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The Moderating Role of Learning Environment in Self-Efficacy, Learning Motivation, and Academic Achievement Relationship

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ABSTRACT. This study aims to examine the effect of self-efficacy and learning motivation on academic achievement with the learning environment as a moderating variable. The research approach used is quantitative, with a questionnaire as the main instrument. A total of 114 Economics Education students at Syarif Kasim Riau State Islamic University were selected using a stratified random sampling technique. The collected data were analyzed using descriptive quantitative techniques, followed by classical assumption tests and Moderated Regression Analysis (MRA) to assess the effect before and after the inclusion of moderating variables. The results showed that self-efficacy has a significant effect on student academic achievement. Similarly, learning motivation has a significant influence on academic achievement. In addition, the learning environment acts as a moderating variable that strengthens the relationship between self-efficacy, learning motivation, and academic achievement. It shows that a conducive learning environment can increase self-efficacy and have a positive impact on academic achievement. In addition, a supportive and productive learning environment can increase learning motivation, encouraging enthusiasm to achieve better academic results.

Keywords: *Academic achievement, learning environment, learning motivation, self-efficacy.*

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INTRODUCTION

Education is a deliberate, structured, and planned effort to change or develop the expected values (Ikhwan, 2014). In higher education, the main goal is to produce excellent human resources with in-depth knowledge and skills relevant to future demands (Kardini et al., 2023; Rahayu, 2024). Academic competence includes mastery in the fields of science, technology, and art, while professional competence refers to the ability to apply, develop, and innovate in these fields (Dian, 2016).

Students' academic success is measured through their academic achievements, which are often reflected in the Grade Point Average (IP) as a record of academic performance per semester, as well as the Cumulative Grade Point Average (GPA), which reflects overall academic achievement during the study period. These achievements not only reflect academic competence but also demonstrate students' discipline, time management skills, and engagement in the learning process. Collectively, these elements constitute a student's academic history and substantially influence their future job opportunities (Nurrahmaniah, 2019).

Grade Point Average (GPA) plays an important role in higher education and is the primary indicator of student academic achievement. Its significance includes various aspects, such as providing an overview of students' academic achievements, increasing employment opportunities, fulfilling scholarship requirements, meeting criteria for continuing education to higher levels, fostering a sense of pride and increasing self-confidence, and demonstrating students' ability to accept responsibility-including completing tasks and maintaining high-quality work, which are highly valued skills in the professional world (Alyahyan & Düştegör, 2020).

The higher the GPA, the better the academic achievement of students, so GPA becomes a reliable measure in assessing their academic success (Jayanthi et al., 2014). The GPA distribution of students in the Economics Education Study Program, Faculty of Tarbiyah and Keguruan, Sultan Syarif Kasim Riau State Islamic University for the 2022/2023 academic year is presented in Table 1.

Table 1. Cumulative Grade Point Average of Students for the 2022/2023 Academic Year

Year	Average Grade Point Average	
	Odd 2022/2023	Even 2022/2023
A	3,48	3,54
B	3,42	3,46
C	3,41	3,43
D	3,51	3,50
E	3,51	3,52
F	3,64	3,55

Source: Economics Education Study Program, Sultan Syarif Kasim Riau State Islamic University

Based on Table 1, the average Grade Point Average (GPA) of Economics Education Study Program students fluctuated during the 2022/2023 academic year. An increase in GPA occurred in even semesters in classes A, B, C, and E, while a decrease in GPA was identified in classes D and F in the same semester. Although the average GPA at the class level shows a high value, this does not necessarily reflect that all students in the class have an above-average GPA. There are still students with GPAs below 2.8, which is caused by various factors that affect individual academic achievement. Some of the main factors that contribute to GPA differences include learning environment, learning motivation, and self-efficacy (Ozcan, 2021; Wei et al., 2022; Siregar et al., 2024).

Fluctuations in student academic grades are influenced by various factors, both internal and external, which contribute to whether or not learning outcomes are optimal (Arsad & Ali, 2021). One internal factor that plays a significant role in academic achievement is learning motivation (Bakar et al., 2010; Amrai et al., 2011; Ning & Downing, 2012). Learning motivation is a key factor in increasing the attractiveness of the learning process, which in turn has an impact on student academic achievement (Alderman, 2013; Hayikaleng et al., 2016; Lo et al., 2022; Qureshi et al., 2023). Learning motivation includes the drive, interest, and enthusiasm of students to acquire knowledge and achieve optimal academic results (Blašková, 2014; Alzubi & Nazim, 2024). A study conducted by Manurung (2017) showed that learning motivation has a positive and significant influence on student academic achievement at STIE Kesatuan Bogor. This finding indicates that increasing learning motivation can contribute directly to students' academic achievement. In addition, research by Shi et al. (2021) found that in the context of science learning, learning motivation was measured through perceived self-efficacy towards science classes, active learning strategies, grades given to science learning, and performance and achievement goals had a significant influence on student's academic achievement. Learning motivation, whether sourced from internal or external factors, is the main element that determines the level of effort and engagement of students in achieving their academic goals (Tohidi & Jabbari, 2012; Urhahne & Wijnia, 2023).

