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The Influence of Academic Self-Efficacy and Peer Support on Students' Learning Motivation in Mathematics

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ABSTRACT

Purpose of the study: This study is to examine the influence of academic self-efficacy and peer support on students' learning motivation in mathematics among junior high school students. It aims to identify whether academic self-efficacy and peer relationships contribute to increasing learning motivation in mathematics both partially and simultaneously.

Methodology: This study using a quantitative approach with an ex post facto design involving 345 junior high school students selected through simple random sampling. Data were collected using standardized academic self-efficacy, peer support, and learning motivation scales. The data were analyzed using simple linear regression and multiple linear regression through SPSS version 27 to determine the magnitude and significance of the relationships.

Main Findings: The findings revealed that academic self-efficacy and peer support both have significant positive effects on students' learning motivation in mathematics. Academic self-efficacy emerged as the strongest predictor, while peer support acted as an important factor enhancing students' learning motivation in mathematics. Simultaneously, both variables explained a substantial portion of the variance in mathematics learning motivation.

Novelty/Originality of this study: This study shows that motivation to learn mathematics can be influenced by academic self-efficacy and peer support. It is important for teachers to involve peers in the learning process and providing valuable insights for guidance and counseling teachers to foster supportive and confidence-building learning conditions.

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1. INTRODUCTION

Education is capable of sustaining the life of a nation and striving to achieve optimal change for students [1]. The urgency of national education is to develop students' abilities as individuals who have faith in God, possess knowledge and noble character, are independent and creative, and are citizens who uphold the values of democracy and responsibility [2]. In the process of implementations, education cannot be separated from learning activities. The learning process is the core activity in the implementation of education in schools [3]. Success in learning activities does not only come from the curriculum implemented or the learning methods provided. But is also closely related to students' internal and external psychological conditions that influence their engagement and persistence in learning activities.

Students have a significant role in determining the implementation and success of learning activities [4]. In these learning activities, students will succeed if they have desire or drive within themselves. Students who have

strong desire or drive will be more diligent and disciplined in their studies. This desire or drive is known as motivation [5].

Etymologically, the word "motive" in motivation means encouragement, will, or desire. Uno [6] explains that learning motivation is an internal and external drive when students seek knowledge in order to create behavioral changes, which are aided by several indicators. In learning activities, motivation can be a factor that influences student success. Learning motivation will give students the energy to face and find solutions to achieve their desired goals. Motivation can consistently encourage students to achieve their goals despite various obstacles. One subject that often becomes an obstacle for students in their learning activities at school is mathematics. Mathematics is a core subject taught in school. Learning mathematics is one of the necessities in life like eat, breathe, and live [7].

Students must have high motivation to learn so that their mathematics learning activities can run optimally [8]. However, the fact is that motivation to learn mathematics remains a crucial topic in education globally. This is in line with information from the 2022 Programme for International Student Assessment (PISA) that mathematics anxiety is very high among countries with low mathematics abilities. The 17 countries with the highest anxiety levels in PISA 2022 have below-average abilities in mathematics [9]. The 2022 PISA results also mention that it is necessary to foster a positive attitude with a good mindset to help students overcome their anxiety. One way to do this is by fostering motivation to learn [10].

Indonesia is one of the countries experiencing this. Contrary to the importance of mathematics, until now, mathematics learning activities have not had a significant impact on a national or international scale. This is due to many factors [11]. One of them is related to low learning motivation in mathematics lessons. The negative perception of mathematics as a challenging and unpopular subject causes many students to avoid it [12].

The low learning motivation of these students will have an impact on their mathematical abilities. This is in accordance with the Ministry of Education, Culture, Research and Technology's PISA 2022 data on December 5, 2023, which shows that Indonesia still ranks 70th out of 81 countries in the world that participated in mathematical literacy. Based on the results, only 18% of students reachead a minimum of level 2 in mathematics, significantly lower than the average of 69% in other countries. Besides that, almost none of the students in Indonesia performed exceptionally well in mathematics, meaning they achieved level 5 or 6 in the PISA mathematics test [9]. This situation is partly caused by the low motivation to learn mathematichs that most students in Indonesia still have.

