

The Influence of Self Efficacy on Students' Mathematical Communication Ability



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Abstract

This research was motivated by problems found in class VIII Girls at the Sumatra Thawalib Parabek Islamic Boarding School, where students' self-efficacy was still relatively low, this can be seen from students who were still afraid to express their opinions and there were still many students who looked at their friends' answers in mathematics learning. Apart from that, students are also less able to understand mathematics questions related to mathematical communication skills. The formulation of the problem in this research is whether there is a significant influence of self-efficacy on students' mathematical communication skills in class VIII Girls at the Thawalib Parabek Sumatra Islamic Boarding School for the 2022/2023 academic year. This research aims to determine whether there is a significant influence of self-efficacy on students' mathematical communication skills in class VIII Girls at the Thawalib Parabek Sumatra Islamic Boarding School for the 2022/2023 academic year. The hypothesis in this research is "There is a significant influence of self-efficacy on students' mathematical communication skills in class VIII girls at the Thawalib Parabek Sumatra Islamic Boarding School." The type of research used is correlational research with Ex Post Facto research characteristics. The population in the study were female class VIII students at the Thawalib Parabek Sumatran Islamic Boarding School. The sample in the research was 31 students, namely $(122 \times 25\% = 30.5)$. The instruments used in this research were a questionnaire to determine students' self-efficacy and a test to determine mathematical communication skills. Based on the research results, a regression equation was obtained between self-efficacy and the mathematical communication skills of class VIII female students at the Thawalib Parabek Sumatran Islamic Boarding School, namely $y = -3.295 + 0.259 x$. This shows that there is a positive influence of cell efficacy on mathematical communication skills. The correlation coefficient value is $r_{xy} = 0.554$ and the coefficient of determination value is $KD = 30.69\%$. Shows that self-efficacy has an influence of 30.69% on students' mathematical communication skills. Based on the hypothesis test, $t_{count} = 3.5836 > t_{table} = 1.699$ at a confidence level of 0.05. It was concluded that there was a significant influence of self-efficacy on the mathematical communication skills of class VIII female students at the Thawalib Parabek Sumatra Islamic Boarding School.

Abstrak

Penelitian ini dilatarbelakangi oleh permasalahan yang ditemukan pada kelas VIII Putri Pondok Pesantren Sumatera Thawalib Parabek, yang dimana self efficacy siswa yang masih tergolong rendah, hal ini dapat dilihat dari siswa yang masih takut untuk menyampaikan pendapatnya dan masih banyak siswa yang melihat jawaban temannya dalam pembelajaran matematika. Selain itu, siswa juga kurang mampu memahami soal-soal matematika yang berkaitan dengan kemampuan komunikasi matematika. Rumusan masalah dalam penelitian ini adalah apakah terdapat pengaruh signifikan self efficacy terhadap kemampuan komunikasi matematika siswa di kelas VIII Putri Pondok Pesantren Sumatera Thawalib Parabek Tahun Pelajaran 2022/2023. Penelitian ini bertujuan untuk mengetahui apakah terdapat pengaruh signifikan self efficacy terhadap kemampuan komunikasi matematika siswa di kelas VIII Putri Pondok Pesantren Sumatera Thawalib Parabek Tahun Pelajaran 2022/2023. Hipotesis dalam penelitian ini adalah "Terdapat Pengaruh signifikan self efficacy terhadap kemampuan komunikasi matematika siswa di kelas VIII putri Pondok Pesantren Sumatera Thawalib Parabek". Jenis penelitian yang digunakan adalah penelitian korelasional dengan sifat penelitian Ex Post Facto. Populasi dalam penelitian adalah siswa kelas VIII putri Pondok Pesantren Sumatera Thawalib Parabek. Sampel dalam penelitian adalah 31 siswa