In addition to learning motivation, another internal factor that contributes to academic achievement is self-efficacy or self-belief (Caprara et al., 2011; Phan, 2012; Zuffianò et al., 2013;

Musa, 2020). Self-efficacy reflects an individual's belief in their ability to carry out tasks and achieve expected results (Qomariyah & Lestari, 2016). This concept refers to Bandura's Theory (2012), which emphasizes that individuals with high self-efficacy tend to be more confident in completing tasks and facing academic challenges. Research conducted by Hwang et al. (2016) confirmed that high self-efficacy is positively correlated with increased academic achievement. Individuals who have strong beliefs in their abilities tend to be more persistent in facing obstacles, so they are better able to achieve success in various academic situations.

In addition to internal factors, external factors such as the learning environment also play an important role in determining students' academic performance. The learning environment includes various aspects that influence the learning process, including family, school, and community environments (Parr & Townsend, 2002; Barth et al., 2004; Anders et al., 2012; Hasbullah, 2018; Hasbullah et al., 2019). A conducive learning environment can have a positive impact on student engagement in the learning process, thus contributing to improved academic outcomes (Venugopal-Wairagade, 2016; Yahya & Nur, 2023). Octavia (2020) emphasized that a supportive learning environment allows students to be more focused and motivated in undergoing academic activities, which ultimately has an impact on better academic achievement.

A number of studies have examined the influence of self-efficacy, learning motivation, and learning environment on academic achievement, producing mixed findings. A study conducted by Kweon (2017) showed that the classroom learning environment had the highest correlation with students' academic achievement. Some of the main factors contributing to academic achievement include the subscales of "engagement," "emphasis on understanding," and "personal relevance" (Sevim et al., 2023). In addition, students with high achievement in Mathematics tend to have a more positive perception of the classroom learning environment (Baek & Choi, 2002). The results of multiple regression analysis also confirmed that classroom environment is a significant predictor of students' academic achievement. Furthermore, research conducted by Harahap (2016) revealed that learning motivation and learning environment contribute to students' grade point average, which indicates that a conducive learning environment and high learning motivation can have a positive impact on student's academic achievement.

The optimal combination of these three factors can form a strong foundation for superior academic achievement. Conversely, deficiencies in one or more of these factors may prevent students from achieving their full academic potential. The reality in higher education shows that there is still a disparity in students' academic achievement, which should be maintained at a stable level every year. Based on this problem, an update is needed in the analysis of factors affecting academic achievement by emphasizing the role of the learning environment as a moderating variable. A number of previous studies have identified factors that contribute to learning outcomes. However, this study seeks to update the model by including moderating variables to explore whether the learning environment can strengthen or weaken the relationship between self-efficacy and learning motivation with academic achievement. Therefore, this study aims to examine (1) the effect of self-efficacy on academic achievement, (2) the effect of learning motivation on academic achievement, (3) the role of the learning environment as a moderator in the relationship between self-efficacy and academic achievement, and (4) the role of the learning environment as a moderator in the relationship between learning motivation and academic achievement.

METHOD

Research Approach and Design

This research was conducted at Sultan Syarif Kasim State Islamic University (UIN Suska) Riau in the Economics Education study program class of 2023/2024. The approach used in this study is a quantitative method. The aim is to examine the effect of self-efficacy and learning motivation on academic achievement, with the learning environment as a moderating variable.

Population and Sample

The population in this study consisted of 160 students. Sampling was carried out using the Slovin formula so that a total sample of 114 respondents was obtained. The sampling technique used is probability sampling with a stratified random sampling method, which aims to ensure that each group in the population has the same opportunity to be selected as a research sample.

Instruments and Measurements

Data collection is done through the distribution of scales or research instruments designed to measure self-efficacy, learning motivation, and student academic achievement. The learning environment was used as a moderating variable in this study.

Data Analysis

Data analysis was carried out through several stages, namely: First, Validity and Reliability Test. The validity test was conducted using the Pearson correlation coefficient (Product Moment Correlation) to measure the extent to which the research instrument can accurately measure the intended variables (Table 2). Meanwhile, the reliability test was conducted to ensure the consistency of the measurement results of the instrument used (Table 3). Second, the Classical Assumption Test. Before conducting regression analysis, this study first conducted a classical assumption test, which includes a normality test, heteroscedasticity test, multicollinearity test, and autocorrelation test. This test aims to ensure that the data meets the assumptions required in regression analysis. Third, Moderated Regression Analysis (MRA). MRA is employed to assess the impact of the independent variable on the dependent variable, both prior to and after the moderating variable. This analysis aims to test the extent to which the learning environment can strengthen or weaken the relationship between self-efficacy and learning motivation on student academic achievement.

Table 2. Instrument Validity Test Results

Variables	Item	r Count	r Table	Description
Self-Efficacy	$X_1.1$	0,689	0,336	Valid
	$X_1.2$	0,716	0,336	Valid
	$X_1.3$	0,757	0,336	Valid
	$X_1.4$	0,605	0,336	Valid
	$X_1.5$	0,668	0,336	Valid
	$X_1.6$	0,605	0,336	Valid
	$X_1.7$	0,643	0,336	Valid
	$X_1.8$	0,519	0,336	Valid
Learning Motivation	$X_2.1$	0,548	0,336	Valid
	$X_2.2$	0,556	0,336	Valid
	$X_2.3$	0,566	0,336	Valid
	$X_2.4$	0,521	0,336	Valid
	$X_2.5$	0,510	0,336	Valid
	$X_2.6$	0,561	0,336	Valid
	$X_2.7$	0,563	0,336	Valid
	$X_2.8$	0,519	0,336	Valid
	$X_2.9$	0,584	0,336	Valid
	$X_2.10$	0,451	0,336	Valid
Learning Environment	M_1	0,668	0,336	Valid
	M_2	0,763	0,336	Valid
	M_3	0,676	0,336	Valid
	M_4	0,692	0,336	Valid
	M_5	0,851	0,336	Valid
	M_6	0,739	0,336	Valid
	M_7	0,737	0,336	Valid
	M_8	0,684	0,336	Valid
	M_9	0,723	0,336	Valid
	M_{10}	0,654	0,336	Valid