This situation is even more worrying when linked to the latest policy in national education. Based on the Regulation of the Minister of Primary and Secondary Education No. 9 of 2025 concerning the implementation of the Academic Ability Test (TKA) as a replacement for the National Examination (UN), mathematics is once again the subject that is the main benchmark in assessing students' overall academic ability. This can be interpreted to mean that the government is once again emphasizing mathematical proficiency as one of the important indicators for determining student success in education. This means that mathematics plays an important role in assessing students' readiness to advance their education to the next level. Therefore, improving students' motivation to learn mathematics becomes an urgent issue not only in pedagogical practice but also in responding to current national education policies.

The fact that many students still tend to avoid and lose motivation to learn mathematics is a crucial problem in the field of student learning that needs to be addressed and given more attention. The perception that mathematics is a frightening, difficult to understand, and confusing subject is still deeply ingrained in students, which affects their low motivation in mathematics. Students' low motivation to learn will affect their efforts in learning mathematics. In the long term, this can have a negative and serious impact on students' abilities and academic achievement gaps.

The appearance of learning motivation in students can be effected by various internal and external factors during the learning process. One of these factors is the self-efficacy possessed by each student. Self-efficacy is the result of a series of cognitive decisions, beliefs, or expectations regarding the extent to which a person believes they have the potential to complete a task or strategy needed to achieve the expected results [13]. Self-efficacy indicates a person's confidence in their potential for succeed in their tasks, which greatly influences their behavior and learning outcomes [14].

In the educational environment, self-efficacy is often described by the concept of Academic Self-efficacy [15]. Academic self-efficacy developed from the concept of self-efficacy [13]. According to Zajacova, academic self-efficacy is a concept that leads to students' belief in their abilities when doing academic tasks such as tests and writing papers [16]. Students will be more motivated to complete their tasks when they have confidence in their ability to complete them. If students have low academic self-efficacy, they will not be motivated to study [17]. Self-efficacy contributes substantially to student success in mathematics [18]. Research results state that academic self-efficacy affects learning motivation. This is especially evident in students' mathematics subjects [19].

During the learning process at school, students cannot be separated from their friends. In the school environment, social interactions arise in relation to friendships between students [1]. Many students rely on their peers to help them grow and mature emotionally [20]. Social support is a form of comfort, caring attitude, and

assistance that a person receives from their peers or other groups [21]. Friendships among peers can be an important support system to foster collaboration, sharing some knowledge, and inspire motivation among students [22].

Peer relationships have been known as an influential factor in adolescent school activities [23]. When friends influence each other, it can affect how much students enjoy learning and how well they do in school [20]. By understanding how peers can influence learning motivation, we can make schools more welcoming places and help students enjoy learning and excel in their studies. The results of the study state that peer support can influence their learning motivation in mathematics. Students who understand the importance of academic achievement can influence other students [24]. However, although previous studies have discussed academic self-efficacy, peer support, and learning motivation separately, empirical research that simultaneously examines the influence of academic self-efficacy and peer support on students' motivation to learn mathematics at the junior high school level, particularly in the Indonesian context, remains limited. This indicates a research gap that needs to be addressed.

Along with that, based on the findings from observations and interviews with guidance and counselling teacher, there is a phenomenon related to several behaviors that reflect low motivation to learn mathematics among students at school. This behavior is characterized by students who often do not do their math homework and leave class during math lessons. Based on information from mathematics teachers, students also skip school on certain days just to avoid mathematics lessons. This is reinforced by the results of a survey i conducted with students through Google Forms. This survey revealed that mathematics is the least favorite subject and tends to be avoided by students at school, with a percentage of 34,7%. The phenomenon of lack of motivation in mathematics is considered serious and important because it can cause other problems in learning and hinder the overall development of students' potential.

Based on the research gap and empirical conditions described above, this study is considered important to conduct. As explained in the background, this study aims to examine the influence of academic self-efficacy and peer support on student motivation to learn mathematics in junior high school. The novelty of this study lies in its integrated analysis of internal psychological factors (academic self-efficacy) and external social factors (peer support) in influencing students' motivation to learn mathematics, supported by empirical data from junior high school students in Surabaya.

2. RESEARCH METHOD

2.1. Research Design

This study employs a quantitative approach with an ex post facto design. In this design, the study aims to examine the causal relationship where the independent variables are not treated by the researcher [25]. The researcher links two independent variables, are academic self-efficacy and peer support, and one dependent variable, is learning motivation in mathematics.

