

THE RELATION BETWEEN *SELF-CONFIDENCE* AND MATHEMATICAL PROBLEM SOLVING ABILITY ON ISLAMIC JUNIOR HIGH SCHOOL STUDENTS

Rifa Mar'ah Sholihah¹, Harry Dwi Putra², Heris Hendriana³

MTs Yayasan Islam, Rajamandala Kulon, Bandung, Indonesia

rifasholihah2017@gmail.com

IKIP Siliwangi, Jl. Terusan Jend. Sudirman, Cimahi, Indonesia

harrydp@ikipsiliwangi.ac.id

IKIP Siliwangi, Jl. Terusan Jend. Sudirman, Cimahi, Indonesia

herishen@ikipsiliwangi.ac.id

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ABSTRACT

Mathematics is very important in life. The self-confidence that students have will certainly affect the process of learning mathematics. Learning objectives measure students' self-confidence towards mathematical problem-solving abilities. The aim of the study was to analyze the relationship between *self-confidence* and the ability to solve mathematical problems and analyze students' difficulties in solving problems on the System of Two Variable Linear Equations (SPLDV) material at Madrasah Tsanawiyah. Research using quantitative methods with correlation tests. The research sample was 20 Madrasah Tsanawiyah students. The research instrument consisted of a test to measure mathematical problem solving abilities in the form of 3 essay questions, while the non-test instrument was the *self-confidence* consisting of 20 statement items. . The learning method used conventionally students are divided into several groups randomly. School books are given as a guide for students in learning. The results showed that there was a very strong relationship ($r = 0.83$) between *self-confidence* and the ability to solve mathematical problems. Conclusion the results of the analysis of students' difficulties were found based on the polya step, especially at the stage of proving that students were not yet able to check the correctness of the solution in the process of working on solving mathematics. It is hoped that future research will use problem solving methods to see how self-confidence increases in the ability to solve mathematical problems.

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Corresponding Author:

Rifa Mar'ah Sholihah,
MTs Yayasan Islam Rajamandala,
Rajamandala Kulon, Bandung, Indonesia
Email: rifasholihah2017@gmail.com

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INTRODUCTION

It is important to have the ability to solve mathematical problems according to Nurhayati (2016) that problem solving is important in mathematics lessons, so students must be given the skills to solve the problems they face. Mathematical problem solving abilities will have an impact on students' cognitive conditions.

According to Andini et al., (2019) that learning mathematics is very important and will greatly impact students' abilities to solve their own problems. Dewi et al., (2020) stated that with the development of science and technology, students must be able to follow one of them by learning mathematics. According to Muniroh et al., (2018) that mathematics is a very important science to support and support various sciences , you can develop modern technology and the power of human thought. One of the abilities that must be possessed by students is solving contextual questions. This ability can be honed and developed in the teaching and learning process in the classroom. However, it was found that students when completing SPLDV still had difficulty distinguishing one-variable linear equations and two-variable linear equations. contextual problems into mathematical symbols, it is still difficult to solve story problems. This problem can occur because of various things that influence each other both in students and the learning process when using media in learning mathematics.

Students must have the ability to solve mathematical problems according to (Nurhayati, 2016) that the importance of problem solving skills is given to students so that students know how to solve problems in mathematics and other sciences and can offer logical, systematic, critical and open reasoning skills needed in everyday life. The skills possessed will have an impact on students' cognitive abilities, one of which is the ability to solve mathematical problems.

The findings Putra, Putri, et al., (2018) show that in one of the secondary schools, information was obtained that only 5 out of 35 students in the class were already in the formal stage and 30 students were still in the concrete thinking stage. Sumartini (2016) that however, 73% of students have relatively low problem solving skills. Based on the findings, students are still in a relatively low category in mathematical problem solving abilities. Analysis is needed to find student difficulties in the learning process.