Based on the results of the instrument validity test presented in Table 2, all items on the Self-Efficacy, Learning Motivation, and Learning Environment variables show a calculated r value more significant than the r table (0.336) at the predetermined significance level. This indicates that all items used in this study are valid and that each variable in question can be measured accurately. In the Self-Efficacy variable, the calculated r value ranges from 0.519 to 0.757, while in the Learning Motivation variable, the calculated r value ranges from 0.451 to 0.763. Meanwhile, the Learning Environment variable has the highest r value, with a range of 0.654 to 0.851, which indicates that the instrument on this variable has a strong correlation with the construct being measured. Thus, this research instrument meets the validity requirements so that it can be used for further analysis.

Table 3. Instrument Reliability Test Results

No	Variabel	Cronbach's Alpha	Keterangan
1	Self-Efficacy (X_1)	0,667	Reliabel
2	Learning Motivation (X_2)	0,689	Reliabel
3	Learning Environment (M)	0,701	Reliabel

Based on the reliability test results displayed in Table 3 above, all research variables, namely Self-Efficacy (X_1), Learning Motivation (X_2), and Learning Environment (M), have Cronbach's Alpha values above 0.6, which indicates that the instruments used in this study are classified as reliable. Specifically, the Self-Efficacy variable has a Cronbach's Alpha value of 0.667, the Learning Motivation variable is 0.689, and the Learning Environment variable shows the highest value, which is 0.701. These values indicate that all items in each variable have good internal consistency, so they can be used reliably in measuring the construct under study. Thus, this research instrument meets the reliability criteria and is suitable for further analysis.

RESULT AND DISCUSSION

Result

Descriptive Analysis Results

This study involved 114 students from the Economics Education Study Program at UIN Sultan Syarif Kasim Riau as respondents. Descriptive analysis was conducted to describe the distribution of data related to self-efficacy, learning motivation, learning environment, and academic achievement. To obtain a clearer picture of each variable, researchers processed the score of each respondent's answer. The self-efficacy variable is measured through 8 statements, which are then grouped into several trend categories. The distribution of self-efficacy variable tendencies in more detail is presented in Table 4.

Table 4. Self-efficacy Variable Categorization

No	Category	Interval	Frequency	Percentage (%)
1	Low	< 18	11	9,7
2	Moderate	18 s/d 30	45	39,5
3	High	> 30	58	50,8
		Total	114	100

Based on Table 4, most respondents, 58 people (50.9%), showed a high level of self-efficacy, while only 11 people (9.7%) had a low level of self-efficacy. It indicates that the majority of students have a high level of self-efficacy, which is believed to have a positive effect on their learning outcomes. In other words, students with a high level of self-efficacy are likely to achieve better learning achievements.

Furthermore, the learning motivation variable is measured using 10 statements, which are grouped into specific tendency categories, which can be seen in Table 5.

Table 5. Categorization of Learning Motivation Variables

No	Category	Interval	Frequency	Percentage (%)
1	Low	< 23	34	29,9
2	Moderate	23 s/d 37	54	47,3
3	High	> 37	26	22,8
		Total	114	100

Based on Table 5, the majority of respondents, 54 people (47.3%), showed a moderate level of learning motivation. However, 34 people (29.9%) have a low level of learning motivation. This finding shows that the learning motivation of Economics Education students at UIN Sultan Syarif Kasim Riau still needs to be improved to support the achievement of more optimal academic performance.

Furthermore, the learning environment variable is measured through 10 statements, which are categorized based on the tendency of the student learning environment. The results of this tendency distribution can be seen in Table 6.

Tabel 6. Categorization of Learning Environment Variables

No	Category	Interval	Frequency	Percentage (%)
1	Not Good	< 23	30	26,3
2	Good enough	23 s/d 37	28	24,6
3	Good	> 37	56	49,1
		Total	114	100

Based on Table 6, it is known that most respondents, namely 56 people (49.1%), have a good environmental situation. However, it turns out that many respondents state that their learning environment is also not good, namely as many as 30 people (26.3%). Thus, the student learning environment still needs improvement because this factor is one of the determinants of academic achievement. Having a healthy and good learning environment (from peers, environment, and family) can have a good impact on increasing students' desire to learn. The encouragement of people around and the community can be important for improving one's academic abilities.

Based on the obtained documentation data related to student academic achievement, it is classified based on the student's GPA (Grade Point Average), which can be seen in Table 7 below.

Table 7. Categorization of Academic Achievement Variables

No	Category	Interval	Frequency	Percentage (%)
1	Low	< 2,8	0	-
2	Moderate	2,8 s/d 3,50	52	45,6
3	High	> 3,50	62	54,4
		Total	114	100

Based on Table 7, it is known that most students, 62 people (54.4%), have high academic achievement, but the number of students who have moderate achievement is also 52 people (45.6%). Thus, in general, the academic achievement of UIN Suska economic education students cannot be said to be high because the number of students who get moderate grades is almost the same. This means that the academic achievement level of these students still needs to be improved.