yaitu ($122 \times 25\% = 30,5$). Instrumen yang digunakan dalam penelitian ini adalah angket untuk mengetahui self efficacy siswa dan tes untuk mengetahui kemampuan komunikasi matematika. Berdasarkan hasil penelitian diperoleh persamaan regresi antara self efficacy dengan kemampuan komunikasi matematika siswa kelas VIII putri Pondok Pesantren Sumatera Thawalib Parabek yaitu $y = -3,295 + 0,259x$. Hal ini menunjukkan bahwa terdapat pengaruh positif self efficacy terhadap kemampuan komunikasi matematika. Nilai koefisien korelasi sebesar $r_{xy} = 0,554$ dan nilai koefisien determinasi sebesar $KD = 30,69\%$. Menunjukkan bahwa self efficacy memberikan pengaruh sebesar 30,69% terhadap kemampuan komunikasi matematika siswa. Berdasarkan uji hipotesis diperoleh $t_{hitung} = 3,5836 > t_{tabel} = 1,699$ pada tingkat kepercayaan 0,05. Disimpulkan bahwa terdapat pengaruh yang signifikan self efficacy terhadap kemampuan komunikasi matematika siswa kelas VIII putri Pondok Pesantren Sumatera Thawalib Parabek.

INTRODUCTION

Education has a very important role in preparing skilled, knowledgeable and noble human resources to face future developments. According to John Dewey, education is the process of forming fundamental intellectual and emotional skills towards nature and fellow humans (Hasibullah, 2003: 2). As explained in Republic of Indonesia Law Number 20 of 2003 concerning the National Education System article 1, paragraph 1 states that "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals, and skills needed by oneself, society, nation and state" (Hasibullah, 2003: 4). Education is a place to create human resources who are devout, intelligent and knowledgeable to face future developments for themselves, society, nation and state.

The Islamic religion also pays great attention to the issue of education according to Allah's promise which will raise the status of those with knowledge. As Allah SWT says in surah Al - Mujadallah verse 11 which means "O you who believe! If it is said to you, 'give space in the assemblies,' then make space, surely Allah will give you space. And when it is said, 'Stand up', then stand up, surely Allah will elevate (the degree of) those who believe among you and those who have been given knowledge to a few degrees. And Allah knows what you do" (Department of Religion of the Republic of Indonesia, 2004: 543). Allah SWT will privilege and increase the status of those who have knowledge. As creatures who are given reason and thoughts, humans are required to think and explore knowledge because Islam itself has made it mandatory to seek knowledge. One of the sciences that is really needed in life is mathematics.

According to R. Soedjadi, mathematics is knowledge of quantitative facts and problems regarding space and shape (Wandani, 2019: 3). According to James, mathematics is the science of logic, regarding shape, arrangement, quantity, and concepts related to one another, analysis and geometry (Wandani, 2019: 1). Russell also defined mathematics as a study that starts from the study of very well-known parts in an unknown direction. The known direction is well-organized (constructive), gradually moving towards the complicated (complex) direction from integers to broken numbers, real numbers to complex numbers, from addition and multiplication to differential and integral, and towards higher mathematics (Suherman, 2003 : 15).

From several expert opinions, it can be concluded that the definition of mathematics is a science that examines patterns of thinking, shape, arrangement, quantity, and concepts that are related to each other, all of which are studied using logic. Mathematics is also useful for helping humans understand and master various problems.

Mathematics learning according to Amin Suyitno is a process or activity of mathematics subject teachers in teaching mathematics to their students, which includes the teacher's efforts

to create a climate and service for the very diverse abilities, potential, interests, talents and needs of students regarding mathematics so that There is optimal interaction between teachers and students and between students and students in studying mathematics (Wandani, 2019: 5).

One of the objectives of learning mathematics according to Minister of Education and Culture Regulation Number 58 of 2014 is to communicate problems systematically (Maesari, 2019: 93). This is in line with the NCTM (National Council of Teachers of Mathematics) stating the standards for the mathematics learning process, one of which is mathematical communication (Syafri, 2017: 49-50). Thus, one of the abilities that students must have in the mathematics learning process is mathematical communication skills.

Mathematical communication is a basic mathematical ability that is essential and needs to be possessed by students (Hendriana, 2018: 59). Mathematical communication skills are the ability to convey mathematical thoughts or ideas both orally and in writing as well as the ability to understand and accept other people's mathematical ideas or thoughts carefully, analytically, critically and evaluatively to sharpen understanding (Lestari and Yudhanegara, 2015: 83). NCTM (National Council of Teachers of Mathematics) states that mathematical communication is an essential basic mathematical competency of mathematics and mathematics education. Without good communication, mathematical development will be hampered. Symbols are symbols or media that contain certain aims and objectives. Scientific communication symbols can be in the form of tables, charts, graphs, images of mathematical equations and so on. Schoen, Bean and Zibarth say that mathematical communication is the ability to explain algorithms and unique ways of solving problems, constructing and explaining presentations of real world phenomena graphically, in words and sentences, equations, tables and physical presentations, providing predictions about images. geometric drawing (Hendriana, 2018: 60).