Yusuf & Fitriani (2020) state that mistakes in solving math are natural, but if students make mistakes continuously it can affect outcomes or cause other problems. Students have low problem solving ability and difficult to solve problems because they do not have the knowledge they need to solve problems (Muniroh et al., 2018; Putra, Thahiram, Ganiati, & Nuryana, 2018; Putra, Putri, Fitriana, & Andayani, 2018). If this condition is allowed to continue, it will have an impact on *self-confidence* both at school and in the home environment. Conditions when learning students still have difficulty expressing opinions, self-confidence that is not maximized, independence in making decisions is still lacking, still waiting for friends when giving opinions. This factor is also very worrying and the learning process will not be maximized while *self-confidence* can be developed in the school environment, one of which is in learning mathematics. However, judging from the condition of students who still have difficulties in doing SPLDV, *self-confidence* will greatly affect the assumptions of researchers that there will be an influence on students' conditions so that this research is very important. According (Maulana et al., 2020) that self-confidence is included in the psychological side, so it is important to believe in the abilities and efforts that are achieved and improve the quality of learning for students.

It is important to have confidence according to Putra, Putri, et al., (2018) that problem solving abilities can be influenced by cognitive levels and self-confidence. Andayani & Amir (2019) that self-confidence or confidence is an important prerequisite for individuals or students to develop activity and creativity in order to achieve optimal learning and learning outcomes. Based on the above statement that the cognitive level and self-confidence of students will greatly influence the optimal achievement in learning.

Self-confidence or self-confidence according to Wardhana & Lutfianto (2018) is the condition of students who believe in themselves in solving mathematical problems and applying them in everyday life. Wijayanti (2013) states that self-confidence is the main factor of happiness and success. Hendriana (2014) according to believing in yourself affects (the level of performance or performance. Maulana et al., (2020) stated that one of the factors that influence the success of learning is the participants' self-confidence increases. Confidence certainly helps in various aspects of life both at school and in society and this is also one of the factors that influence the realization of a successful and happy life.

Found a problem of self-confidence that affects students' cognitive ability according to Andayani & Amir (2019) that this self-confidence can also be influenced by one's own skills and abilities. Students with high confidence easily interact with other students, are able to express and respect the opinions of others, are able to act and think positively when making decisions, while students with low confidence are difficult to communicate, argue and disagree can compete with students. sBased on this, confidence is very important because generally teachers carry out the learning process using groups, so this will greatly affect student learning outcomes. According to Lazard, Morony, and Ping (Bistari, 2017) *self-confidence* is an affective aspect that can measure and see the conditions of student achievement rather than other affective aspects. So that *self-confidence* can be formed and created in the learning process, of course it can be formed in the learning environment and at school, children who have good achievements can be aligned with aspects of *self-confidence* high

Indicator *self-confidence* that is applied to this study is that self-confidence is as follows: a) Believe in one's own abilities; b). Act independently in making decisions; c). Have a positive self-concept; d) Dare to express opinions. Reference point for measuring students' affective aspects in learning mathematics.

Self-confidence will certainly affect problem-solving abilities, in line with Purnamasari & Setiawan (2019) stating that humans will have problem-solving abilities when they practice often and can solve them well so that their abilities will increase. The role of *self-confidence* here is the courage to face problems. Especially in learning mathematics in line with Amam (2017) stating that problem-solving abilities are crucial abilities that must be possessed by students from learning mathematics. Hendriana (2014) states that students are expected to have problem solving skills cognitively excellent to train their thinking. Therefore problem solving ability is one of the important things that must be mastered by students.

According to Polya Wijayanti (2013) in solving problems there are 4 main steps, namely: (1) Students must know clearly what they already know; (2) Students must know how to connect various kinds of material, how to connect unknown data in order to get ideas to find solutions (to make plans); (3) Students carry out the plans they made in the previous step, (4) Students re-check their solutions or in other words reinterpret the problems they face.

Based on the explanation above, it is necessary to observe conditions regarding the relationship between *self-confidence* and the mathematical problem solving abilities of MTs students and the difficulties faced by students in solving contextual questions.