Classical Assumption Test Results

In carrying out this research, classical assumptions and regression coefficients are needed to ensure no bias and show results that are close to valid or feasible. Therefore, before testing the data in hypothesis testing, the assumption test on regression analysis should be carried out first.

Normality Test

This test uses a graphical approach by paying special attention to the distribution of the model on the P-plot plot of standard standardized residual regression. If the points on the graph

approach a straight line and the direction is parallel to the diagonal, it can be concluded that the model is normally distributed.

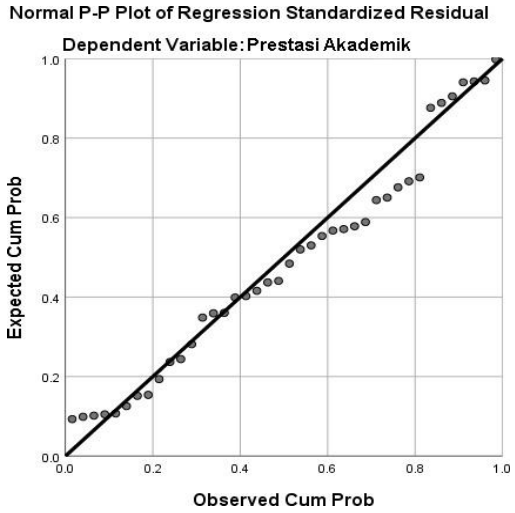

Figure 1. Normality Test Curve

In the picture above, the points are located not too far from the line, and the direction is parallel to the line, so it can be concluded that the model used has a normal distribution. The Kolmogorov-Smirnov normality test is conducted to substantiate the findings of the graph normality test. If the significance level is greater than the 5% significance level, the model is normally distributed. The results of the normality test can be seen in Table 8.

Table 8. Normality Test Results

		Unstandardized Residual
N		114
Normal Parameters[a,b]	Mean	0,0000000
	Std. Deviation	3,16606942
Most Extreme Differences	Absolute	0,117
	Positive	0,117
	Negative	-0,084
Test Statistic		0,065
Asymp.Sig. (2-tailed)		0,200[c,d]

Based on Table 8, it is known that the normality test of the One-Sample Kolmogorov-Smirnov method obtained significant results from the normality test of 0.200, where these results are more significant than 0.05, so it can be concluded that the normality test in this study is normally distributed.

Multicollinearity Test

This test is conducted to determine the symptoms that may occur multicollinearity in the research conducted by researchers today, and the test output can be shown based on the VIF and Tolerance values. The test data processing results can be seen in Table 9.

Table 9. Multicollinearity Test Results

Variables	CollinearityStatistics		Description
	Tolerance	VIF	
Self-Efficacy (X_1)	0.910	1.103	Does not contain symptoms
Learning Motivation (X_2)	0.960	1.044	Does not contain symptoms
Learning Environment (M)	0.945	1.028	Does not contain symptoms

Table 4.9 explains that the VIF value in this test is <10 and the Tolerance Value> 0.01, which means that all independent variables in this research have no correlation (relationship) between each other or are free from the classic assumption of multicollinearity.

Heteroscedasticity Test

If there is heteroscedasticity in the regression, it causes a deviation from the classical assumptions, which means that the variants of the variables in the model are different or there is inequality. Glejser testing can be done to see a model of heteroscedasticity. The results of the heteroscedasticity test can be seen in Table 10 below.

Table 10. Heteroscedasticity Test Results

Variables	Significance	Description
Self-Efficacy (X_1)	0,662	No heteroscedasticity
Learning Motivation (X_2)	0,564	No heteroscedasticity
Learning Environment (M)	0,810	No heteroscedasticity

In order to find out whether the model used has heteroscedasticity or not, the Glejser test can be utilized. If the significance score is not lower than 0.05, it can be concluded that the model does not have symptoms of heteroscedasticity. However, if the significance value obtained is not higher than 0.05, the model has symptoms of heteroscedasticity. In the SPSS output, it can be seen that the significance value of the self-efficacy variable, learning motivation, and the learning environment variable is higher than 0.05, so it can be said that the model does not have symptoms of heteroscedasticity between the independent variables in the regression model.

Moderation Regression Test Results

In this research, a moderation regression test is used to test whether profitability is able to moderate the relationship between the independent variable and the dependent variable. The following are the results of the SPSS calculation.

Test Coefficient of Determination (R^2)

The value resulting from the coefficient of determination test shows the percentage of variation in the dependent variable that can explain the results through the resulting regression equation. The following is the coefficient of determination of the regression model in this research.

Table 11. Test Results of the Coefficient of Determination (R^2)

Variables	R	R Square
Self Efficacy (X_1), Learning Motivation (X_2), Learning Environment (M) → Academic Achievement	0.811	0.657

Based on Table 11, the adjusted R Square value is 0.657, or 65.7%. This shows the ability to explain the independent variables, namely self-efficacy, learning motivation, and learning environment (M), as moderating variables affecting the dependent variable, namely academic achievement by 65.7%, while the value of 34.3% is described by other things not listed in this research.

Simultaneous F Test

Table 12 below shows the simultaneous F-test value of the regression analysis model in the research conducted by the researcher:

Table 12 Simultaneous F Test Results

Variables	F	Sig,
Learning environment (M), Learning Motivation (X_2), Self Efficacy (X_1)	11.226	000

The simultaneous F test output obtained a significance level value of 0 and obtained an F score from the calculation of 11.226> F table 2.87. This means that all the independent variables used in this research simultaneously have a significant influence on the dependent variable.

