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The Influence of Emotional Intelligence, Self-Efficacy, and Independence in Learning with Moderating Variables Teacher's Leadership to Improve Mathematics Learning Outcomes

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Abstract

This study is based on the low mathematics achievement scores in fractions obtained by students and previous research findings that show inconsistent results regarding the relationship between emotional intelligence, self-efficacy, learning independence, and learning outcomes. Learning outcomes are influenced by both internal and external factors. The internal factors include emotional intelligence, self-efficacy, and learning independence, while the external factor is the role of the teacher leadership. The purpose of this study is to examine the effect of emotional intelligence, self-efficacy, and learning independence on students' learning outcomes and to test the effect of emotional intelligence, self-efficacy, and learning independence on mathematics achievement in fractions through the role of the teacher leadership as a moderating variable.

The population in this study consists of fourth-grade students from 4 elementary schools in Pangkah sub-district that have a teacher leadership in their institution, with a sample size of 100 respondents using purposive sampling. Data collection was carried out by distributing questionnaires and documentation. The data analysis technique used is moderation regression analysis with a significance level of 5%.

The results of the study show that emotional intelligence has a positive and significant effect on mathematics learning outcomes, with a t-value of 3.302 and p = 0.001, which is smaller than 0.05. Self-confidence also has a positive and significant effect on mathematics learning outcomes, with a t-value of 3.268 and p = 0.002. Since p < 0.05, learning independence has a positive and significant effect on learning outcomes with a t-value of 2.096 and p = 0.039. The role of the teacher leadership has a positive effect on learning outcomes, with a t-value of 2.572 and p = 0.012, which is smaller than 0.05. The results of the moderation regression analysis show that emotional intelligence has a positive and significant effect on mathematics achievement in fractions through the moderating variable of the teacher leadership with a t-value of 2.880 and p = 0.005, p < 0.05. self-efficacy also affects mathematics learning outcomes through the teacher's leadership role as a moderating variable with a t-value of 3.028 and p = 0.003, and learning independence affects mathematics learning outcomes through the teacher's leadership role as a moderating variable with a t-value of 2.496 and p = 0.014, p < 0.05.

Based on the research findings, it can be concluded that emotional intelligence, self-efficacy, and learning independence have a positive and significant direct effect on mathematics learning outcomes in fractions. Furthermore, with the role of the teacher as a change agent, emotional intelligence, self-confidence, and learning independence significantly influence mathematics learning outcomes in fractions.

Keywords: *emotional intelligence, learning independence, self-efficacy, the role of teacher leadership, mathematics learning outcomes*

INTRODUCTION

The construct of students' understanding of the concept of fractions is very important for basic mathematics education, because from a cognitive perspective, fractions involve many things that transform students' understanding from the concrete understanding phase to the semi-concrete understanding phase. School students in the fourth grade of elementary school should have mastered and understood fractions as consecutive numbers, because that is one of the fundamental properties of fractional numbers. Mastering and understanding this means that students are able to solve