METHOD

Research using quantitative methods with correlation test to analyze the relationship self-confidence with mathematical problem solving abilities and analysis of students' difficulties in solving questions on the Two-Variable Linear Equation System (SPLDV) material at

Madrasah Tsanawiyah. The research sample was 20 students of class IX. Samples were obtained from a limited number of students at the school. The instrument consists of a test with 3 description questions and a non-test in the form of an opinion scale self-confidence 20 item statements, each consisting of 10 positive and negative statements. Processing of test and non-test data using SPSS version 22 and Microsoft Excel version 2010. The data processing technique is based on the percentage formula (Putri et al., 2019) as follows:

$$P = \frac{F}{N} \times 100\%$$

Description

P = Percentage number

F = Frequency being sought for percentage

N = The number of respondents.

The correlation interpretation using the Guilford Empirical Rules (Lestari, 2017) can be seen in Table 1 as follows.

Table 1. Guilford Empirical Rules

Great r	Interpretation
$0,00 < r < 0,20$	Very weak relationship (ignored, considered non-existent)
$0,20 \leq r < 0,40$	Low relationship
$0,40 \leq r < 0,70$	Medium/enough relationship
$0,70 \leq r < 0,90$	Strong relationship /high
$0,90 \leq r < 1,00$	Very strong/high relationship

To obtain the percentage of self-confidence through self-confidence. The percentages obtained for each statement item are then interpreted according to the criteria (Lestari, 2017) in Table 2 as follows:

Table 2. Criteria for Interpreting Percentage of Questionnaire Answers

Criteria for	Interpretation
P = 0%	Nobody
$0\% < P < 25\%$	Some small
$25\% \leq P < 50\%$	Almost half
P = 50%	Half
$50\% < P < 75\%$	Most
$75\% \leq P < 100\%$	Almost all
P = 100%	Complete

RESULTS AND DISCUSSION

Results

After students are given tests and non-tests, then they are analyzed using SPSS to test the correlation of the data obtained as follows.

Hypothesis

H_0 : There is no relationship between *self-confidence* and the ability to solve mathematical problems in class IX students.

H_1 : There is a relationship between *self-confidence* and the ability to solve mathematical problems in class IX students.

Then test the normality of test data and non-test student results in Table 3 as follows.

Table 3. Data Normality

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Self_Confidence	.163	20	.169	.936	20	.201
Ability_Solving_Ma thematic Problems	.178	20	.095	.913	20	.072

a. Lilliefors Significance Correction

Significance value > 0.05 so that normally distributed data is obtained. Followed by the Pearson correlation test in Table 4 as follows.

Table 4. Pearson

Correlations				
		Self_Confidence	Ability_Problem_Solving_Ma thematics	
Self_Confidence	Pearson Correlation	1		
	Sig. (2-tailed)		.834**	
	N	20	20	
Ability_Problem - Solving_Mathem atics	Pearson Correlation	.834**		
	Sig. (2-tailed)	.000	1	
	N	20	20	

** . Correlation is significant at the 0.01 level (2-tailed).

Based on Table 4, the value of Sig. (2-tailed) is 0.000 < 0.05 so that H₀ is rejected. It can be stated that there is a relationship between *self-confidence* and the ability to solve mathematical problems in students. The results of a simple correlation analysis (r) obtained a value of r = 0.83 which indicates that there is a correlation between *self-confidence* and the ability to solve mathematical problems in class IX students is 0.834. This shows that there is a very strong relationship between *self-confidence* and students' mathematical problem solving abilities. While the direction of the relationship is positive because the value of r is positive, it means that the higher the *self-confidence* of students, the higher the ability to solve mathematical problems.

There is a relationship between *self-confidence* and the ability to solve mathematical problems in class IX students. Followed by testing the influence between *self-confidence* and students' mathematical problem solving abilities. Seen the regression test in Table 5 as follows.

Table 5. ANOVA

ANOVA ^a						
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	682.547	1	682.547	41.227	.000 ^b
	Residual	298.003	18	16.556		
	Total	980.550	19			

a. Dependent Variable: Self_Confidence
 b. Predictors: (Constant), Ability_Mathematic_Problem_Solving

From the output it is known that the calculated F value is 41.227 with a significance level of 0.000 less than 0.05, so there is an effect of *self-confidence* on mathematical problem solving

abilities. So that we will determine how strong the influence of these variables can be seen in Table 6 as follows.