Moderation Test Results

Below is the moderation test value.

Table 13 Moderation Regression Test Results - MRA

Variables	B	T	Sig
Constant	0,861	5,740	
Self Efficacy (X_1)	5,421	6,526	0,000
Learning Motivation (X_2)	1,040	3,139	0,000
Learning environment (M)	5,670	6,486	0,004
Self efficacy dengan Learning environment (X_1_M)	4,350	5,521	0,000
Learning Motivation with Learning environment ($X1\_M$)	3,094	2,426	0,032

Based on Table 13 above, the multiple linear regression model equation is as follows: $Y = 0.861 + 5.421X_1 + 1.040X_2 + 5.670M + 4.350X_1M + 3.094\ X_2M + e$. Based on the above equation, it can be seen that the relationship that occurs between each independent variable on academic achievement as the dependent variable is as follows:

1. α (constant) = 0.861, which means that self-efficacy, learning motivation, and learning environment have increased by 0.861 on academic achievement.
2. The self-efficacy variable shows a regression coefficient of 5.421. This means that every time self-efficacy increases by one, academic achievement increases by about 5.421, assuming other independent variables are constant.
3. The learning motivation variable shows a regression coefficient of 1.040. This means that every time learning motivation increases by one, academic achievement increases by about 1.040, assuming other independent variables are constant.
4. The learning environment variable shows a regression coefficient of 5.670. This means that every time the learning environment increases by 1, academic achievement increases by around 5.670, assuming that the other independent variables are constant.
5. The self-efficacy variable and the learning environment show a regression coefficient of 4.350. This means that every interaction of self-efficacy and the learning environment increases by 1, making academic achievement increase by around 4.350 with the assumption that the other independent variables are constant.
6. The variable of learning motivation and learning environment shows a regression coefficient of 3.094. This means that every interaction of learning motivation and learning environment increases by 1, making academic achievement increase by around 3.094, assuming other independent variables are constant.

Based on this data, the results were obtained:

1. Based on Table 13, the interaction of self-efficacy variables (X_1) results obtained a t-value of 6.526 with a significance level of 0.000, which is smaller than 0.05. So, self-efficacy affects academic achievement.
2. Based on Table 13, the results of the interaction of learning motivation variables (X_2) obtained the t value of 3.139 with a significance level of 0.000 which is smaller than 0.05. So, learning motivation affects academic achievement.
3. Based on Table 13, the interaction of self-efficacy variables (X_1) and the learning environment obtained a t value of 5.521 with a significance level of 0.000 which is smaller than 0.05. So, the learning environment can strengthen self-efficacy in academic achievement.
4. Based on Table 13, the interaction of learning motivation variables (X_2) and the learning environment obtained a t-value of 2.426 with a significance level of 0.032, which is smaller than

0.05. So, the learning environment can strengthen learning motivation and academic achievement.

Discussion

Self-efficacy has a significant relationship with student academic achievement. Self-efficacy refers to an individual's belief in his or her ability to complete tasks or achieve certain academic goals. This belief influences how students motivate themselves, behave in academic situations, and face learning challenges (Mehmood et al., 2019). Students with high levels of self-efficacy tend to be more active in seeking information, developing effective learning strategies, and persevering in completing academic tasks (Hwang et al., 2016).

Previous research shows a reciprocal relationship between self-efficacy and academic achievement, where the experience of previous academic success contributes more to increasing self-efficacy than other internal factors (Akomolafe et al., 2013). In addition, Honicke and Broadbent (2016) confirmed that high self-efficacy contributes to the effectiveness of information processing and increased academic achievement. This finding aligns with Alfinuha (2017), who stated that individuals with high self-efficacy are likelier to choose challenging tasks, persist in facing difficulties, and adjust learning strategies to overcome failure. It shows that self-efficacy in learning plays an important role in helping students achieve optimal academic results (Liu & Hou, 2021).

In addition to self-efficacy, learning motivation is an important factor contributing to academic success. Learning motivation is the internal drive that encourages individuals to achieve academic goals and complete tasks diligently. Students with intrinsic motivation tend to be more involved in the learning process, desire to understand the material deeply and show resilience in facing academic challenges (Supratno & Mochamad, 2021). Developing and maintaining positive learning motivation is key to achieving optimal academic performance, where students who feel driven and engaged in learning are more likely to reach their full academic potential.

Research results support that students with high levels of motivation tend to have better academic performance than students with low motivation (Tella, 2007). Strong motivation increases enthusiasm for learning and academic achievement (Hatlevik & Bjarnø, 2021). Successful students generally have higher achievement motivation than those less successful (Tella, 2007; Jehadus et al., 2022). Thus, educational institutions must create an environment that enhances learning motivation to promote optimal academic outcomes.

In addition to individual factors, a conducive learning environment supports student academic achievement. A good learning environment provides psychological and material support that can increase students' confidence and motivation to learn (Koseoglu, 2015). Access to adequate educational resources, such as a complete library, supporting technology, and comfortable learning facilities, can improve the quality of learning and students' understanding of academic material. In addition, an academic environment that supports students' emotional well-being contributes to better academic achievement (Mcaneney, 2019).