2.2. Research Subject

The population used by the researcher was all students in three junior high schools in the city of Surabaya, totaling 2.534 students. The sampling was conducted using the simple random sampling technique using the Slovin formula with a significance level of 5%. Simple random sampling is the selection of sample members at random from a selected population [25]. From the results, a sample size of 345 students was obtained.

2.3. Research Instruments

Researchers used four scales as instruments in this study. The academic self-efficacy scale was designed from four sources of self-efficacy according to Bandura [26] with 26 items. The peer support scale was designed based on five aspects according to Sarafino [27] with 28 items. The learning motivation in mathematics scale was designs based on two types of learning motivation according to Uno [6] with 20 items. Several items in each variable scale can be found in Table 1, Table 2, and Table 3.

Table 1. Academic Self-Efficacy Scale

Variable	Item
Academic Self-Efficacy	I obtain high scores in mathematics examinations.
	I am able to recover quickly after failing a mathematics examination.
	I feel physically energized and able to concentrate during mathematics lessons.

Table 2. Peer Support Scale

Variable	Item
Peer Support	When I receive a low examination score, my peers provide emotional support.
	I feel comfortable when I am with my peers.
	My peers are willing to explain formulas to help me solve problems that I do not understand.

Table 3. Learning Motivation In Mathematics Scale

Variable	Item
Learning motivation in mathematics	I enjoy completing practice exercises in order to succeed in examinations. I consistently review the material taught by the teacher when studying at home. My peers give me positive feedback when I apply effective calculation strategies.

2.4. Data Analysis

The data will be analyzed both descriptively and inferentially. Before that, it is important to conduct a classical assumption test, which includes a normality and linearity test. The normality test in this study utilizes the One Sample Kolmogorov-Smirnov Test at a significance level of 0.05. If the significance is > 0.05, the data is declared to be normally distributed [28]. Meanwhile, the linearity test in this study utilizes the sig. Deviation from linearity value with a value of 0.05. If the sig. Deviation from linearity value is > 0.05, there is a linear relationship between the variables. The researcher performed calculations based on the Anwar and Mardiana guidelines [29] to obtain descriptive data on each variable in the study. The interpretation of the variables was simplified by grouping the results into three categories, namely low, medium, and high. The analysis techniques applied in this study are simple linear regression analysis and multiple linear regression analysis with SPSS version 27. The results of the normality test and linearity test can be found in Table 4 and Table 5.

Table 4. Normality Test

Variable	Sig.	Significance Level	Conclusion
Academic self-efficacy with learning motivation in mathematics	0.200	0.05	Normally distributed
Peer support and learning motivation in mathematics	0.200	0.05	Normally distributed
Academic self-efficacy and peer support with learning motivation in mathematics	0.200	0.05	Normally distributed

Table 5. Linearity Test

Variable	Sig. (Deviation from Linearity)	Significance Level	Conclusion
Academic self-efficacy with learning motivation in mathematics	0.275	0.05	Linear
Peer support and learning motivation in mathematics	0.203	0.05	Linear

3. RESULTS AND DISCUSSION

3.1. Results

From the three variables in the study, each variable can have descriptive analysis that includes the mean value, minimum value, maximum value, range, and standard deviation value. The results of these calculations use SPSS version 27. The analysis results can be found in the following table.

Table 6. Statistical Description

Variable	N	Range	Min	Max	Mean	SD
Learning Motivation in Mathematics	345	39	41	80	62.6348	7.40600
Academic Self-Efficacy	345	54	50	104	71.5246	10.19462
Support from Friends	345	58	54	112	87.0174	12.57765

Based on Table 6, it can be seen that the average value for the learning motivation variable in mathematics is 62.6348 with a standard deviation of 7.40600. For the academic self-efficacy variable, it can be seen that the average value is 71.5246 with a standard deviation of 10.19462. As for the peer support variable, it can be seen that the average value is 87.0174 and the standard deviation is 12.57765.

The results of the overall categorization of each variable are as follows.

Table 7. Descriptive Learning Motivation in Mathematics

Category	Value Range	Number of Students	Percentage (%)
Low	$X < 55.228$	55	15.9
Medium	$55.228 \leq X \leq 70.040$	241	69.9
High	$X > 70.040$	49	14.2

Based on Table 7, it can be seen that motivation in learning mathematics in the low category was experienced by 55 respondents with a percentage of 15.9%. Besides that, the medium category was experienced by 241 respondents with a percentage of 69.9%. Meanwhile, the high category was experienced by 49 respondents with a percentage of 14.2%.

