



## The Effect of Self-Efficacy on Learning Autonomy among Elementary School Students

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### Abstracts

*The problem addressed in this study is the relatively low level of learning independence among fifth grade students at Sekolah Dasar Aisyiyah Candipuro, which is assumed to be influenced by their level of self-efficacy. The purpose of this research is to analyze the influence of self-efficacy on students' learning independence. This study employed a quantitative approach with an ex post facto research design, since the variables had naturally occurred without any experimental treatment from the researcher. The participants were all fifth grade students of Sekolah Dasar Aisyiyah Candipuro. Data were collected using a closed-ended questionnaire based on a Likert scale to measure students' self-efficacy and learning independence, and the instrument had been tested for validity and reliability prior to implementation. Data analysis was conducted using descriptive statistics to describe the level of self-efficacy and learning independence, and inferential statistics in the form of simple linear regression to examine the effect of self-efficacy on learning independence. The results revealed that self-efficacy was in the sufficient to good category, learning independence was in the sufficient category, and self-efficacy had a significant positive effect on students' learning independence.*

**Keywords:** Self-Efficacy; Learning Independence; Quantitative Research

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### 1. Introduction

Learning independence is one of the essential competencies that need to be developed from the elementary education level because it supports students in becoming active and responsible learners. Students who possess learning independence are able to take initiative in the learning process, manage their study time effectively, determine appropriate learning strategies, and complete academic tasks without excessive dependence on teachers and parents. As emphasized by (Tasya, 2024; Syamsudin, 2023), learning independence reflects students' ability to regulate their own learning activities and demonstrate responsibility for their academic progress. Furthermore, learning independence contributes to the formation of positive learning habits and long-term self-regulation skills that are important for success at higher levels of education (Shegefandini & Sari, 2024).

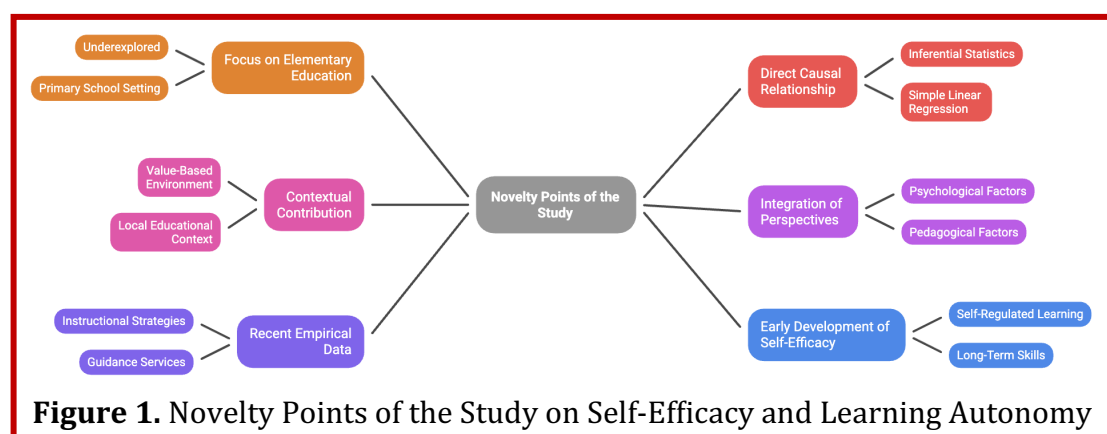
The cultivation of learning independence at the elementary level is therefore not merely related to academic achievement, but also to the development of students' character and lifelong learning skills. Through independent learning practices, students gradually develop discipline, perseverance, and accountability in completing tasks. These qualities enable them to adapt to various learning demands and challenges. As noted in previous research, students who are accustomed to learning independently

tend to demonstrate better engagement and more consistent learning behaviors over time (Pratiwi et al., 2023; Ayusadewi & Suartama, 2024). However, empirical conditions indicate that not all elementary school students have achieved optimal levels of learning independence. Some students still exhibit passive learning behaviors, wait for direct instructions from teachers, and rely heavily on parental assistance when completing assignments. In addition, a number of students show a lack of confidence in finishing tasks independently and are easily discouraged when facing academic difficulties. Such patterns are inconsistent with the characteristics of independent learners described in earlier studies (Far et al., 2024).

