmental expectations. The ability to, use, and express emotions is another aspect of emotional intelligence. [7], From these two points of view, we can conclude that emotional intelligence is the source of energy generated from emotional sensitivity as and human influence that each student has.[8], related to Solovey and Mayer's theory, includes the following indicators: A person must be able to: A. Understand your own feelings; B. Deal with your feelings c. Push yourself d. know the feelings of others and e. Make associations with others. according to Daniel Goleman. as emotional intelligence index to evaluate human capacity in learning practical skills. deals with five dimensions Two social skills. empathy and social skills as well as three personal skills. self-awareness, self-regulation, and self-motivation [6], Indicators of emotional intelligence according to Petrides and Furnham: Regulating mood, using social skills, harnessing emotions, and assessing emotions. [9],

In general, emotional intelligence needs to be taught to students because otherwise they may behave unacceptably in society. The positive outcome of teaching emotional intelligence is, they may have successful relationships, good physical and spiritual health, successful careers, and academic achievements. in the world of work and at school. [10], Emotional intelligence seems increasingly difficult to develop in today's people, specifically compassion (information about grasping others), emotional expression and understanding, emotional control, independence,

flexibility, likability, capacity to solve interpersonal problems, tenacity, solidarity and compassion, and respect. [11].

Facts in the field after conducting interviews with mathematics teachers conducted by researchers with mathematics teachers at MTs Islamiyah Medan schools found that most students tend to be able to master the lessons given by mathematics teachers but they are lazy to learn too, doing math examples. This is shown when students are given more in-depth teaching by their teachers. They are able to finish their work, but are reluctant to do it out of boredom. Students often feel hindered when dealing with numerical questions. After talking to 34 students, it was discovered that 79% of them did not enjoy maths as it considered it a difficult subject. The students also stated that they were lethargic and tired in counting numbers in arithmetic illustrations.

Based on research findings, Indonesian students currently only 48% know what EQ is. Given how important EQ is, this is alarming. Of course, this must be addressed by parents and educators in order to improve children's EQ [10]

In addition to EQ, the study also looked at student achievement. The Big Dictionary Indonesian defines learning achievement as the result of mastering knowledge or abilities obtained through subjects, which are usually assessed based on test results or scores obtained from teachers. The learning outcomes that have been obtained after carrying out the teaching and learning process are reflected in learning achievement [12]. In accordance with [13], Learning achievement is defined as the values obtained from the teacher's final formulation of student development in relation to learning achievement within a certain period of time. As a result, the learning process reaches its peak when the ability to demonstrate or realize learning objectives Purnama emphasized that the achievement of adfalah teaching, the talents possessed by students are only related to the cognitive realm at the level of memory, understanding, and application after participating in teaching and learning activities that will be assessed by the teacher. [4], Therefore, learning achievement can be understood as student learning outcomes that are often assessed by teacher grades.

According to Wahab, EQ is one of the elements that affect how well students learn. Some of the elements that affect learning success are as follows: (1) Emotional Intelligence; (2) better educational and learning values; (3) evaluation of brain growth. [14], Three indicators are used to assess student achievement. The first part is the cognitive part. This affect, highlights students' success in written and oral examinations; the affective second order includes behavioral traits including grades, interests, attitudes, and feelings; The third domain is known as the psychomotor component. Psychomotor is a perspective that is connected to elements of movement with the nervous system, such as running, stepping, sketching, talking, building or disassembling equipment, and so on. [15].

In general, mathematics learning achievement at MTs Islamiyah Medan school is included in the standard category. There are students who have high enough scores and are able to quickly and accurately understand the information taught by the teacher, but they often complain how boring the lesson is. On the other hand, some students have quite poor test results but a very large willingness to understand the lessons taught.

Based on the previous description, it can be concluded that students must have emotional intelligence to improve their academic performance. Experts are interested to know more about

"The Impact of the Ability to Appreciate Someone Deeper on Student Learning Achievement at MTs Islamiyah Medan" This exam aims to determine the relationship between the academic success of MTs Islamiyah Medan students with emotional intelligence.

METHOD

This research is a quantitative research model, ex post facto ex post facto research is research investigating causal relationships after an event occurs, without input from researchers. that in order for a student to achieve academic success, he must have emotional intelligence. This exam aims to find out more about "The Impact of the Ability to Appreciate Someone More Deeply on Student Learning Achievement at MTs Islamiyah Medan." Experts are interested in learning more about SPSS 26.0 for Windows,

The analysis techniques used by researchers include preloaded tests (normality tests, linearity tests) and hypothesis tests, hypothesis formulations, are:

Ho: Students' emotional intelligence does not have a positive influence on the learning achievement of students in class VIII A MTs Islamiyah Medan.