problems related to fractions and are able to carry out number operations with fractions. This mastery and understanding also indicates that students have good numerical thinking with important components, such as division, measurement and comparison. Learning according to Bloom includes three main domains: cognitive, which includes the ability to think from remembering to creating; affective, which focuses on developing attitudes, values, and emotions; and psychomotor, which includes motor and physical skills such as perception and coordination. With this gradual and structured approach, learning is focused on overall individual development, covering intellectual, emotional and physical aspects, as well as providing clear guidance in educational planning and evaluation (Magdalena et al., 2020). Based on the literature, factors that have also been researched to relate to students' poor mathematics learning outcomes are psychological factors, such as emotional intelligence, self-confidence, and learning independence. Emotional intelligence can influence student learning outcomes because emotional intelligence plays a role in managing emotions which are directly related to academic abilities (Hidayat et al., 2023). Meanwhile, emotional intelligence has a positive influence on student learning outcomes (Nafisah & Ansori, 2022). Bandura explains that *self-efficacy*, which is part of self-confidence, has a major impact on how students set goals, face challenges, and persevere in difficult situations. If students are interested or like a subject, they tend to get maximum learning results (Hendriana et al., 2019). Elhaqe et al., (2021) stated that self-confidence influences achievement, reflecting the importance of self-belief in achieving optimal results. Various studies show a relationship between emotional intelligence and learning outcomes (Hidayat et al., 2023); (Nafisah & Ansori, 2022); (Handayani & Septhiani, 2021); (Rahmatika & Susilawati, 2024). However, research conducted by (Mustakim et al., 2020) and (N. A. Nasution et al., 2023) found that there was no significant relationship between emotional intelligence variables and student learning outcomes. Student self-confidence is an internal factor that influences Fraction Mathematics learning outcomes. Learning independence is an important factor that influences academic achievement. Learning independence has a significant effect on class student learning outcomes (Arif & Nursakiah, 2021). Research conducted by Rohmah & Maknunah (2019), Arif et al. (2021), Muawwanah et al., (2020), Wiriani, 2021 and Maisyarah et al. (2021) examined the relationship between learning independence and learning outcomes. However, research by F. N. Sari et al., 2023 examined that independent learning does not affect achievement. Learning independence is one of the factors taken into account in the context of this research. This research examines the role of the Driving Teacher as a moderating variable to explain the impact of the variables emotional intelligence, learning independence, and self-confidence on students' Fraction Mathematics learning outcomes, especially on fraction material in fourth grade elementary school mathematics subjects within the Independent Curriculum framework. The following are research gaps in the research, including: Inconsistencies in findings in research that link the influence of the variables emotional intelligence, self-confidence, and learning independence on learning outcomes, Lack of focus on the role of the driving teacher as a moderating variable. Research that focuses on the role of the driving teacher as a variable Moderation that allows strengthening or weakening the three influences (emotional intelligence, self-confidence and learning independence) on mathematics learning outcomes is very limited. In fact, the role of the teacher who is an active driver and facilitates student development has the potential to improve teaching effectiveness and learning outcomes, but it has not been widely researched in this context. There are limitations to research combining the three variables in mathematics learning. Most previous research tends to focus on one or two factors only, without combining emotional intelligence, self-confidence, and learning independence simultaneously in the context of mathematics. This creates a need for research that examines the relationship between these three variables simultaneously, to get a more complete picture of their influence on elementary school students' learning outcomes in mathematics learning. The aim of this research focuses on the influence of emotional intelligence, self-confidence in learning independence and the role of the Driving Teacher on Fraction Mathematics learning outcomes in fraction material in class IV elementary school, among other things, to analyze the influence of emotional intelligence on Fraction Mathematics learning outcomes in fraction material in fourth grade elementary school. This objective aims to determine the extent to which students' emotional intelligence influences learning outcomes in mathematics subjects, especially in understanding the concept of fractions and to explore the role of the motivating teacher as a moderating variable in the influence of emotional intelligence, self-confidence, and learning independence on mathematics learning outcomes. fraction material in fourth grade elementary school.

Emotional intelligence is the ability to manage emotions that can be improved through practice, even if it is initially low (Handriyanto et al., 2023). Indicators include recognizing one's own emotions, motivating oneself and recognizing other people's emotions (Goleman).

Self-confidence is an attitude of being confident in one's abilities and viewing oneself as a complete person by referring to self-concept (Ferli Yanti et al., 2020). Indicators include confidence in one's abilities, self-respect and courage to face challenges (Masruroh et al. (2019)

Learning independence is the ability to be responsible independently to encourage the achievement of student learning outcomes (F. N. Sari et al., 2023). Indicators include being responsible, active and creative in learning and being able to solve learning problems (Rahayu & Aini, 2021)

Learning outcomes (Sudjana) are the abilities that students have after receiving their learning experience. Indicators include: Cognitive, Affective, Psychomotor (Bloom).

Driving teachers are active educational pioneers, share knowledge, and focus on the best learning for students (Kemendikbud, 2019). Indicators include: Pedagogical, Personality, Professional and Social (Manao et al, 2022)

METHOD

This research adopts a quantitative approach with an ex post facto type of research to analyze the relationship between predetermined variables, namely the influence of emotional intelligence, self-confidence and learning independence on students' Fraction Mathematics learning outcomes. The population in this study included all grade IV students at State Elementary Schools in Pangkah District, Tegal Regency. includes several state elementary schools under the supervision of the sub-district. This research uses several data collection techniques to obtain valid and reliable information, including using questionnaires, learning outcomes tests, observation, documentation. Data analysis techniques use descriptive statistical analysis techniques, classical assumption tests, moderated regression analysis, hypothesis testing, termination coefficient tests.