These conditions suggest the presence of internal psychological factors that influence students' ability to learn independently. The development of learning independence cannot be separated from students' internal beliefs, motivation, and self-regulatory capacities (Abdul et al., 2022; Rosmaria, 2024; Prasista et al., 2025). When these psychological aspects are not well developed, students may struggle to take initiative and maintain persistence in learning. Therefore, strengthening internal factors that support self-regulation and positive learning habits is essential to enhance learning independence at the elementary education level (Fauzana et al., 2025).

Research on the effect of self-efficacy on learning autonomy among elementary school students shows that self-efficacy plays a central role in shaping students' motivation, persistence, and self-regulation (Kori et al., 2025; Choo & Lim, 2025; Ulfah & Malik, 2025). Studies indicate that students with strong self-efficacy tend to demonstrate higher levels of initiative, strategic learning behavior, and responsibility for academic tasks (Auralia & Juliani, 2024) (Rahmadhani & Budiraharjo, 2024). Learning autonomy is also associated with the development of self-regulated learning skills and long-term academic success (Hidayati & Minsih, 2023; Scholes et al., 2022). However, most empirical studies focus on secondary or higher education contexts, while research specifically examining elementary school students remains limited, particularly in local school settings. This gap suggests that the relationship between self-efficacy and learning autonomy at the primary education level has not been comprehensively explored, even though early educational stages are critical for forming independent learning habits (Amini et al., 2022; Efendi et al., 2023; Nugraheni et al., 2025).

The existing problem lies in the inconsistent development of learning autonomy among elementary school students, many of whom still rely heavily on teacher guidance and parental assistance (Fadila et al., 2025; Reid & Razza, 2021). Limited self-confidence in academic abilities often leads to passive participation, low initiative, and avoidance of challenging tasks (Doumas et al., 2022). These conditions present significant challenges for educators in fostering student-centered learning environments and strengthening internal motivational factors. Variations in students' psychological readiness, classroom practices, and instructional support further complicate efforts to enhance self-efficacy and autonomy simultaneously (Ardiansyah et al., 2023; Bang et al., 2022). Therefore, a more focused investigation is required to clarify how self-efficacy contributes to learning autonomy in elementary contexts and to provide empirical evidence that can guide the design of effective instructional strategies and school-based interventions.



The novelty of this study lies in several interconnected aspects. First, it focuses on elementary education, a level that remains relatively underexplored in research on self-efficacy and learning autonomy, particularly within primary school settings. Second, it examines the direct causal relationship between self-efficacy and learning autonomy through inferential statistical analysis, specifically simple linear regression, providing stronger empirical evidence (Liu, 2025; Amada & Purwanto, 2025; Gong & Mauhay, 2025). Third, the study offers a contextual contribution by being conducted in a value-based and local educational environment, enriching the literature with findings grounded in a specific primary school context. In addition, it integrates psychological and pedagogical perspectives by positioning self-efficacy as a key internal factor influencing learning autonomy (Syafii & Azhari, 2025). Finally, the study provides recent empirical data that can support the development of instructional strategies and guidance services, while emphasizing the importance of fostering self-efficacy early in order to strengthen self-regulated learning and long-term academic skills.

Aisyiyah Candipuro Elementary School, based on initial observations, still shows the presence of students who have not demonstrated independent learning behaviors. Several students frequently wait for teachers' directions, display limited confidence in the results of their own work, and depend on assistance from others when completing assignments. Such conditions indicate the need to further examine factors influencing students' learning independence, particularly from a psychological perspective. These behaviors are reflected in low learning initiative, limited academic decision-making skills, and insufficient confidence when facing learning tasks. Students often avoid academic challenges and demonstrate a high level of dependence on authority figures, resulting in a learning process that is not fully student-centered. This situation affects the overall effectiveness of classroom instruction and has the potential to hinder the development of lifelong learning skills. A deeper understanding of internal factors influencing learning independence, especially students' beliefs in their own abilities or self-efficacy, is essential. Such understanding can serve as a foundation for designing more targeted instructional strategies and guidance services to strengthen independent learning behavior.