Ha: Students' emotional intelligence has a positive influence on students' learning achievement in class VIII A MTs Islamiyah Medan.

RESULTS AND DISCUSSION

Descriptive analysis was the first stage conducted in this study. The following table presents a descriptive picture of the emotional intelligence scores of 37 students of grade VIIA MTs Islamiyah Medan.

Table 1. Emotional Intelligence Descriptive Data

N	Valid	37
	Missing	0
Average value	71.16	
Middle value	70.00	
Std. Deviation	7.240	
Variance	52.417	
Distance	28	
Minimum value	59	
Maxsimal value	87	
Sum	2633	

Descriptive statistical data from 37 respondents are presented in the table above. resulting in a minimum score of 59 and a maximum score of 87, meaning the distance is 28. The average score is 71.16, the standard deviation is 7.240, the variance is 52.417, and the total score is 2633. These numbers show the variability (diversity) of the data.

From the above outputs then given a categorization of psychological qualities and sorted into There are three categories: low, medium, and high. The frequency distribution table is created as follows using the above data:

Table 2. Frequency of Emotional Intelligence

Interval	Frequency	Percentage	information
X 63	9	24,3%	Low
63 X 74	12	32,4%	Keep
74 X	16	43,3%	Tall
Total	37	100,0%	—

It can be seen from the data above that 24.3% of students fall into the low emotional intelligence category, with a frequency of 9, as many as 32.4% fall into the medium category, with a total frequency of 12, as many as 43.3% fall into the high category. These results show that grade VIII A MTs Islamiyah Medan students have excellent or high emotional intelligence.

The following is a table of descriptive information on the achievements of 37 grade VIII A MTs Islamiyah Medan students studying mathematics:

Table 3. Descriptive Data Student Learning Achievement

N	Valid	37
	Missing	0
Average		40,92
Middle value		42,00
Std. Deviation		12,235
Variance		149,688
Distance		54
Minimum value		10
Maximal value		64
Sum		1514

Descriptive statistics obtained from 37 respondents With a minimum score of 10 and a maximum score of 64, it is at a distance of 54, according to the table above. The overall score was 1514, with an average of 40.92, a variance of 149.688, and a standard deviation of 212.235.

Based on the output, then given a categorization of the quality of learning achievement, into three categories: high, medium, and low. The frequency distribution table is created as follows using the above data:

Table 4. Frequency of Mathematics Learning Achievement

X 27	6	16,2%	Low
27 X 54	26	70,2%	Moderate
54 X	5	13,6%	High
Total	37	100,0%	—
Total	37	100,0%	—

Based on the table above, as many as 16.2% of students fall into the low category, the number of frequency is 6, as many as 70.2% of students fall into the medium category, the number of frequency is 26 and 13.6% of students fall into the high category of number of frequency 5. This finding shows that grade VIII A MTs Islamiyah Medan students have good learning achievements.

A normality test is performed to try to ascertain whether an n-size random sample originated from a normally distributed population or not, which then performs a simple regression analysis [12].

Table 5. Normality Test Results of Research Results

One-Sample Kolmogorov-Smirnov Test			
		emotional intelligence	Student achievement
N		37	37
Normal Parameters ^{a,b}	Mean	71,16	40,9189
	Std. Deviation	7,240	12,23469
Most Extreme Differences	Absolute	,113	,119
	Positive	,113	,089
	Negative	-,085	-,119
Test Statistics		,113	,119
Asymp. Sig. (2-tailed)		,200 ^{c,d}	,200 ^{c,d}

The table above shows the results of the K-S/Kolmogorov Smirnov normality test of Asymp sig values. (2-failed) for variable X (Emotional Intelligence) based on $\alpha = 0.05$ In the results of SPSS 26.0 for Windows, a Sig value of $0.200 > 0.05$ can be obtained so that H_0 can be interpreted as normally distributed data.

Based on the results of the data normality test, the next step is a linearity test. To find the regression line equation using the SPSS 26.0 program to see if it has a linear pattern or not.