Table 6. Simple Linear Regression Test

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.834 ^a	.696	.679	4.069	2.430

a. Predictors: (Constant), Ability_Problem_Solving_Mathematics
b. Dependent Variable: Self_Confidence

R square = 0.696 = 69%

From the table above the simple linear regression test can be explained by the magnitude of the relationship value from R square = 0.696 the output obtained that the effect of the independent variable on the dependent variable is 69% thus that the effect of the self-confidence variable *on* the ability variable solving mathematical problems in students by 69%.

Discussions

Seen in Table 7 regarding *self-confidence* as follows.

Table 7. *Self-Confidence*

No	Indicator	Percentage (%)
1	Believe in one's own abilities	60,25 %
2	Act independently in making decisions	64%
3	Have a positive self-concept	66%
4	Dare to express opinions	65,5%
	Average	63,93%

Based on Table 7 *self-confidence* above that the indicator of believing in one's own abilities is obtained 60.25% with the category that most students have confidence in their own abilities. Judging from the condition of students who try to work on their own without the help of the teacher or asking friends. Indicators of acting independently in making decisions obtained 64% with the category of most students having acted independently in making decisions. Judging from the students who volunteered to express opinions on the results of their work in class. The indicator of having a positive self-concept was obtained by 66% with the category that most students already had a positive self-concept. Seen from students who dare to express different opinions to their friends. The indicator of daring to express opinions was obtained by 65.5% with the category of mostly daring to express opinions. Judging from the progress of the discussion, a small number of students participated in expressing their opinions. Thus, it was obtained that the average *self-confidence* of class XI students was obtained at 63.93% with the category that most students already had all four indicators of *self-confidence*.

Wardhana & Lutfianto (2018) states that trusting self-student takes effect to competence. belief is belief personal to enable somebody in mathematics and to apply mathematics in his life. Judging by the research results of Hendriana et al., (2018) states that there is correlation which tall Among ability solving problem mathematics and trust self mathematics, and student proactive in To do learning based problem. However, in fact students still find difficulties seen by research results Yusuf & Fitriani (2020) stating that reflected from many students which difficulty completing question story contextually related SPLDV.

Followed by analyzing the ability to solve mathematical problems based on polya, it was found that students had not been able to apply polya steps. Can be seen in Figure 1 as follows.

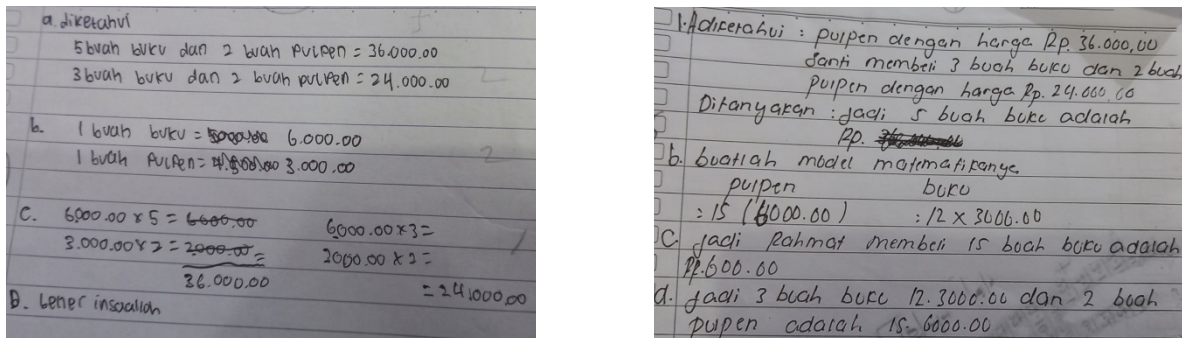


Figure 1. Problem Number 1 Score 3

Based on Figure 1, it can be seen that the results of the students' work indicated that they could write down what was known and asked about the questions, but students had not been able to present them with mathematical models or used examples and were found to be inaccurate in calculating multiplication operations. Below is Figure 2 which gets a score of 8 at number 1 as follows.