## 2. Research Methods

This study uses a quantitative approach with the type of ex post facto research, which is research that examines the relationship between variables without providing direct treatment to the research subject (Albayrak, 2025; Choi, 2024). This approach aims to examine the effect of self-efficacy on student learning independence based on empirical data obtained from respondents. This research was carried out at SD Aisyiyah

Candipuro. The research implementation time is carried out in the even semester of the 2025/2026 school year, namely from September to October 2025, which includes the stage of instrument preparation, data collection, and data analysis. The selection of the location and time of the research was adjusted to the academic conditions of the school and the availability of students as research respondents. The subject of the study was a 5th grade student of SD Aisyiyah Candipuro. The research population includes all students at that level, while the sampling technique is adjusted to the number of populations, namely using total sampling if the population is relatively small, or random sampling if the population is large enough.

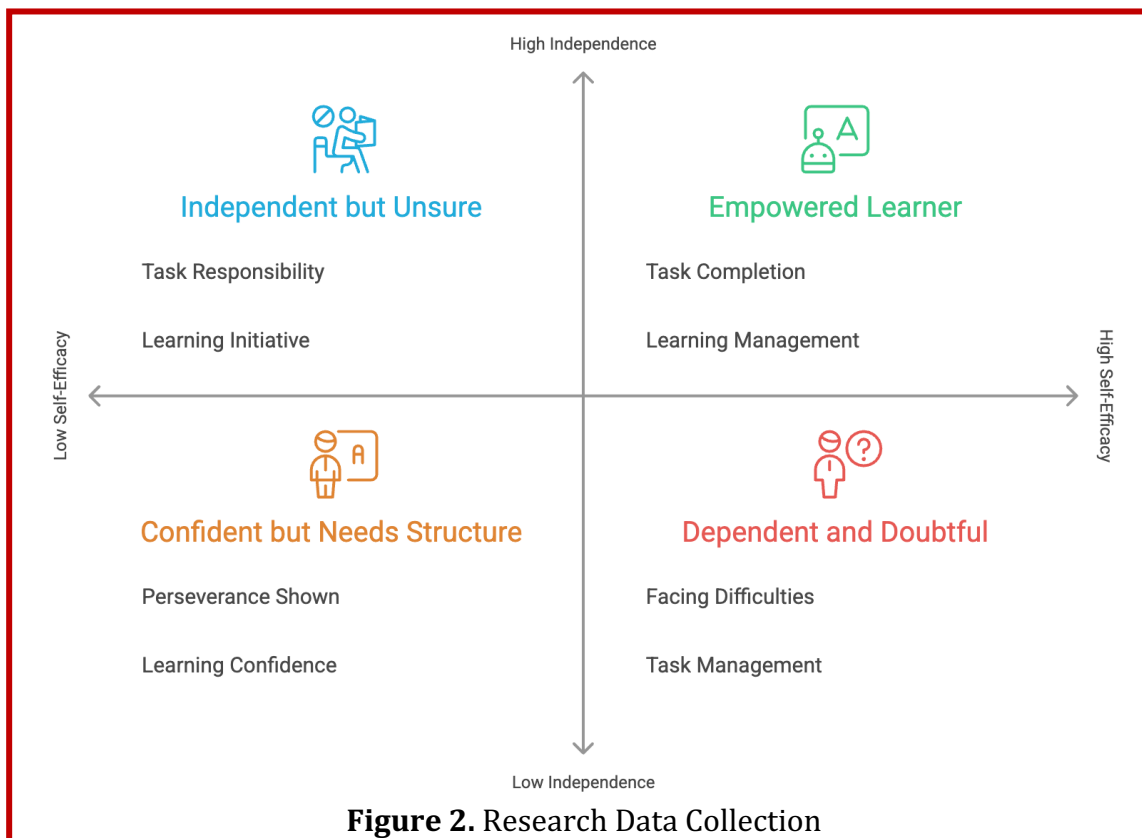
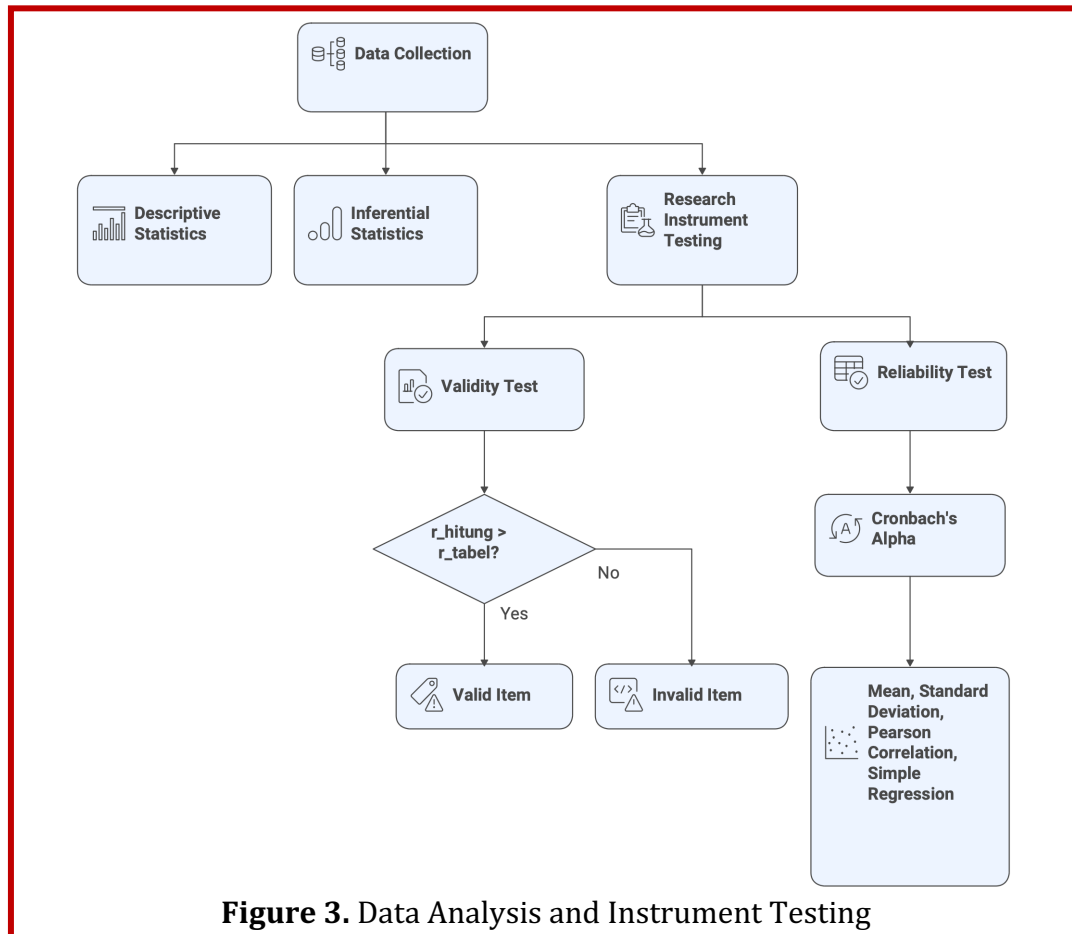