In this case, mathematical communication is the student's ability to convey something not only in the form of sentences and words, but also in the form of pictures and scientific symbols in mathematics learning. To measure mathematical communication, indicators can be used, namely :

1. Ability to connect real objects, pictures, diagrams and tables into mathematical ideas
2. Ability to explain ideas, situations and mathematical relationships with real objects, pictures, graphs, tables and algebra
3. The ability to express events or ideas expressed through language terms or mathematical symbols (Aniswita and Handayani, 2017: 48).

Mathematical communication has an important role in mathematics learning as discovered by Asikin, including: a) Through mathematical communication mathematical ideas can be explored from various perspectives, b) Sharpening ways of thinking to improve the ability to see the relationship between mathematical content, c) To measure mathematical understanding, d) Organizing ways of thinking, e) Constructing mathematical knowledge, developing problem solving, improving reasoning, growing self-confidence, and improving social skills, and f) Developing critical, rational thinking, problem solving and social skills, through Writing and Talking (Hendriana, 2018: 60).

Mathematics communication is influenced by students' self-efficacy towards mathematics, this is supported by the opinion of Sariningsih and Purwasih who state that students who are less able to communicate mathematics are caused by a lack of self-efficacy related to the abilities they have. According to Hendriana and Kadarisma, to be able to communicate mathematics learning, students must have self-confidence regarding their abilities (Hendriana and Karisma, 2019: 155). This ability is included in the human part, namely self-efficacy. Self-efficacy is one thing that influences students' mathematical communication abilities (Andinny, 2022: 14-15).

Self-efficacy is a person's assessment of their own ability to carry out certain behaviors or achieve certain goals (Ormrod, 2008: 20). More simply, according to Somakin, self-efficacy is synonymous with "self-confidence" (Gilar, 2017: 26). Bandura stated that self-efficacy is a person's belief in his ability to organize and carry out a series of actions to achieve specified results (Hendriana, 2018: 211). According to Sihaloho, self-efficacy is a person's belief or confidence in their ability to successfully carry out certain tasks, overcome problems, and take actions necessary to achieve certain goals (Fitria and Handayani, 2020: 191).

It can be concluded that self-efficacy is the result of a belief or expectation about the extent to which an individual estimates his or her abilities from actions or carrying out tasks to achieve optimal or desired results. Self-efficacy can be measured with indicators, namely:

- The magnitude dimension, namely how students can overcome their learning difficulties
- The strength dimension, namely how high students' confidence is in overcoming their learning difficulties
- The generality dimension, which shows whether confidence in one's abilities will take place in a certain domain or apply in various kinds of activities and situations (Hendriana, 2018: 213).

Based on the results of observations carried out in February 2023 at the Sumatra Islamic Boarding School Thawalib Parabek in class VIII for girls, from these observations, researchers saw that most students in solving the mathematics problems given were still not optimal, this can be seen from the percentage results of the Daily Test (UH) scores semester 2.

Table 1. Percentage of Students' Daily Test Scores

Class	Amount	Percentage	
		≤ 75	> 75
VIII.8	30	96.67%	3.33%
VIII.9	31	90.32%	9.68%
VIII.10	30	86.67%	13.33%
VIII.11	31	90.32%	9.68%
VIII.12	31	90.32%	9.68%

Based on the results of the scoring that has been carried out, students are categorized based on the category of students' mathematical communication abilities. The categories of student mathematical communication are as follows:

Table 2. Mathematics Communication Score Result Category

Skala	Kriteria
85 – 100	Sangat Baik
65 – 84	Baik
55 – 64	Cukup
35 – 54	Kurang
0 – 34	Sangat Kurang

Based on the percentage results and looking at the scoring categories for students' mathematical communication abilities, it can be seen that students' mathematical communication abilities are still classified as very poor, scores exceeding 75 are only around 3.33% to 13.33%. One of the causes of low student scores is students' mathematical communication skills which are still lacking in solving the mathematical problems given.