RESULTS AND DISCUSSION

Descriptive statistical analysis is used to describe the characteristics of the data collected in this research, which includes the variables emotional intelligence, self-confidence, learning independence, fractional mathematics learning outcomes, and the role of the driving teacher as a moderating variable. Descriptive statistics include measures such as average (mean), standard deviation, and minimum and maximum values for each variable studied.

Table 1. Descriptive Statistical Test Results for Fraction Mathematics Learning Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Hasil Belajar	100	60	75	69,36	3,057
Valid N (listwise)	100				

Source: Primary data processed by SPSS 25, 2024

Based on Table 1, it shows the results of descriptive statistical tests for fractional mathematics learning outcomes. Based on the table, data obtained on the number of respondents (N) is 100 students. The minimum score recorded is 60, while the maximum score is 75. The average (mean) student learning outcome is 69.36, with a standard deviation (Std. Deviation) of 3.057. All 100 respondents are considered valid in this calculation.

Table 2. Descriptive Statistical Test Results for Emotional Intelligence

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Hasil Belajar	100	61	75	70,28	3,649
Valid N (listwise)	100				

Source: Primary data processed by SPSS 25, 2024

Table 2 shows the results of descriptive statistical tests for emotional intelligence involving 100 students as samples. The minimum score obtained by students was 61, while the maximum score was recorded at 75. The average student learning outcome was 70.28 with a standard deviation of 3.649, which shows that student learning outcomes are relatively not spread too far from the average.

Table 3. Descriptive Statistical Test Results for Self-Confidence

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Kepercayaan Diri	100	62	75	70,20	3,226
Valid N (listwise)	100				

Source: Secondary data that has been processed by SPSS 25, 2024.

Table 3 shows the results of descriptive statistical tests for the Self-Confidence variable based on 100 respondents. This table shows that the Self-Confidence score ranges from 62 to 75, with an average (mean) of 70.20 and a standard deviation of 3.226, which illustrates the fairly small variation in results between the samples tested.

Table 4. Descriptive Statistical Test Results for Learning Independence

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Kemandirian Belajar	100	62	75	70,37	3,187
Valid N (listwise)	100				

Source: Secondary data processed by SPSS 25, 2024

Table 4 shows the results of descriptive statistical tests for the Learning Independence variable. Based on this table, the number of samples used is 100 with a minimum score of 62 and a maximum score of 75. The average (mean) of student learning independence is 70.37, which shows that in general, students have a fairly good level of learning independence. In addition, the standard deviation of 3.187 shows that the variation in learning independence scores between students is not too large, which means that most students have relatively similar levels of learning independence.

Table 5. Results of Descriptive Statistical Tests on the Role of Driving Teachers

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Peran Guru Penggerak	100	80	100	93,16	4,726
Valid N (listwise)	100				

Source: Primary data processed by SPSS 25, 2024.

Table 5 shows the results of descriptive statistical tests for the driving teacher role variable. From this table, it is known that the number of respondents was 100 people with a minimum score of 80 and a maximum of 100. The average (mean) score for the role of driving teacher was 93.16 with a standard deviation of 4.726. This shows that overall, the role of driving teacher among respondents tends to be at a high level, with little variation between values. With an average of close to 93, the role of the driving teacher can be said to be highly valued and well received by the respondents.

Table 6. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	0,0000000
	Std. Deviation	2,53441281
Most Extreme Differences	Absolute	0,064
	Positive	0,058
	Negative	-0,064
Test Statistic		0,064
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Primary data processed by SPSS 25, 2024.

Based on table 6. above, the One Sample Kolmogorov-Smirnov Test Results for unstandardized residuals show a test statistical value of 0.064 with an Asymp value. Sig. (2-tailed) of 0.200. Since this p-value is greater than 0.05, we can conclude that there is not enough evidence to reject the null hypothesis. This means that the residual distribution is not significantly different from the normal distribution, and the data can be considered normally distributed. It should be noted that these results use Lilliefors Significance Correction, which provides a lower bound for true significance values.

Table 7 Linearity Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.559[a]	0,313	0,284	2,587

a. Predictors: (Constant), Peran Guru Penggerak, Kepercayaan Diri, Kecerdasan Emosional, Kemandirian Belajar

b. Dependent Variable: Hasil Belajar

Source: Primary data processed by SPSS 25, 2024.