Figure 2 illustrates the conceptual framework used in the research data collection process, which maps students' learning profiles based on two primary dimensions: self-efficacy (horizontal axis) and learning independence (vertical axis). The intersection of these dimensions forms four quadrants representing distinct learner characteristics (Hidayat, 2021; Matsuri et al., 2023). The upper-right quadrant, labeled *Empowered Learner*, represents students with high self-efficacy and high independence, characterized by effective task completion and strong learning management skills (Annisyah & Munisah, 2025; Puspita et al., 2023; Yao, 2021). In contrast, the upper-left quadrant, *Independent but Unsure*, includes students who demonstrate high independence but low self-efficacy, as reflected in their willingness to take responsibility and initiate learning despite limited confidence in their abilities.

The lower-right quadrant, *Dependent and Doubtful*, represents students with high self-efficacy but low independence, often experiencing difficulties in managing tasks and sustaining autonomous engagement (Julian & Gente, 2022; Safira & Wicaksono, 2023). Meanwhile, the lower-left quadrant, *Confident but Needs Structure*, characterizes students with low self-efficacy and low independence, who may show perseverance and

some degree of learning confidence but still require structured guidance (Haerudin, 2023). This quadrant-based classification provides a systematic approach to understanding variations in students' psychological and behavioral learning patterns, thereby supporting more targeted instructional strategies and interventions.