Learning mathematics is a lesson that is difficult to understand, sometimes when the teacher explains in front of the class many students are still confused about what the teacher is explaining, and when working on mathematics problems there are still students who ask their friends because the students are still not sure. to the answers they make, and there are also students when working on daily test questions they make 2 answers on their answer sheet.

Then, from the results of the initial interview with one of the mathematics subject teachers, namely Ustadz Ilyas S.Pd, he said that in the learning process the focus was only on the teacher, and when the teacher asked the students whether the students understood or not, the students answered they understood but when given In practice, many students still ask their friends, and when working on the daily test questions given, students still have time to ask their friends because students are still not sure about their self-confidence, and there are also students who answer the daily test questions and make 2 answers because they still doubtful about the answer they made.

Based on the description above, mathematical communication skills are very important and need to be possessed by students in the mathematics learning process. One of the factors that helps students in solving the mathematics problems given is self-confidence. Based on this problem, the author is interested in conducting research entitled "The Influence of Self-efficacy on Students' Mathematical Communication Ability in Class VIII Girls at the Thawalib Parabek Sumatra Islamic Boarding School".

METHODS

This research uses quantitative correlational research as the investigation method. Correlational research is research that is intended to determine whether there is a relationship between two or several variables (Arikunto, 2014: 247). The nature of this research is *ex post facto*. *Ex post facto* research is an approach to research subjects in a natural way without any deliberate effort to provide treatment to bring out the variables you want to research (Dantes, 2012: 59).

Regarding the location of this research, the Sumatran Islamic Boarding School Thawalib Parabek. The population in the study were 153 female students of class VIII at the Sumatra Islamic Boarding School Thawalib Parabek. The sample in the study was 25% of the total population, namely 31 people.

The data sources in this research are divided into primary data and secondary data. Primary data came from class VIII Girls at the Sumatra Islamic Boarding School, Thawalib Parabek, which was the sample in this study and secondary data came from the mathematics teacher in class VIII, Girls at the Sumatran Islamic Boarding School, Thawalib Parabek.

In this research, questionnaires and tests were used to collect data. Self-efficacy data can be collected through questionnaires. The questionnaire is expressed in the form of positive statements and negative statements. The scale used is a Likert scale with five alternative answers, namely strongly agree, agree, neutral, disagree, strongly disagree (Riduwan, 2013: 87).

The next data collection technique uses tests. The test is used to collect data on students' mathematical communication abilities. The written test will be given in the form of an essay to determine students' mathematical communication skills. Before the research instrument is given to the sample, the instrument will be tested first and tested for validity and reliability.

And for data analysis techniques in this research, the first is testing the prerequisites for analysis, namely the normality test and the second is the hypothesis test. Hypothesis testing in this research uses correlation, coefficient of determination, regression equation, and

regression significance test. To strengthen the results of data analysis, this research used SPSS statistical software 26.

RESULT AND DISCUSSION

RESULT

Table 3. Results Data Description Self efficacy

Deskripsi	Nilai
Nilai Maksimum	94
Nilai Minimum	32
Mean	64,65
Median	65
Modus	72
Standar Deviasi	14,0797

From the questionnaire consisting of 20 items with a scale of 1-5, the highest score was 94 and the lowest score was 32. From the calculation results, the mean (average) was obtained at 64.65, the median (middle value) was 65, the mode was 72 and the standard deviation (standard deviation) of 14.0797. Determining the categories of research data refers to level categorization by classifying subjects into 5 categories, namely very high, high, medium, low, very low. The following are the results of student self-efficacy data :

SCORE	Interval	Kriteria	F	%
$Mi + 1,5 SDi < X$	$86 < X$	Very High	2	6,45%
$Mi + 0,5 SDi < X \leq Mi + 1,5 SDi$	$72 < X \leq 86$	High	7	22,58%
$Mi - 0,5 SDi < X \leq Mi + 0,5 SDi$	$58 < X \leq 72$	Medium	11	35,48%
$Mi - 1,5 SDi < X \leq Mi - 0,5 SDi$	$44 < X \leq 58$	Low	10	32,26%
$X \leq Mi - 1,5 SDi$	$X \leq 44$	Very Low	1	3,23%
Amount			31	100

From the table above, it can be concluded that class VIII female students at the Sumatra Islamic Boarding School Thawalib Parabek have very low self-efficacy as many as 1 student with a percentage of 3.23%, low self-efficacy as many as 10 students with a percentage of 32.26%, moderate self-efficacy as many as 11 students with a percentage of 35.48%, high self-efficacy of 7 students with a percentage of 22.58%, and very high self-efficacy of 2 students with a percentage of 6.45%. So it can be concluded that the self-efficacy of class VIII female students at the Thawalib Parabek Sumatra Islamic Boarding School tends to be moderate.