Usman and Madudili's research (2019) shows that a positive learning environment can form a sense of security and increase student confidence in facing academic challenges. In addition, a supportive learning environment contributes to shaping students' behavior patterns in seeking information and developing effective learning strategies (Monika & Adman, 2017). A healthy learning environment can increase learning motivation, leading to better academic achievement (Liaw & Huang, 2013; Karabulut et al., 2015). In this context, Lavoué et al. (2021) stated that learning motivation is one of the key factors determining students' academic success, as highly motivated individuals tend to direct their energy to activities that support learning and avoid distractions that hinder their academic achievement.

CONCLUSION

Self-efficacy significantly influences the academic achievement of Economics Education students at UIN Sultan Syarif Kasim Riau. Similarly, learning motivation contributes to improving students' academic achievement. In addition, the research findings reveal that the learning environment moderates the relationship between self-efficacy and academic achievement. A conducive learning environment can strengthen students' self-efficacy, provide psychological support, and create a more optimal learning atmosphere, thus improving academic achievement. Furthermore, the learning environment has also been proven to moderate the relationship between learning motivation and academic achievement. A healthy and productive environment can increase the spirit of learning, encourage students to achieve better academic results, and provide access to resources that support the learning process. Thus, improving the quality of the learning environment is an important factor in optimizing self-efficacy, learning motivation, and student academic achievement. Therefore, effective management of the learning environment is very important to support higher academic achievement.

BIBLIOGRAPHY

Akomolafe, M. J., Ogunmakin, A. O., & Fasooto, G. M. (2013). The role of academic self-efficacy, academic motivation and academic self-concept in predicting secondary school students' academic performance. *Journal of Educational and Social Research, 3*(2), 335-342. https://doi.org/10.5901/jesr.2013.v3n2p335

Alderman, M. K. (2013). *Motivation for achievement: Possibilities for teaching and learning*. New York: Routledge. https://doi.org/10.4324/9780203823132

Alfinuha, S. (2017). *Pengaruh self efficacy dan regulasi emosi terhadap subjective well-being mahasiswa baru teknik arsitektur UIN Maulana Malik Ibrahim Malang* (Thesis, Universitas Islam Negeri Maulana Malik Ibrahim).

Alyahyan, E., & Düştegör, D. (2020). Predicting academic success in higher education: literature review and best practices. *International Journal of Educational Technology in Higher Education, 17*(1), 3. https://doi.org/10.1186/s41239-020-0177-7

Alzubi, A. A. F., & Nazim, M. (2024). Students' intrinsic motivation in EFL academic writing: Topic-based interest in focus. *Heliyon, 10*(1). https://www.cell.com/heliyon/fulltext/S2405-8440(24)00200-7

Amrai, K., Motlagh, S. E., Zalani, H. A., & Parhon, H. (2011). The relationship between academic motivation and academic achievement students. *Procedia-Social and Behavioral Sciences, 15*, 399-402. https://doi.org/10.1016/j.sbspro.2011.03.111

Anders, Y., Rossbach, H. G., Weinert, S., Ebert, S., Kuger, S., Lehrl, S., & Von Maurice, J. (2012). Home and preschool learning environments and their relations to the development of early numeracy skills. *Early childhood research quarterly, 27*(2), 231-244. https://doi.org/10.1016/j.ecresq.2011.08.003

Arsad, M., & Ali, H. (2021). Factors influencing the Islamic education system: Funding, management, and educational institutions. *Jurnal Ekonomi Manajemen Sistem Informasi, 3*(1), 1-10. https://doi.org/10.31933/jemsi.v3i1.669

Baek, S. G., & Choi, H. J. (2002). The relationship between students' perceptions of classroom environment and their academic achievement in Korea. *Asia Pacific Education Review, 3*, 125-135. https://doi.org/10.1007/BF03024926

Bakar, K. A., Tarmizi, R. A., Mahyuddin, R., Elias, H., Luan, W. S., & Ayub, A. F. M. (2010). Relationships between university students' achievement motivation, attitude and academic performance in Malaysia. *Procedia-Social and Behavioral Sciences, 2*(2), 4906-4910. https://doi.org/10.1016/j.sbspro.2010.03.793

Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of management, 38*(1), 9-44. https://doi.org/10.1177/0149206311410606

Barth, J. M., Dunlap, S. T., Dane, H., Lochman, J. E., & Wells, K. C. (2004). Classroom environment influences on aggression, peer relations, and academic focus. *Journal of school psychology, 42*(2), 115-133. https://doi.org/10.1016/j.jsp.2003.11.004

Blašková, M. (2014). Influencing academic motivation, responsibility and creativity. *Procedia-Social and Behavioral Sciences, 159,* 415-425. https://doi.org/10.1016/j.sbspro.2014.12.399

Caprara, G. V., Vecchione, M., Alessandri, G., Gerbino, M., & Barbaranelli, C. (2011). The contribution of personality traits and self-efficacy beliefs to academic achievement: A longitudinal study. *British journal of educational psychology, 81*(1), 78-96. https://doi.org/10.1348/2044-8279.002004

Dian. (2016). Faktor-faktor yang mempengaruhi prestasi akademik: studi kasus pada mahasiswa Program Studi Akuntansi Universitas Semarang. *Jurnal Dinamika Sosial Budaya. 18* (1). http://dx.doi.org/10.26623/jdsb.v18i1.557

Harahap, Y. (2016). *Pengaruh motivasi belajar dan disiplin belajar terhadap prestasi belajar al-Qur'an Hadis kelas X MAN Binjai TA. 2015-2016* (Thesis, Pascasarjana UIN Sumatera Utara).