**Figure 3.** Data Analysis and Instrument Testing

The figure illustrates a systematic process of data analysis and instrument testing in the research procedure, beginning with data collection and continuing through inferential statistical analysis (Khairunnisa & Sapri, 2025). After the data were gathered, descriptive statistics were first calculated to determine the Mean Score and Standard Deviation, which provided an overview of the central tendency and dispersion of students' responses (Hidayat, 2021). The mean score indicates the average level of the measured variables, while the standard deviation reflects the degree of variability among participants, thereby offering initial insight into data distribution and consistency. Subsequently, inferential analysis was conducted using Pearson Correlation Analysis to examine the strength and direction of the relationship between variables (Wati & Mahendra, 2025; Moosavi & Eslamloo, 2024). The correlation results were interpreted based on the significance level of 0.01 (2-tailed), indicating that relationships were considered statistically significant when the probability value was less than 0.01. This sequential analytical procedure ensures that the findings are both descriptively informative and statistically valid in explaining the relationships among the research variables.

### 3. Results and Discussion

#### 3.1 Results

The results of the descriptive analysis show that the level of self-efficacy of students of SD Aisyiyah Candipuro is in the category of sufficient to good. Most students show relatively positive confidence in their ability to complete study assignments, although there are still some students who feel doubtful when faced with tasks that are considered difficult. This condition shows that student confidence in the learning context has begun to form, but it is not completely evenly distributed to all students.

#### Response Distribution for Self-Efficacy

The overall distribution of students' self-efficacy responses was analyzed to obtain a comprehensive understanding of their level of confidence in academic abilities. The questionnaire consisted of ten statements answered by 30 students, resulting in a total of 300 responses. Each response was categorized into four Likert-scale options: Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly Disagree (STS). The aggregation of these responses provides a general overview of the students' perceived self-efficacy. The calculation of percentages was conducted by dividing the total frequency of each response category by the overall number of responses (300), then multiplying by 100 percent. This approach allows for a clearer interpretation of response dominance and facilitates the identification of general response trends. The following table presents the overall percentage distribution of student self-efficacy responses.

**Table 1.** Overall Percentage of Student Self-Efficacy Responses

Response Category	Total Responses	Percentage (%)
Strongly Agree (SS)	79	26.3%
Agree (S)	137	45.7%
Disagree (TS)	62	20.7%
Strongly Disagree (STS)	22	7.3%
Total	300	100%

*Source: SS = Strongly Agree; S = Agree; TS = Disagree; STS = strongly disagree*

The table shows that the majority of responses fall within the positive categories. The Agree category represents the highest proportion at 45.7%, followed by Strongly Agree at 26.3%. Combined, these positive responses account for 72.0% of the total responses, indicating that most students perceive themselves as having adequate confidence in handling academic tasks. Negative responses, consisting of Disagree (20.7%) and Strongly Disagree (7.3%), make up 28.0% of the total responses. Although this proportion is considerably lower than the positive responses, it still reflects that a number of students experience uncertainty or lower levels of self-belief. Overall, the findings suggest that students' self-efficacy is generally in the moderate to good category, with positive confidence tendencies prevailing among the majority of respondents.

Based on the results of the data processing of self-efficacy questionnaire data for students of SD Aisyiyah Candipuro, in general, an idea was obtained that the level of student self-efficacy was in the category of sufficient to good. This can be seen from the dominance of Agree and Strongly Agree answers in almost all of the statements submitted. These findings show that most students have had quite positive confidence

in their ability to face study assignments at school. On the indicator of confidence in completing assignments, the majority of students stated that they were confident that they could do their schoolwork well and believed in their own abilities. This indicates that students have an adequate foundation of academic confidence. However, there are still a number of students who give Disagree and Strongly Disagree responses, which shows that there are some students who still feel doubtful about their ability to complete tasks independently.

### Response Distribution for Learning Independence

This condition reflects the unyielding attitude that has begun to develop in students. However, there are also students who tend to be less persistent and give up easily when faced with challenging tasks, which is reflected in the negative response to some of the statements. Meanwhile, on the indicator of confidence in learning, most students stated that they dare to try to do their own problems and were confident that they could complete the task without always being helped by others. This shows that student self-efficacy has been formed, although it is not completely evenly distributed to all respondents. Overall, the results of this self-efficacy questionnaire show that students of SD Aisyiyah Candipuro have good self-confidence, but still need strengthening, especially for students who show a relatively low level of self-efficacy.