Table 6. Calculate F Value Linearity Test

			Sum of Squares	Df	Mean Square	F	Sig.
Student learning achievement * emotional intelligence	Between Groups	(Combined)	3012,290	16	188,268	1,584	,164
		Linearity	1798,997	1	1798,997	15,140	,001
		Deviation from Linearity	1213,293	15	80,886	,681	,774
	Within Groups		2376,467	20	118,823		
	Total		5388,757	36			

Based on the results of the Linearity test, it is known that the linearity deviation is $0.774 > 0.05$. Therefore, it can be said that the independent factor (X) and the dependent variable (Y) have a unidirectional relationship. Moreover, the dependent variable (Y) and the independent factor (X) tend to have a linear relationship because the calculated F value is $0.681 < F$ table 2.67. These findings suggest that emotional intelligence affects the mathematics learning achievement of grade VIII students at MT's Islamiyah Medan has linear data.

A simple regression test was used to answer the speculation in this exploration and see if there was an influence of the ability to appreciate people more deeply on the learning achievement of grade VII A MTs Islamiyah Medan students.

Table 7. Simple Linear Regression

Type	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	28,564	16,674		-1,713	,096
Emotional Intelligence	,976	,233	,578	4,188	,000

The analysis of the data above shows that the results of this study obtained a constant value of 28,564. Thus, if the student's emotional intelligence score is 0 then the math learning achievement score is 28,564. The relapse coefficient of people's comprehension ability on the depth-level variable is 0.976, which means that whenever the capacity to value anyone at its core is expanded, the student's mathematics learning capacity will increase by 0.976, thus causing a recurrence of the basic condition $Y = 28.564 + 0.976X$.

Given the information in the table above, The learning success of grade VII A MTs Islamiyah Medan students is directly influenced by the ability to understand humans deeply. The capacity to value anyone at a level of core importance (Sig.) 0.000 to 0.05. H_a approved and H_0 rejected. The computation results in a connection of 0.578 and a collateral coefficient (R^2) of 0.334. The estimated results are shown in the table below.

Table 8. Coefficient of Determinant

Model Summary				
Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.578 ^a	.334	.315	10,127

According to the previous table, the R Square value of 0.334 or 33.4%, shows emotional intelligence affects mathematics learning achievement by 33.4%, while other variables that were not studied in this study accounted for the remaining 66.6%.

The results of research on the relationship of emotional intelligence with the learning achievement of grade VII A MTs Islamiyah Medan students can be utilized by students because students gain a deeper understanding of emotional intelligence which is one of the elements of success. According to Daniel Goleman, only 20% of success is determined by IQ; The other 80% is determined by other qualities, such as emotional intelligence. This groundbreaking study has a number of environmental impacts. All personal behaviors or skills (Self-competence) such as self-awareness, emotional control, self-motivation, social skills, and relationship building are examples of emotional intelligence. [3], A child's intellectual growth is influenced by emotional intelligence.

This is in accordance with the Semiawan hypothesis which states that contributions close to home impact intellectual stimulation and a child's intellectual development is largely determined by emotions [7]. The commitment of the ability to appreciate someone deeply for

learning achievement that is still at a moderate level is also influenced by various components of factors that affect learning achievement itself, such as motivation, family conditions, and natural conditions. Quality standards that have been selected so that they are close to normal grades can be used by the instructor concerned to measure the student's behavior, personality, and certain mentalities or abilities demonstrated by the student. These elements may also have an impact on academic success. Emotional intelligence is not something specifically taught in school or on report cards, unlike grades or other skills. When a person develops the ability to encourage himself, learning ceases to be a daunting experience and instead marks the beginning of achievement in achieving higher performance. Someone who can encourage him will be able to maintain a positive outlook on life and maintain his sense of humor. Even though junior high school students are children who are still growing and developing as a young generation.

Agus Efendi in his book states that childhood is the greatest period of growth. compared to adults, When children are born, they have more neurons. So, there is an opportunity for brain growth in children. Therefore, growth opportunities are created through fostering strong character in children, especially from an early age, so that children can develop a strong fighting spirit, higher self-motivation, and the ability to build positive associations with others. The ability to appreciate people deeply in the younger generation, especially those who are in elementary school or between the ages of 11 and 12. [16].

This exploration is supported by a past examination directed by [2] which found emotional intelligence has a good and significant impact on the mathematics achievement of grade V students of SD Negeri 1 Manonjaya. According to other studies that support this study emotional intelligence during learning has a good and significant impact on the academic achievement of grade IV elementary school students in Cluster 4 of Blimbing Regency [17].

CONCLUSION

Based on research findings, the ability of grade VIII students in learning mathematics is strongly influenced by the ability to understand individuals in depth. This is in accordance with simple regression findings with emotional intelligence significance values (Sig.) 0.000 0.05 then it can be said that H_{10} is rejected and H_a is accepted.

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