Table 4. Results Data Description Mathematical Communication Ability

Deskripsi	Nilai
Nilai Maksimum	100
Nilai Minimum	17
Mean	13,42

Median	11
Modus	22
Standar Deviasi	6,57

From the test questions consisting of 6 items, the highest score was 100 and the lowest score was 17. From the calculation results, the mean (average) was obtained at 13.42, the median (middle value) at 11, the mode at 22 and the standard deviation (standard deviation).) of 6.57. For mathematical communication skills, it is seen from the perspective of completeness. The following is data on students' completeness scores:

No	KKM	Frekuensi		Kategori
		Absolut	Relatif	
1	< 75	20	65%	Tidak Tuntas
2	≥ 75	11	35%	Tuntas
Jumlah		31	100%	

From the table above, it can be concluded that there were 20 female students in class VIII at the Sumatra Islamic Boarding School Thawalib Parabek who got a score of < 75 (incomplete) with a percentage of 65% and students who got a score of ≥ 75 (completed) were 11 students with a percentage of 35%.

1. Uji Prasyarat

Table 5. Normality test

	L ₀	L _{tabel}	Ket
<i>Self efficacy</i>	0,0862	0,1591	Berdistribusi normal
Kemampuan Komunukasi Matematika	0,1437	0,1591	Berdistribusi normal

For the 32 samples in this study, the results of the normality test were calculated manually at a real level of 0.05, obtaining L₀ from each variable, namely for self efficacy the value of L₀ = 0.0862 while the value of L_{tabel} = 0.1591, because L₀ < L_{tabel}, data normally distributed. And for the mathematical communication ability variable, the value of L₀ = 0.1437 while the value of L_{tabel} = 0.1591, because L₀ < L_{tabel}, the data is normally distributed.

Table 6. Linearity Test

Variabel	F	Sig	Ket
X dengan Y	2,219	0,110	Linier

Regarding the influence of self-efficacy on students' mathematical communication skills in the linearity test in class VIII for girls at the Thawalib Parabek Sumatran Islamic Boarding School, it shows an F value of 2.324 with a significance of 0.110. Interpretation of linearity test results is carried out by:

H₀: Linear regression variable

H1: The regression variable is not linear

Determine the F_{table} value = 2.7228 at a significance level of 5%.

The results of the analysis show that $F_{count} (2.219) < F_{table} (2.7228)$ and the significance is $0.123 > 0.05$, so it can be concluded that there is a linear relationship between self-efficacy and students' mathematical communication abilities.

2. Uji Hipotesis

Table 7. Simple Correlation Coefficient

	Pearson Correlation	Sig. (2- tailed)
<i>Self efficacy</i>	0,555	0,001
Kemampuan Komunikasi Matematika	0,555	0,001

The calculation results reveal that the influence between self-efficacy and students' mathematical communication skills is 0.555 or $r_{xy} = 0.555$. The coefficient has a positive sign, so it can be concluded that the direction of the influence of self-efficacy (X) on students' mathematical communication skills (Y) is positive.

Table 8. Simple Determination Coefficient

Model	R	R Square
1	0.555	0.308

Based on the calculation results, the r_{xy} value = 0.555, so the coefficient of determination or $KD = 30.80\%$.

Table 9. Simple Regression Equation

Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	-3.312	4.664
	<i>Self efficacy</i>	,259	.071

The regression equation for students' self-efficacy and mathematical communication skills is $y = -3.295 + 0.259x$. This simple regression equation is translated:

The constant $a = -3.295$, which means that the consistent value of the mathematical communication ability variable (Y) is -3.295.

Koefisien regresi X sebesar 0,259 menyatakan bahwa setiap penambahan 1% nilai self efficacy, maka nilai hasil belajar akan bertambah/meningkat.