The overall percentage distribution of students' learning independence responses was calculated to provide a comprehensive overview of their level of autonomous learning behavior. The questionnaire consisted of ten statements completed by 30 students, resulting in a total of 300 responses. Each response was categorized into four Likert-scale options: Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly Disagree (STS). This aggregation enables a general assessment of students' tendencies toward independent learning practices. The percentage for each category was obtained by dividing the total frequency of responses in each category by the total number of responses (300) and multiplying the result by 100 percent. This method allows for a clearer interpretation of the dominant response patterns and provides a more concise representation of students' overall learning independence. The results are presented in the following table.

**Table 2.** Overall Percentage of Student Learning Independence Responses

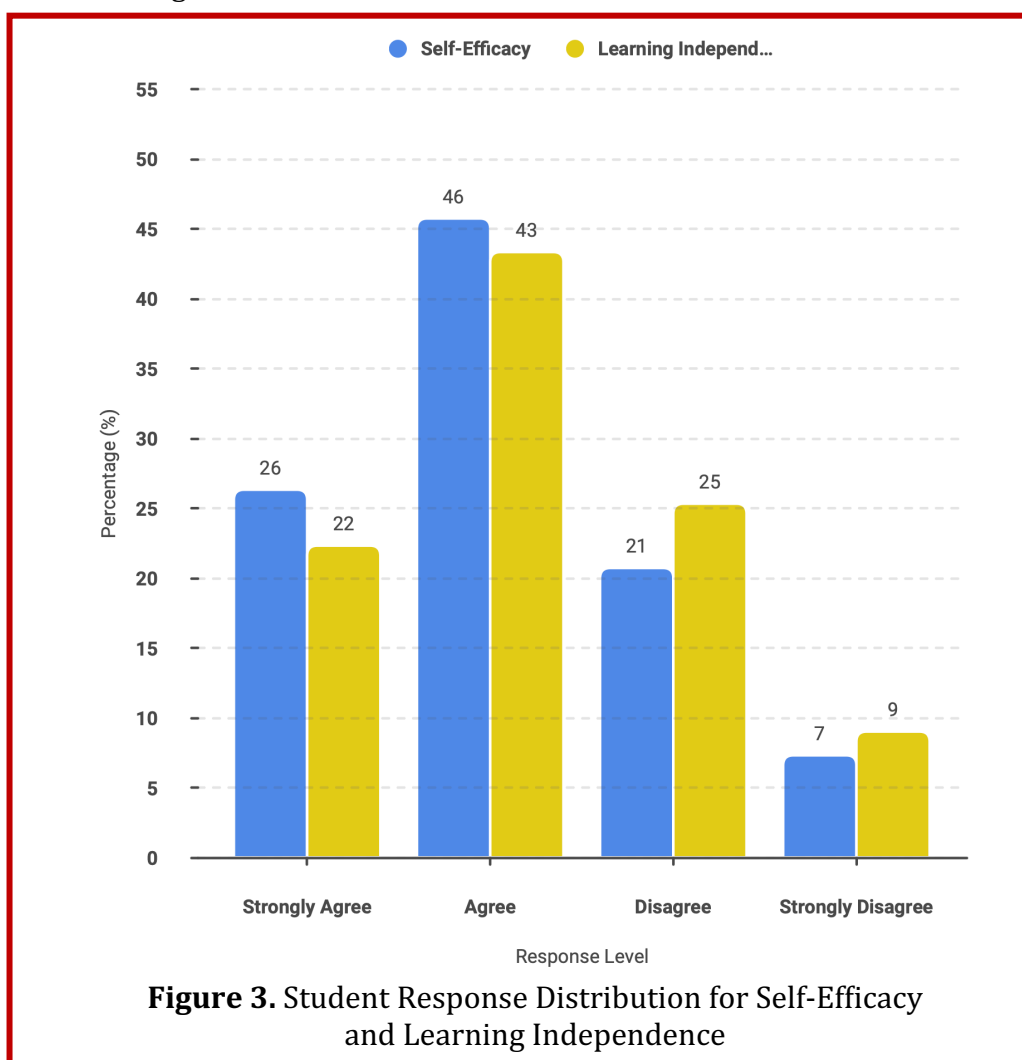
Response Category	Total Responses	Percentage (%)
Strongly Agree (SS)	67	22.3%
Agree (S)	130	43.3%
Disagree (TS)	76	25.3%
Strongly Disagree (STS)	27	9.0%
Total	300	100%