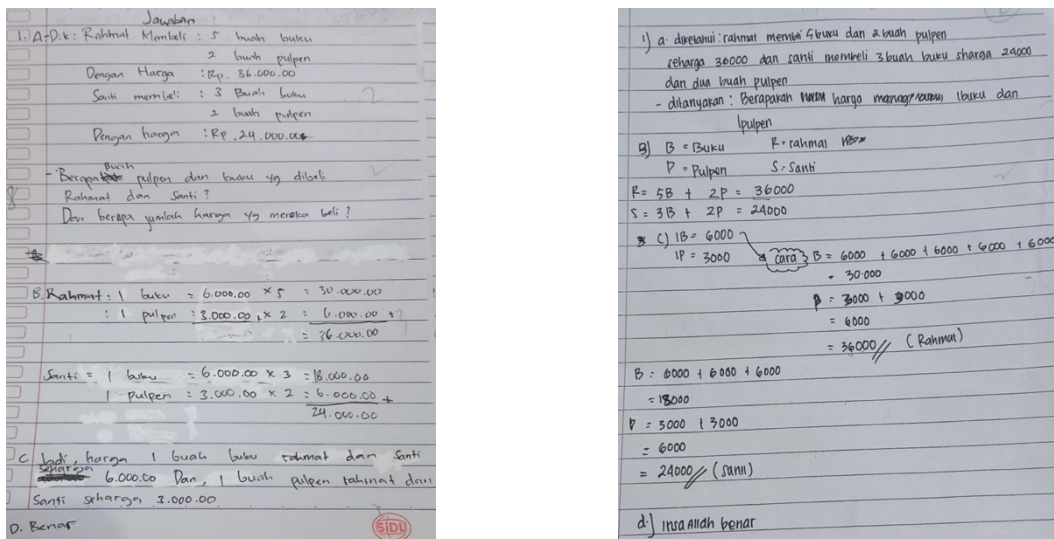


Figure 2. Problem Number 1 Score 8

Based on Figure 2, it can be seen that the results of the student's work have been able to write down what is known and asked about the problem, have been able to make an example but in

the calculation technique they are still guessing so the results obtained are not perfect, it can be seen in point d that it turns out that students have not been able to prove the results they found. Below is Figure 3 which gets a score of 3 at number 2 as follows.

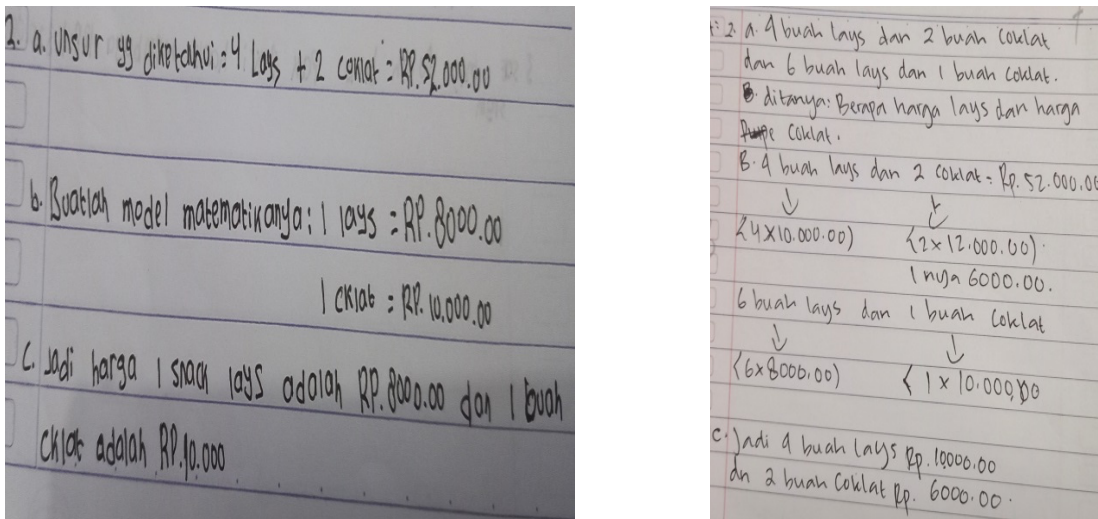


Figure 3. Problem Number 2 Score 3

Based on Figure 3, it can be seen that the results of student work show that students are still guessing without using the SPLDV calculation method and the writing is known and asked in questions that are not written sequentially. Below is Figure 4 which gets a score of 5 on number 2 as follows.