Table 10. Regression Significance Test

Model	T	Sig
1	3.587	.001

After carrying out the calculations, the t_{count} value = 3.5836 and the t_{table} value = 1.699. Because $t_{count} (3.5836) > t_{table} (1.699)$, it can be concluded that there is an influence of

self-efficacy on the mathematical communication skills of class VIII female students at the Thawalib Parabek Sumatra Islamic Boarding School.

DISCUSSION

The aim of this research is to determine whether there is an influence between self-efficacy and the mathematical communication skills of class VIII female students at the Thawalib Parabek Sumatra Islamic Boarding School. The population in the study were 153 female students of class VIII at the Sumatra Islamic Boarding School Thawalib Parabek. The sample in the study was 25% of the total population, namely 31 people.

Two data related to the self-efficacy and mathematical communication abilities of class VIII female Islamic boarding school students in Sumatra Thawalib Parabek were obtained from research findings. Questionnaires are used to collect self-efficacy data, while tests are used to collect data on students' mathematical communication abilities.

The first data, namely self-efficacy, was obtained through a questionnaire containing 20 items, where the items were divided into positive items and negative items. The scale used is a Likert scale, namely always (Sl), often (Sr), sometimes (K), rarely (Jr) and never (TP). For positive item scores, namely $S = 5$, $Sr = 4$, $K = 3$, $Jr = 2$, and $TP = 1$. For negative item scores, namely $Sl = 1$, $Sr = 2$, $Kd = 3$, $Jr = 4$, and $Tp = 5$. And the second data, namely mathematical communication skills, was obtained through a mathematical communication ability test, where the test questions contained 6 questions.

From the research results, it can be concluded that the eighth grade female students of the Sumatra Islamic Boarding School Thawalib Parabek have very low self-efficacy as many as 1 student with a percentage of 3.23%, low self-efficacy as many as 10 students with a percentage of 32.26%, moderate self-efficacy as many as 11 students with a percentage of 35.48%, high self-efficacy of 7 students with a percentage of 22.58%, and very high self-efficacy of 2 students with a percentage of 6.45%. So it can be concluded that the self-efficacy of class VIII female students at the Thawalib Parabek Sumatra Islamic Boarding School tends to be moderate.

And from mathematical communication skills, it can be concluded that there were 20 female students in class VIII at the Sumatra Islamic Boarding School Thawalib Parabek who got a score < 75 (incomplete) with a percentage of 65% and students who got a score ≥ 75 (completed) were 11 students with a percentage of 35%.

Furthermore, for the simple correlation coefficient, the influence between self-efficacy and students' mathematical communication abilities is 0.554 or $r_{xy} = 0.554$. The coefficient with a positive sign indicates that the correlation between self-efficacy and mathematical communication abilities is a positive correlation. If the value of the self-efficacy variable increases, the value of the mathematical communication ability variable will increase, and vice versa. The results of this research are in accordance with research conducted by Hendriana and Kadarisma which shows that there is a positive relationship between self-efficacy and mathematical communication skills.

And for the significance of simple regression, the t_{count} value = 3.5836 and the t_{table} value = 1.699. Because $t_{count} (3.5836) > t_{table} (1.699)$, it can be concluded that there is an influence of self-efficacy on the mathematical communication skills of class VIII female students at the Thawalib Parabek Sumatra Islamic Boarding School.

The hypothesis put forward regarding the influence of self-efficacy on the mathematics communication abilities of class VIII female students at the Thawalib Parabek Sumatran Islamic Boarding School shows that there is an influence of self-efficacy on students' mathematical communication abilities which are relatively low. This is obtained from the simple

coefficient of determination (KD) where the coefficient of determination or $KD = 30.69\%$. From the KD results, it can be concluded that student self-efficacy has an influence of 30.69% on students' mathematical communication skills, while the rest is influenced by other factors.

The level of mathematical communication ability can be influenced by various factors, one of which is self-efficacy. This is in accordance with what Hendriana and Kadarisma expressed that to be able to communicate mathematics learning, students must have self-confidence regarding their abilities. This ability is included in the human part, namely self-efficacy. Self-efficacy is one thing that influences students' mathematical communication skills.

From the discussion above, it can be concluded that there is an influence of self-efficacy on the mathematical communication skills of class VIII female students at the Thawalib Parabek Sumatra Islamic Boarding School.

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