Table 7 shows the results of the linearity test using the Summary Model for regression analysis. The R value of 0.559 indicates that there is a moderate positive relationship between the independent variable (Role of the Driving Teacher, Self-Confidence, Emotional Intelligence, Learning Independence) and the dependent variable (Learning Outcomes). An R Square value of 0.313 means that around 31.3% of the variation in learning outcomes can be explained by the independent variables in the model, while the remainder, around 68.7%, is influenced by other factors not explained in this model. The slightly lower Adjusted R Square value, namely 0.284, shows adjustments based on the number of variables and samples used. In addition, the Standard Error of the Estimate of 2.587 shows that this model's predictions have a relatively small standard error, but there is still room for improvement. Overall, although the linear relationship between these variables and learning outcomes is significant, there are other factors that also influence learning outcomes that are not identified in this model.

Table 8. Multicollinearity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	27,060	7,330		3,692	0,000		
	Kecerdasan Emosional	0,266	0,081	0,318	3,302	0,001	0,781	1,280
	Kepercayaan Diri	0,408	0,125	0,430	3,268	0,002	0,417	2,397
	Kemandirian Belajar	-0,273	0,130	-0,285	-2,096	0,039	0,391	2,555
	Peran Guru Penggerak	0,152	0,059	0,236	2,572	0,012	0,862	1,160

a. Dependent Variable: Hasil Belajar

Source: Primary data processed by SPSS 25, 2024.

Based on the results of the multicollinearity test listed in Table 4.18, it can be seen that the Tolerance value for each independent variable is greater than 0.10, and the VIF (Variance Inflation Factor) value for each independent variable is below 10. This shows that there is no multicollinearity problem. significant among the independent variables in this regression model. The explanation for each Emotional Intelligence variable has a tolerance value of 0.781 and a VIF of 1.280, which indicates there is no significant multicollinearity. Self-confidence has a tolerance value of 0.417 and a VIF of 2.397, which also shows that there is no multicollinearity problem. Learning Independence has a tolerance value of 0.391 and a VIF of 2.555, which is also within the accepted threshold. The role of the motivating teacher has a tolerance value of 0.862 and a VIF of 1.160, which indicates a relationship that is not problematic. Overall, the results of this multicollinearity test show that the independent variables used in this study are not significantly correlated with each other, so they can be used in subsequent regression analyzes without worrying about multicollinearity problems.

Table 9. Heteroscedasticity Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	27,060	7,330		3,692	0,000
	Kecerdasan Emosional	0,266	0,081	0,318	3,302	0,001
	Kepercayaan Diri	0,408	0,125	0,430	3,268	0,002
	Kemandirian Belajar	-0,273	0,130	-0,285	-2,096	0,039
	Peran Guru Penggerak	0,152	0,059	0,236	2,572	0,012

a. Dependent Variable: Hasil Belajar

The results of the heteroscedasticity test using linear regression analysis in Table 4.19 show that all the independent variables: Emotional Intelligence (sig = 0.001), Self-Confidence (sig = 0.002), Learning Independence (sig = 0.039), and the Role of the Driving Teacher (sig = 0.012)—have significant coefficient ($p < 0.05$). This shows that each variable contributes significantly to learning outcomes in Fraction Mathematics, with constant error variability, so that no symptoms of heteroscedasticity are found in the model.

Table 10. Moderation Regression Analysis Test Results

Coefficients[a]

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
		B		Beta		
1	(Constant)	49,355	3,620		13,633	0,000
	Kecerdasan Emosional	0,266	0,081	0,318	3,302	0,001
	Kepercayaan Diri	0,408	0,125	0,430	3,268	0,002
	Kemandirian Belajar	0,273	0,130	0,285	2,096	0,039
	Peran Guru Penggerak	0,152	0,059	0,236	2,572	0,012
	X1_Z	0,002	0,001	0,413	2,880	0,005
	X2_Z	0,004	0,001	0,648	3,028	0,003
	X3_Z	0,003	0,001	0,557	2,496	0,014

The results of the regression analysis show that all independent variables have a significant positive influence on Fraction Mathematics learning outcomes, with Emotional Intelligence (B = 0.266, sig = 0.001), Self-Confidence (B = 0.408, sig = 0.002), Learning Independence (B = 0.273, sig = 0.039), and the Role of Driving Teachers (B = 0.152, sig = 0.012). Apart from that, the interaction of the moderating variables is also significant, namely X1_Z (B = 0.002, sig = 0.005), X2_Z (B = 0.004, sig = 0.003), and This shows that each independent variable, including the moderating influence of the Driving Teacher Role, significantly contributes to improving learning outcomes.