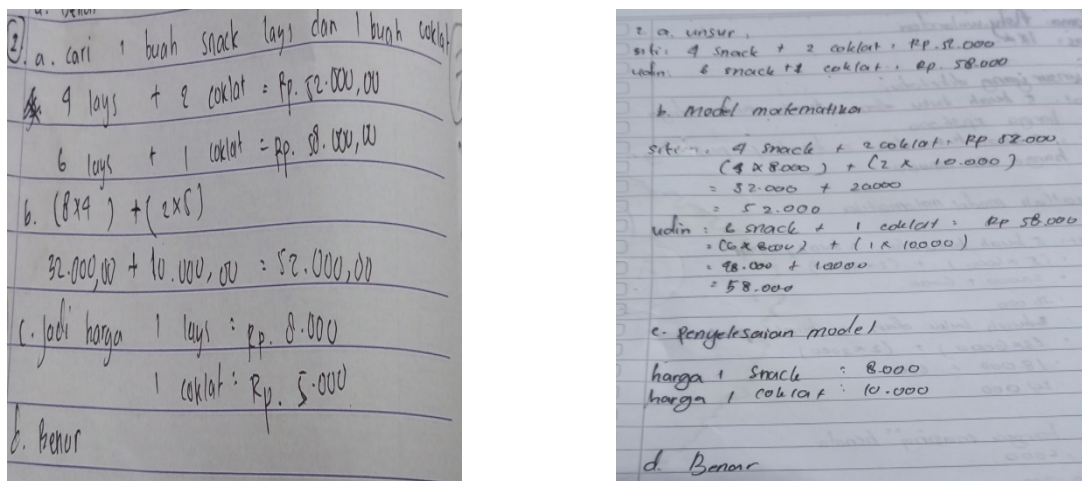


Figure 4. Problem Number 2 Score 5

Based on Figure 4, it can be seen that the results of the student's completion have been able to understand the problem. It can be seen from the writing that it is known and asked, but in its completion, manual calculation techniques and estimates are still used. Below is Figure 5, which obtained a score of 5 at number 3 as follows.

3) a) Untuk diketahui
 Bu Aminah Membeli satu kilo jeruk & dua kilo mangga
 Rp. 60.000
 Bu Rahma Membeli 3 kilo jeruk & empat kilo mangga
 Rp. 130.000

b). 9000/kg = Jeruk
 25.000/kg = Mangga
 bu Aminah = 1/kg jeruk = 9000 = 9000
 2/kg Mangga = 25.000 = 25.000 + 25.000 = 50.000
 = 59.000 harga yang 59.000 bukan
 60.000
 bu Rahma = 3/kg jeruk = 9000 = 27.000
 4/kg Mangga = 25.000 = 100.000
 = 127.000 bukan 130.000

c). Bu Aminah = Rp. 59.000
 Bu Rahma = Rp. 127.000

d). salah

3. a) Diket = - Bu aminah membeli 1 kg jeruk dan 2 kg mangga dengan harga Rp. 60.000,00
 - Bu Rahma membeli 3 kg jeruk dan 4 kg mangga dengan harga Rp. 130.000,00
 Ditanya = Berapa kembalian uang Bu Aminah dan bu rahma?

~~$A = \frac{R}{\text{Harga jeruk}} \times \text{uang}$~~
 ~~$R = \frac{A}{\text{Harga mangga}} \times \text{uang}$~~
 c) $A = 1 \text{ kg jeruk}$

b) - Harga 1 kg jeruk 9000
 - Harga 1 kg mangga 25.000.