Hasbullah, H. (2018). Lingkungan pendidikan dalam al-qur'an dan hadis. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan, 4*(01), 13-26. https://doi.org/10.32678/tarbawi.v4i01.1768

Hasbullah, H., Juhji, J., & Maksum, A. (2019). Strategi belajar mengajar dalam upaya peningkatan hasil belajar pendidikan agama Islam. *Edureligia: Jurnal Pendidikan Agama Islam, 3*(1), 17-24. https://doi.org/10.33650/edureligia.v3i1.859

Hatlevik, O. E., & Bjarnø, V. (2021). Examining the relationship between resilience to digital distractions, ICT self-efficacy, motivation, approaches to studying, and time spent on individual studies. *Teaching and Teacher Education*, *102*, 103326. https://doi.org/10.1016/j.tate.2021.103326

Hayikaleng, N., Nair, S. M., & Krishnasamy, H. N. (2016). Thai students' motivation on English reading comprehension. *International journal of education and research, 4(*6), 477-486.

Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational research review, 17,* 63-84. https://doi.org/10.1016/j.edurev.2015.11.002

Hwang, M. H., Choi, H. C., Lee, A., Culver, J. D., & Hutchison, B. (2016). The relationship between self-efficacy and academic achievement: A 5-year panel analysis. *The Asia-Pacific Education Researcher, 25*, 89-98. https://doi.org/10.1007/s40299-015-0236-3

Ikhwan, A. (2014). Integrasi pendidikan Islam (Nilai-nilai Islami dalam pembelajaran). *Ta'allum: Jurnal Pendidikan Islam, 2*(2), 179-194. https://doi.org/10.21274/taalum.2014.2.2.179-194

Jayanthi, S. V., Balakrishnan, S., Ching, A. L. S., Latiff, N. A. A., & Nasirudeen, A. M. A. (2014). Factors contributing to academic performance of students in a tertiary institution in Singapore. *American Journal of Educational Research, 2*(9), 752-758.

Jehadus, E., Tamur, M., Chen, J., & Perbowo, K. S. (2022). The influence of tutoring and learning motivation on mathematics achievement of junior high school students. *Journal of Honai Math*, *5*(1), 75-82. https://doi.org/10.30862/jhm.v5i1.206

Karabulut, N., Aktaş, Y. Y., & Alemdar, D. K. (2015). The relationship of clinical learning environment to nursing students' academic motivation. *Kontakt*, *17*(1), e6-e12. https://doi.org/10.1016/j.kontakt.2015.01.003

Kardini, N. L., Elshifa, A., Adiawaty, S., & Wijayanti, T. C. (2023). The role of quality human resources in developing missions of future universities in Indonesian higher education. *Munaddhomah: Jurnal Manajemen Pendidikan Islam, 4*(1), 49-59. https://doi.org/10.31538/munaddhomah.v4i1.342

Köseoglu, Y. (2015). Self-Efficacy and Academic Achievement--A Case from Turkey. *Journal of Education and Practice*, *6*(29), 131-141.

Kweon, B. S., Ellis, C. D., Lee, J., & Jacobs, K. (2017). The link between school environments and student academic performance. *Urban forestry & urban greening, 23*, 35-43. https://doi.org/10.1016/j.ufug.2017.02.002

Lavoué, E., Ju, Q., Hallifax, S., & Serna, A. (2021). Analyzing the relationships between learners' motivation and observable engaged behaviors in a gamified learning environment. *International Journal of Human-Computer Studies*, *154*, 102670. https://doi.org/10.1016/j.ijhcs.2021.102670

Liaw, S. S., & Huang, H. M. (2013). Perceived satisfaction, perceived usefulness and interactive learning environments as predictors to self-regulation in e-learning environments. *Computers & education*, *60*(1), 14-24. https://doi.org/10.1016/j.compedu.2012.07.015

Liu, Y. M., & Hou, Y. C. (2021). Effect of multi-disciplinary teaching on learning satisfaction, self-confidence level and learning performance in the nursing students. *Nurse Education in Practice*, *55*, 103128. https://doi.org/10.1016/j.nepr.2021.103128

Lo, K. W., Ngai, G., Chan, S. C., & Kwan, K. P. (2022). How students' motivation and learning experience affect their service-learning outcomes: A structural equation modeling analysis. *Frontiers in Psychology, 13*, 825902. https://doi.org/10.3389/fpsyg.2022.825902

Manurung, T. M. S. (2017). Pengaruh motivasi dan perilaku belajar terhadap prestasi akademik mahasiswa. *JAS-PT (Jurnal Analisis Sistem Pendidikan Tinggi Indonesia), 1*(1), 17-26.

McAneney, C. (2019). *A Can-do Attitude: Understanding Self-efficacy*. The Rosen Publishing Group, Inc.

Mehmood, A., Adnan, M., Shahzad, A., & Shabbir, F. (2019). The effect of self-efficacy on academic performance at higher level of learning: A case study of Punjab University Lahore. *Journal of Educational Sciences, 6*(1), 33-47.