Table 8. Descriptive Academic Self-Efficacy

Category	Value Range	Number of Students	Percentage (%)
Low	X < 61.329	55	15.9
Medium	61.329 ≤ X ≤ 81.719	238	69.0
High	X > 81.719	52	15.0

Based on Table 8, it can be seen that academic self-efficacy in the low category was experienced by 55 respondents with a percentage of 15.9%. Besides that, the medium category was experienced by 238 respondents with a percentage of 69%. Meanwhile, the high category was experienced by 52 respondents with a percentage of 15%.

Table 9. Descriptive Peer Support

Category	Value Range	Number of Students	Percentage (%)
Low	X < 74.439	62	18.0
Medium	74.439 ≤ X ≤ 99.595	216	62.6
High	X > 99.595	67	19.4

Based on Table 9, it can be seen that low peer support was experienced by 62 respondents with a percentage of 18%. Besides that, the medium category was experienced by 216 respondents with a percentage of 62.6%. Meanwhile, the high category was experienced by 67 respondents with a percentage of 19.4%.

Table 10. Simple Linear Regression Analysis (X1) and (Y)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
1. (Constant)	31.021	2.249		13.794	0.000
Academic Self-Efficacy	0.442	0.031	0.608	14.198	0.000

Based on the results in Table 10, the following linear equation can be determined:

$Y = 31.021 + 0.442X$

This shows that if the academic self-efficacy variable is considered constant or 0, then the motivation to learn mathematics is 31.021. The table also shows that the regression coefficient value for the academic self-efficacy variable (X1) is 0.442. This means that every 1 unit increase in academic self-efficacy will cause a 0.442 increase in motivation to learn mathematics. The results in the table also show that the calculated $t_{value} = 14.198 > t_{table} = 1.649$ with a significance level of $0.000 < 0.05$, indicating that H_0 is rejected and the alternative hypothesis H1 is accepted. It can be concluded that there is a positive and significant influence between academic self-efficacy and learning motivation in mathematics among junior high school students. The extent of the contribution of the academic self-efficacy variable to learning motivation in mathematics can be determined based on the coefficient of determination.

Table 11. Results of the Coefficient of Determination (X1) to (Y)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.608[a]	0.370	0.368	5.88609
a Predictors: (Constant): Academic Self-Efficacy				

Based on Table 11, it is known that the coefficient of determination is 0.370. This suggests that the contribution of the academic self-efficacy variable to learning motivation in mathematics is 37%.

Table 12. Simple Linear Regression Analysis (X2) and (Y)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
1 (Constant)	34.639	2.341		14.796	0.000
Peer Support	0.322	0.027	0.546	12.082	0.000

Based on the results in Table 12, the linear equation can be determined as follows:

$Y = 34.639 + 0.322X$

This shows that if the peer support variable is considered constant or 0, then the motivation to learn mathematics is 34.639. The table also shows that the regression coefficient value for the peer support variable (X2) is 0.322. This means that every 1 unit increase in peer support will cause a 0.322 increase in motivation to learn mathematics. The results in the table also show that the calculated $t_{value} = 12.082 > t_{table} = 1.649$ with a significance level of $0.000 < 0.05$, which indicates that H_0 is rejected and H_1 is accepted. It can be concluded that there is a positive and significant influence between peer support and learning motivation in mathematics among junior high school students. The extent of the contribution of the peer support variable to learning motivation in mathematics can be determined based on the coefficient of determination.

Table 13. Results of the Coefficient of Determination (X2) to (Y)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.546[a]	0.299	0.296	6.21180
a Predictors: (Constant): Peer Support				

Based on Table 13, it is known that the coefficient of determination is 0.299. This suggests that the contribution of the peer support variable to learning motivation in mathematics is 29.9%.