(Bu Aminah) = 1 kg jeruk x 9000 = 9.000
 2 kg mangga x 25.000 = 50.000
 Rp. 59.000,00
 - uang Bu Aminah Rp. 60.000,00 jadi
 60.000 - 59.000 = 1.000
 - jadi kembalian uang bu Aminah Rp. 1000

(Bu Rahma) = 3 kg jeruk x 9000 = 27.000
 4 kg mangga x 25.000 = 100.000
 Rp. 127.000
 - uang Bu Rahma Rp. 130.000,00 jadi
 130.000 - 127.000 = 3.000
 - jadi kembalian uang bu Rahma Rp. 3000

d) Benar.

Figure 5. Problem Number 3 Score 5

Based on Figure 5, it can be seen that the results of student work show that students are able to interpret what is meant in the problem, but students have not been able to apply mathematical models in solving problems, the completion is done by trial and error technique but it seems that the answers are directed but have not found the right results.

Based on the explanation above, it can be seen that students have not been able to make mathematical models, tend to solve problems in their own way, students have not been able to design mathematical solutions using the SPLDV Elimination-Substitution method, have not been able to check the correctness of solutions or the process of working on mathematical solutions. Found several difficulties faced by students based on polya steps. The different conditions of students will certainly affect the results of the completion, at the four stages there are some students who have not been able to finish it and some are only half in the process of completing it.

CONCLUSION

The results of the observations stated that there was a relationship between *self-confidence* and the ability to solve mathematical problems in class IX students and that there was an effect of the variable *self-confidence* on the variable ability to solve mathematical problems in these students by 69%. Judging from *self-confidence*, an average of 63.93% was obtained with the category that most students already had the four indicators of *self-confidence*. But the ability to solve mathematical problems is still found by students who have not been able to master the four polya indicators. Based on the results of this study, it is hoped that further research can be developed in a better direction from the realm of students' problem-solving

abilities using appropriate media and teaching materials to improve mathematical problem-solving abilities.

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REFERENCES

- Amam, A. (2017). Penilaian Kemampuan Pemecahan Masalah Matematis Siswa Smp. *Teorema*, 2(1), 39. <https://doi.org/10.25157/v2i1.765>
- Andayani, M., & Amir, Z. (2019). Membangun Self-Confidence Siswa melalui Pembelajaran Matematika. *Desimal: Jurnal Matematika*, 2(2), 147–153. <https://doi.org/10.24042/djm.v2i2.4279>
- Andini, D., Mulyani, N., Wijaya, T. T., & Supriyati, D. N. (2019). Meningkatkan Kemampuan Komunikasi Matematis Dan Self Confidence Siswa Menggunakan Pendekatan PBL Berbantuan Geogebra. *Jurnal Derivat: Jurnal Matematika Dan Pendidikan Matematika*, 5(1), 82–93. <https://doi.org/10.31316/j.derivat.v5i1.150>
- Bistari. (2017). Meningkatkan Kemampuan Komunikasi Matematis dan Self -. *Mosharafa: Jurnal Pendidikan Matematika*, 6(2527–8827), 419–430.
- Dewi, R. S., Sundayana, R., & Nuraeni, R. (2020). Perbedaan Peningkatan Kemampuan Komunikasi Matematis dan Self-Confidence antara Siswa yang Mendapatkan DL dan PBL. *Mosharafa: Jurnal Pendidikan Matematika*, 9(3), 463–474. <https://doi.org/10.31980/mosharafa.v9i3.830>
- Hendriana, H. (2014). Membangun Kepercayaan Diri Siswa Melalui Pembelajaran Matematika Humanis. *Jurnal Pengajaran Matematika Dan Ilmu Pengetahuan Alam*, 19(1), 52. <https://doi.org/10.18269/jpmipa.v19i1.424>
- Hendriana, H., Johanto, T., & Sumarmo, U. (2018). Peran Pembelajaran Berbasis Masalah Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematika Siswa Dan Percaya Diri. *Jurnal Pendidikan Matematika*, 9(2), 291–300.
- Lestari, K. E. dan M. R. Y. (2017). *Penelitian Pendidikan Matematika*. PT Refika Aditama.
- Maulana, A. F., Utami, W. B., & Dwi W., E. (2020). Keefektifan Model Pembelajaran Two Stay Two Stray Terhadap Self-Confidence dan Prestasi Belajar Matematika. *Jurnal Inovasi Pendidikan Matematika (JIPM)*, 2(1), 22–31. <https://doi.org/10.37729/03>
- Muniroh, S., Rosyana, T., & Hendriana, H. (2018). Hubungan Self-Confidence Dengan Kemampuan Komunikasi Matematik Siswa Smp. *JPMI (Jurnal Pembelajaran Matematika Inovatif)*, 1(4), 479. <https://doi.org/10.22460/jpmi.v1i4.p479-486>
- Nurhayati, E. (2016). Penerapan scaffolding untuk pencapaian kemampuan pemecahan masalah matematis. *JP3M (Jurnal Penelitian Pendidikan Dan Pengajaran Matematika)*, 2(2), 107–112. <https://jurnal.unsil.ac.id/index.php/jp3m/article/view/Eli22>
- Purnamasari, I., & Setiawan, W. (2019). Analisis kemampuan pemecahan masalah matematis siswa SMP pada materi SPLDV ditinjau dari kemampuan awal matematika. *Journal of Medives: Journal of Mathematics Education IKIP Veteran Semarang*, 3(2), 207–215.
- Putra, H. D., Putri, W. A. S., Fitriana, U., & Andayani, F. (2018). Kemampuan Pemecahan Masalah Matematis dan Self-Confidence Siswa SMP. *SJME (Supremum Journal of*