Table 11. Determination Coefficient Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.559[a]	0,313	0,284	2,587	1,948

a. Predictors: (Constant), Peran Guru Penggerak, Kepercayaan Diri, Kecerdasan Emosional, Kemandirian Belajar

b. Dependent Variable: Hasil Belajar

Source: Primary data processed by SPSS 25, 2024

Results *model summary* shows that the coefficient of determination (R Square) value of 0.313 indicates that 31.3% of the variation in learning outcomes can be explained by the variables Emotional Intelligence, Self-Confidence, Learning Independence, and the Role of the Driving Teacher, while the remainder is influenced by other factors outside the model. The Adjusted R Square value of 0.284 shows that the model remains quite strong even though it is adjusted for the number of independent variables. *Standard Error of the Estimate* of 2.587 indicates a prediction error rate, and a Durbin-Watson value of 1.948 indicates there is no autocorrelation problem in the data.

1. **The influence of emotional intelligence on learning outcomes in Mathematics Fractions Mathematics Fractions**

The results of this research are in line with research conducted by (Hidayat et al., 2023), (Nafisah & Ansori, 2022) (Handayani & Septhiani, 2021) and Rahmatica & Susilawati, 2024) which shows that there is a significant relationship between emotional intelligence and learning outcomes .
However, these results conflict with research by (Mustakim et al., 2020) and (N. A. Nasution et al., 2023) which did not find a significant relationship between emotional intelligence and learning outcomes, indicating that the influence of emotional intelligence on academic achievement may vary depending on on context and other influencing factors.
In the results of this research, students who have good emotional intelligence are better able to face academic challenges, adapt to the learning environment, and interact positively with peers and teachers. This is in accordance with Goleman's theory which emphasizes the importance of emotional intelligence in supporting students' academic success and social life.

2. **The Influence of Self-Confidence on learning outcomes in Mathematics Fractions Mathematics Fractions**

The results of this research are in line with research by (Nasruddin et al., 2023), (Ferli Yanti et al., 2020) and (Elhaqe et al., 2021) which states that self-confidence influences student learning outcomes. However, these results contradict research by (Dewi et al., 2020) which did not find a significant effect of self-confidence on learning outcomes in Fraction Mathematics.
In this research, students who feel confident in their learning abilities will be more motivated to complete academic assignments and participate in learning more actively, thereby improving student learning outcomes. Bandura's theory shows that self-confidence is a determining factor in optimizing student achievement.

3. **The influence of learning independence on learning outcomes in Fraction Mathematics. Fraction Mathematics**

Previous research (Rohmah & Maknunah, 2019; Arif & Nursakiah, 2021; Muawwanah et al., 2020; Wiriani, 2021; Maisyarah et al., 2021) shows that there is a significant influence of learning independence on student learning outcomes, but does not consider moderating factors. Research by Sari et al. (2023) revealed that the influence of learning independence on learning outcomes becomes more significant when supported by the role of driving teachers who create a conducive learning environment to support student independence. This research also confirms that independent learning has a significant positive influence on Fraction Mathematics learning outcomes, but the effect is more optimal with the support of a driving teacher. This finding is in line with the theory of Self-Regulated Learning (Zimmerman), which states that students who are able to regulate and monitor their learning process will be more successful in overcoming learning difficulties and achieving better results. Thus, increasing learning independence, supported by the role of driving teachers, is an important factor in supporting students' academic success.

4. **The Influence of the Role of the Driving Teacher on Fraction Mathematics learning outcomes**

Motivating teachers play an important role in creating a positive learning climate, increasing student motivation, and supporting the development of their character and social skills, including in learning Fraction Mathematics which requires deep understanding of concepts and perseverance. Previous research (Fatimatuzzahroh & Zumrotun, 2023; Manao et al., 2022; Ningsih & Fatmala, 2024; Nurfadillah et al., 2024; Pidrawan et al., 2022) confirms that mobilizing teachers contribute significantly in improving the quality of learning, student learning outcomes , as well as students' ability to learn independently and confidently through emotional support, use of technology, and the creation of a pleasant learning atmosphere. As a moderating variable, driving teachers strengthen the relationship between emotional intelligence, self-confidence, learning independence, and student learning outcomes, in line with Vygotsky's theory which emphasizes the importance of interaction with more competent individuals to accelerate the learning process. With their multifunctional roles as agents of change, facilitators, motivators and mentors, driving teachers are able to inspire students to maximize their potential and achieve better learning outcomes.