Table 14. Multiple Linear Regression Analysis (X1) and (X2) to (Y)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
1 (Constant)	20.903	2.421		8.635	0.000
Academic Self-Efficacy	0.333	0.032	0.458	10.515	0.000
Peer Support	0.206	0.026	0.350	8.022	0.000

Based on the results in Table 14, the following linear equation can be determined:

$Y = 20.903 + 0.333X_1 + 0.206X_2$

This shows that if the variables academic self-efficacy (X1) and peer support (X2) are considered constant or 0, then the motivation to learn mathematics is 20.903. The table also shows that the regression coefficient value for X1 is 0.333. This means that for every 1 unit increase in X1, with X2 considered constant or 0, there will be an increase of 0.333 in learning motivation in mathematics. If X2 increases by 1 unit and X1 is considered constant or 0, it will cause an increase of 0.206 in learning motivation in mathematics.

Table 15. F Test Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8866.469	2	4.433.235	151.594	.000[b]
	Residual	10001.513	342	29.244		
	Total	18867.983	344			

The results in the Table 15 show that the f value = 151.594 > table f = 3.02 with a significance level of $0.000 < 0.05$, indicating that H_0 is rejected and H_1 is accepted. It can be concluded that there is a positive and significant influence between peer support and learning motivation in mathematics for students in junior high school. The extent of the contribution of the variables of academic self-efficacy and peer support to learning motivation in mathematics lessons can be determined based on the coefficient of determination.

Table 16. Results of the Coefficient of Determination (X1) and (X2) to (Y)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.686[a]	0.470	0.467	5.400779

Based on Table 16, it is known that the coefficient of determination is 0,470. This suggests that the contribution of the variables of academic self-efficacy and peer support to learning motivation in mathematics is 47%.

3.2. Discussion

According to the study conducted by the researcher, the results are in accordance with the research objectives described earlier. From the study's result, show that the variable of academic self-efficacy has a positive and significant effect on learning motivation in mathematics. This can be explained by the fact that the higher a person's academic self-efficacy, the higher their learning motivation in mathematics. Conversely, if a person has low academic self-efficacy, they will also have low learning motivation in mathematics. These findings indicate that students' beliefs in their academic abilities play a decisive role in shaping their motivation to engage in mathematics learning tasks. Students who believe they are capable of succeeding tend to demonstrate greater

persistence, effort, and enthusiasm when facing mathematical challenges, while those with low confidence are more likely to disengage from learning activities.

The results of this study are supported by research conducted by Nazareth-Tanaid and Osic [19], which demonstrates that all indicators of academic self-efficacy significantly influence students' motivation to learn mathematics. This finding indicates that an increase in students' academic self-efficacy is consistently followed by an increase in their motivation to engage in mathematics learning. Similarly, the findings of this study are reinforced by the research of Nita and Agustika [5], who reported that self-efficacy plays a substantial role in shaping students' learning motivation. Overall, these results are consistent with previous studies in emphasizing the strong contribution of academic self-efficacy to learning motivation; however, compared to earlier research that primarily focused on the magnitude of influence, this study further highlights academic self-efficacy as a psychological foundation that sustains students' motivation in mathematics learning contexts.

Academic self-efficacy is a main component possessed by students. In counseling, this variable is related to student academic achievement [30]. Students in school need academic self-efficacy as a form of belief in their potential to achieve the results they desire. Students will be more motivated to complete their tasks when they have confidence in their ability to complete them. If students' academic self-efficacy is low, it will make them unmotivated during learning [17]. This is no exception in learning activities in mathematics lessons.

Students' academic self-efficacy can potentially improve [31]. It is important for them to know how to develop academic self-efficacy. According to Bandura [26] a person's academic self-efficacy can grow from four sources. The first is mastery experience. When someone experiences success, they will not easily forget it. Therefore, academic self-efficacy can increase through their mastery experiences. In addition, the vicarious experiences can also be a source of increasing academic self-efficacy. By seeing the successful experiences of others, a person can be confident in achieving their goals.

Social persuasion from those closest to them can also be a source of fostering academic self-efficacy. These messages can make a person more confident in their abilities. It is also necessary to pay attention to a person's emotional and physiological state. This is because their emotional and physiological conditions can affect their abilities in different situations. Maintaining emotional and physiological conditions can foster academic self-efficacy. These theoretical explanations support the empirical findings of this study and suggest that strengthening academic self-efficacy requires systematic efforts from both teachers and the school environment, particularly through structured learning experiences, positive feedback, and emotional support.

The findings also show that peer support has a positive and significant effect on learning motivation in mathematics. This can be explained by the fact that the more peer support a person has, the higher their motivation to learn mathematics. Conversely, if someone has low peer support, they will also have low motivation to learn mathematics. This means that the variable of peer support has an influence in helping students to further increase their motivation to learn mathematics.