- Mathematics Education*), 2(2), 60–70. <https://doi.org/10.35706/sjme.v2i2.1313>
- Putra, H. D., Thahiram, N. F., Ganiati, M., & Nuryana, D. (2018). Kemampuan Pemecahan Masalah Matematis Siswa SMP pada Materi Bangun Ruang. *JIPM (Jurnal Ilmiah Pendidikan Matematika)*, 6(2), 82–90. <https://doi.org/10.25273/jipm.v6i2.2007>
- Putri, A. D., Hasnita, S., Vilardi, M., & Setiawan, W. (2019). Analisis Pengaruh Minat Belajar Siswa MA Dengan Menggunakan Aplikasi Geogebra Pada Materi SPLDV. *Edumatica: Jurnal Pendidikan Matematika*, 9(1), 47–52. <https://doi.org/10.22437/edumatica.v9i1.6348>
- Sumartini, T. S. (2016). Kemampuan Pemecahan Masalah Matematika dalam Menyelesaikan Soal Cerita Berdasarkan Langkah Polya. *Jurnal Pendidikan Matematika STKIP Garut*, 5(2), 1–7. https://scholar.googleusercontent.com/scholar?q=cache:jfDgJQUQWmcJ:scholar.google.com/+Peningkatan+Kemampuan+Pemecahan+Masalah+Matematis+Siswa+melalui+Pembelajaran+Berbasis+Masalah&hl=id&as_sdt=0,5
- Wardhana, I. R., & Lutfianto, M. (2018). Analisis Kemampuan Komunikasi Matematis Siswa Ditinjau Dari Kemampuan Matematika Siswa. *UNION: Jurnal Ilmiah Pendidikan Matematika*, 6(2), 704–709. <https://doi.org/10.30738/.v6i2.2213>
- Wijayanti, P. S. (2013). Pengaruh Pendekatan MEAs terhadap Kemampuan Pemecahan Masalah, Komunikasi Matematis, dan Kepercayaan Diri Siswa. *Jurnal Pendidikan Matematika*, 8(2), 181–192.
- Yusuf, A., & Fitriani, N. (2020). Analisis kesalahan siswa smp dalam menyelesaikan soal persamaan linear dua variabel di SMPN 1 campaka mulya-cianjur. *Jurnal Pembelajaran Matematika Inovatif*, 3(1), 59–68. <https://doi.org/10.22460/jpmi.v3i1.p59-68>