Monika, M., & Adman, A. (2017). Peran efikasi diri dan motivasi belajar dalam meningkatkan hasil belajar siswa sekolah menengah kejuruan. *Jurnal pendidikan manajemen perkantoran*, *2*(2), 219-226. https://doi.org/10.17509/jpm.v2i2.8111

Musa, M. (2020). Academic self-efficacy and academic performance among university undergraduate students: An antecedent to academic success. *European Journal of Education Studies, 7*(3). https://doi.org/10.46827/EJES.V0I0.3005

Ning, H. K., & Downing, K. (2012). Influence of student learning experience on academic performance: The mediator and moderator effects of self-regulation and motivation. *British Educational Research Journal, 38*(2), 219-237. https://doi.org/10.1080/01411926.2010.538468

Nurrahmaniah, N. (2019). Peningkatan prestasi akademik melalui manajemen waktu (time management) dan minat belajar. Andragogi: *Jurnal Pendidikan Islam dan Manajemen Pendidikan Islam, 1*(1), 149-176. https://doi.org/10.36671/andragogi.v1i1.52

Octavia, S. A. (2020). *Motivasi belajar dalam perkembangan remaja.* Deepublish.

Ozcan, M. (2021). Factors affecting students' academic achievement according to the teachers' opinion. *Education Reform Journal, 6*(1), 1-18. http://dx.doi.org/10.22596/erj2021.06.01.1.18

Parr, J. M., & Townsend, M. A. (2002). Environments, processes, and mechanisms in peer learning. *International journal of educational research, 37*(5), 403-423. https://doi.org/10.1016/S0883-0355(03)00013-2

Phan, H. P. (2012). Relations between informational sources, self-efficacy and academic achievement: A developmental approach. *Educational Psychology, 32*(1), 81-105. https://doi.org/10.1080/01443410.2011.625612

Qomariyah, N., & Lestari, S. (2016). *Efikasi diri, ketidaknyamanan terhadap tugas, dan konformitas teman sebaya sebagai prediktor prokrastinasi akademik* (Thesis, Universitas Muhammadiyah Surakarta).

Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2023). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments, 31*(4), 2371-2391. https://doi.org/10.1080/10494820.2021.1884886

Rahayu, P. (2024). Optimizing the quality of superior education in Darul Huda STIES' Colleges through hr management strategies. *Journal of Social and Economics Research, 6*(1), 2371-2380. https://doi.org/10.54783/jser.v6i1.634

Sevim, N., Erol, O., & Gülsoy, V. G. B. (2023). Examination of the correlation between e-learning readiness and achievement goal orientation of college students. *Journal of Educational Technology and Online Learning, 6*(1), 184-201. https://doi.org/10.31681/jetol.1184739

Shi, Y., Tong, M., & Long, T. (2021). Investigating relationships among blended synchronous learning environments, students' motivation, and cognitive engagement: A mixed methods study. *Computers & Education, 168,* 104193. https://doi.org/10.1016/j.compedu.2021.104193

Siregar, N., Siregar, N., Fitriawan, D., Simanjuntak, E., & Rangkuti, Y. M. (2024). Gender differences in academic performance: The role of self-efficacy and learning motivation. *Mosharafa: Jurnal Pendidikan Matematika, 13*(2), 503-516. https://doi.org/10.31980/mosharafa.v13i2.1682

Supratno, Y. H., & Mochamad, W. (2021). The Influence of Student Motivation, School Environment, on Student Learning Achievement. In *Journal of Physics: Conference Series* (Vol. 1823, No. 1, p. 012089). IOP Publishing. https://doi.org/10.1088/1742-6596/1823/1/012089

Tella, A. (2007). The impact of motivation on student's academic achievement and learning outcomes in mathematics among secondary school students in Nigeria. *Eurasia Journal of Mathematics, Science and Technology Education*, *3*(2), 149-156. https://doi.org/10.12973/ejmste/75390

Tohidi, H., & Jabbari, M. M. (2012). The effects of motivation in education. *Procedia-social and behavioral Sciences, 31*, 820-824. https://doi.org/10.1016/j.sbspro.2011.12.148

Urhahne, D., & Wijnia, L. (2023). Theories of motivation in education: An integrative framework. *Educational Psychology Review, 35*(2), 45. https://doi.org/10.1007/s10648-023-09767-9

Usman, Y. D., & Madudili, C. G. (2019). Evaluation of the Effect of Learning Environment on Students' Academic Performance in Nigeria. *Online Submission*.

Venugopal-Wairagade, G. (2016). Creating a supportive learning environment for better student engagement. In 2016 *International Conference on Learning and Teaching in Computing and Engineering (LaTICE)* (pp. 71-75). IEEE. https://doi.org/10.1109/LaTiCE.2016.26

Wei, Y., Shi, Y., MacLeod, J., & Yang, H. H. (2022). Exploring the factors that influence college students' academic self-efficacy in blended learning: A study from the personal, interpersonal, and environmental perspectives. *Sage Open, 12*(2), 21582440221104815. https://doi.org/10.1177/21582440221104815

Yahya, M., & Nur, H. (2023). The impact of a conducive learning environment on learning motivation and student achievement in vocational schools. In *2nd world conference on social and humanities research (W-SHARE 2022)* (pp. 199-206). Atlantis Press. https://doi.org/10.2991/978-2-38476-084-8_27

Zuffianò, A., Alessandri, G., Gerbino, M., Kanacri, B. P. L., Di Giunta, L., Milioni, M., & Caprara, G. V. (2013). Academic achievement: The unique contribution of self-efficacy beliefs in self-regulated learning beyond intelligence, personality traits, and self-esteem. *Learning and individual differences, 23,* 158-162. https://doi.org/10.1016/j.lindif.2012.07.010