The study's result are supported with the research by Mean [24] which states that peers are better able to connect with students. This can then be used to motivate their peers in learning activities in mathematics. Peers are also one of the factors that influence the academic activities of adolescents [23]. The study's result are also supported by the results of research by Alvarez et al. [20], if students are positively influenced through positive interactions with their friends at school, they will also be motivated in their learning activities through peer support. Meanwhile, negative peer influence, such as peer pressure, will also negatively affect their learning motivation. These findings are in line with previous studies that emphasize the dual role of peer relationships as either supportive or detrimental to learning motivation. In contrast to studies that only highlight peer pressure, this study emphasizes the constructive role of peer support in enhancing motivation to learn mathematics.

The study also found that the variables of academic self-efficacy and peer support simultaneously have a positive and significant effect on learning motivation in mathematics. This means that the higher a person's academic self-efficacy and peer support, the higher their learning motivation in mathematics. The emergence of learning motivation in students can be influenced by various things from within and outside themselves during the learning process. One of them is the academic self-efficacy by each student. If the academic self-efficacy by students is low, it will make them unmotivated during learning [17]. This is no exception in mathematics learning activities. The novelty of this study lies in its simultaneous examination of internal psychological factors (academic self-efficacy) and external social factors (peer support) in influencing learning motivation in mathematics. Unlike previous studies that examined these variables separately, this study integrates both dimensions within a single analytical framework.

During the learning process at school, students cannot be separated from their friends. In the school environment, social interactions arise in relation to friendships between students [1]. Friendships among peers can be an important support system to facilitate collaboration, mutual learning, and motivation among students [22]. By understanding how peers can influence learning motivation, we can make schools more welcoming and supportive environments for students, making it easier for them to enjoy learning and excel in their studies. This includes learning activities in mathematics.

This study confirms that teachers have a crucial role in developing an atmosphere for learning mathematics that builds students' confidence. Teachers can provide assessments to identify the different levels of difficulty experienced by students in mathematics [32]. Students who have not yet reached their ideal level of ability in mathematics need special assistance. In this case, guidance and counseling teachers can assist students with psychological aspects, especially in managing fears and negative perceptions of mathematics. It is hoped that students can continue to increase their motivation to learn mathematics. Findings of this study can be generalized to suggest that strengthening academic self-efficacy and peer support simultaneously is essential for enhancing students' motivation to learn mathematics. These results imply that educational interventions should focus not only on cognitive aspects but also on psychological and social dimensions to achieve sustainable improvements in students' mathematics learning motivation.

Based on these findings, it is recommended that schools implement learning strategies that systematically strengthen students' academic self-efficacy through positive feedback, differentiated instruction, and opportunities for successful learning experiences, while also fostering supportive peer interactions through collaborative and cooperative learning models. In addition, guidance and counseling services should be integrated more closely with classroom instruction to address students' emotional barriers toward mathematics learning. For further research, it is recommended to examine other psychological and contextual variables, such as mathematics anxiety, self-regulated learning, or teacher support, as well as to employ longitudinal or mixed-method approaches to better understand how academic self-efficacy and peer support develop over time and influence students' motivation to learn mathematics.

4. CONCLUSION

Based on the study results and discussion, it can be concluded that the two independent variables, namely academic self-efficacy and peer support, have a positive and significant influence on learning motivation in mathematics lessons, both partially and simultaneously. This conclusion directly addresses the objective of the study, which was to examine the influence of academic self-efficacy and peer support on students' motivation to learn mathematics. The findings indicate that students who have stronger confidence in their academic abilities and who receive positive support from their peers tend to demonstrate higher motivation to engage in mathematics learning activities. In other words, higher academic self-efficacy and stronger peer support are associated with increased motivation to learn mathematics among students.

Based on these findings, it is recommended that teachers and schools focus on developing learning environments that strengthen students' academic self-efficacy through constructive feedback, supportive instructional practices, and learning activities that allow students to experience success. In addition, encouraging positive peer interactions and collaborative learning can help foster students' motivation to learn mathematics.

Future research is recommended to investigate other psychological and social factors that may influence motivation in mathematics learning, such as learning anxiety, self-regulated learning, or teacher support. Further studies may also apply different research designs or broader samples to deepen understanding of how these factors interact over time.

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