5. **The Influence of Emotional Intelligence on Fraction Mathematics learning outcomes with the Role of the Motivating Teacher as a Moderating Variable**

This finding is in accordance with research conducted by Hidayat et al., 2023, Nafisah & Ansori, 2022 Handayani & Septhian, 2021) and Rahmatica & Susilawati, 2024 also stated that emotional intelligence has a positive and significant effect on learning outcomes. Apart from that, these findings also support research by Fatimatuzzahroh & Zumrotun, 2023 and Pidrawan et al., 2022 which shows that Activation Teachers have an important role in improving student learning outcomes. In the results of this research, students who have good emotional intelligence are better able to face academic challenges, adapt to the learning environment, and interact positively with peers and teachers. This is in accordance with Goleman's theory which emphasizes the importance of emotional intelligence in

supporting students' academic success and social life.

6. The Influence of Self-Confidence on Fraction Mathematics learning outcomes with the Role of the Motivating Teacher as a Moderating Variable

These results indicate that self-confidence has a direct positive influence on learning outcomes in Mathematics Fractions Mathematics Fractions, but this influence is stronger when supported by the Role of the Driving Teacher. Mobilization Teachers play an important role in creating a learning environment that supports the development of student self-confidence. With support and motivation from the Driving Teacher, students are better able to face challenges in learning Fraction Mathematics and can be more confident in understanding and solving the problems given.

This research is in line with findings by (Nasruddin et al., 2023), (Ferli Yanti et al., 2020) and (Elhaqe et al., 2021), which show that self-confidence has a significant influence on Fraction Mathematics learning outcomes. This finding does not support the results of research by (Dewi et al., 2020) which did not find a significant effect of self-confidence on Fraction Mathematics learning outcomes.

The role of the Motivating Teacher functions as an external factor that strengthens the positive influence of Self-Confidence on Fraction Mathematics learning outcomes. Fraction Mathematics makes a significant contribution to students' academic achievement.

7. The Influence of Learning Independence on Fraction Mathematics learning outcomes with the Role of the Motivating Teacher as a Moderating Variable

This research shows that a higher level of learning independence in students contributes positively to Fraction Mathematics learning outcomes, with an increasingly stronger influence if supported by the role of the Driving Teacher. Motivating Teachers play an important role in creating a conducive learning climate, providing emotional support, guiding students in overcoming difficulties, and encouraging student initiative in learning independently. This finding is in line with previous research (Rohmah & Maknunah, 2019; Arif & Nursakiah, 2021; Muawwanah et al., 2020; Wiriani, 2021; Maisyarah et al., 2021) which shows the influence of independent learning on students' mathematics learning outcomes. In accordance with Zimmerman's Self-Regulated Learning (SLR) theory, students who are able to regulate and monitor their learning process tend to be more successful in facing learning challenges and achieve better results, especially with the support of a motivating teacher who facilitates this process optimally.

CONCLUSION

Based on the results of the research and discussion that have been described, the following conclusions can be drawn:

Emotional Intelligence has a positive effect on Fraction Mathematics learning outcomes. The research results show that emotional intelligence has a significant influence on student achievement of learning outcomes in Fraction Mathematics material with the Role of the Driving Teacher as a moderating variable. Students who have high emotional intelligence tend to be able to manage their emotions better, so they can be more focused and effective in the learning process.

Self-Confidence has a positive effect on Fraction Mathematics learning outcomes with the Role of the Motivating Teacher as a moderating variable. The results of the research show that the role of the motivating teacher strengthens the influence of students' self-confidence on learning outcomes in Mathematics Fractions Mathematics Fractions. Motivating Teachers who provide emotional support and motivation can increase students' self-confidence, which in turn has an impact on improving learning outcomes.

Learning Independence has a positive effect on learning outcomes in Mathematics Fractions Mathematics Fractions with the Role of the Driving Teacher as a moderating variable. The influence of independent learning on students' Fraction Mathematics learning outcomes becomes stronger when students are supported by the Role of the Driving Teacher. Motivating Teachers as active learning facilitators can increase student independence in learning, which has an impact on better Fraction Mathematics learning outcomes.

The role of the Driving Teacher as a moderating variable is proven to have an important role in strengthening the influence of Emotional Intelligence, Self-Confidence, and Learning Independence on Fraction Mathematics learning outcomes. Motivating Teachers not only act as teachers, but also as motivators, facilitators and mentors who support students in overcoming learning challenges and improving the quality of their learning.

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