*Source: SS = Strongly Agree; S = Agree; TS = Disagree; STS = strongly disagree*

The data indicate that the majority of responses fall into the positive categories. The Agree category accounts for the highest percentage at 43.3%, followed by Strongly Agree at 22.3%. When combined, these positive responses represent 65.6% of the total responses, suggesting that most students demonstrate a moderate level of learning independence. Negative responses, consisting of Disagree (25.3%) and Strongly Disagree (9.0%), account for 34.3% of the total responses. This proportion, although smaller than the positive responses, indicates that a considerable number of students

still experience challenges in consistently practicing independent learning behaviors. Overall, the findings suggest that students' learning independence is at a moderate level, with positive tendencies prevailing but still requiring further reinforcement and development.

The results of the analysis of the student learning independence questionnaire show that the level of learning independence of SD Aisyiyah Candipuro students is in the sufficient category. This is characterized by the dominance of Agree answers in most statements, but also followed by a relatively higher number of Disagree responses compared to self-efficacy questionnaires. These findings suggest that even though students have demonstrated self-learning behaviors, dependence on teachers and the learning environment is still quite visible. In the learning initiative indicator, some students stated that they had done assignments without always having to be told and tried to do their own assignments first. However, there are still students who have not shown optimal learning initiative, especially in terms of starting to study independently without encouragement from teachers.



This shows that students' learning independence is still at the stage of development and requires continuous habituation. In the indicator of responsibility for tasks, most students stated that they tried to complete the task on time and did not cheat on their friends' work. These findings show that there is a student awareness of

academic responsibility that is beginning to form. However, there are still a number of students who are not fully consistent in carrying out these responsibilities, which is reflected in the negative response to some statements. Furthermore, in the indicator of learning process management, the results of the questionnaire show that students' ability to manage learning time and manage learning activities independently still needs to be improved. Some students still depend on the direction of the teacher in determining how to learn and are not yet fully able to control their own learning process. Overall, the results of the learning independence questionnaire show that SD Aisyiyah Candipuro students already have sufficient learning independence, but still need support and learning strategies that encourage students to be more independent and responsible in the learning process.

### Correlation Analysis between Self-Efficacy and Learning Independence

This section presents the results of the statistical analysis examining the relationship between self-efficacy and learning independence among elementary school students. Prior to conducting inferential testing, descriptive statistics were calculated to obtain the Mean Score and Standard Deviation of each variable. These measures provide an overview of students' average levels of self-efficacy and learning independence, as well as the variability of their responses. The mean score reflects the general tendency of students' perceptions, while the standard deviation indicates how consistently students responded to the questionnaire items. Following the descriptive analysis, Pearson Correlation Analysis was employed to determine the strength and direction of the relationship between the two variables. The correlation test was conducted using a two-tailed significance level of 0.01 to ensure statistical rigor. This approach allows the researcher to identify whether the observed relationship between self-efficacy and learning independence is statistically significant and not due to chance.

**Table 3.** Mean Score and Standard Deviation

	Self-Efficacy	Learning Independence
<b>Self-Efficacy</b>		
Pearson Correlation	1	.620**
Sig. (2-tailed)		.000
N	300	300
<b>Learning Independence</b>		
Pearson Correlation	.620**	1
Sig. (2-tailed)	.000	
N	300	300

Based on Table 3, the Pearson correlation coefficient between self-efficacy and learning independence is 0.620. This value indicates a positive and moderately strong relationship between the two variables. The positive direction of the correlation suggests that higher levels of self-efficacy are associated with higher levels of learning independence among students. The significance value (Sig. 2-tailed) of 0.000 is lower than the 0.01 significance level, indicating that the correlation is statistically significant at the 0.01 level. This means that the probability of the relationship occurring by chance is extremely small. Therefore, it can be concluded that there is a significant relationship between students' self-efficacy and their learning independence.

The sample size ( $N = 300$ ) shows that the analysis was conducted on data obtained from 30 respondents. The consistency of the number of participants in both variables strengthens the validity of the correlation results. With a sufficient sample size for elementary-level research, the findings provide credible evidence of the association between the variables studied. Overall, the results demonstrate that self-efficacy plays an important role in fostering students' learning independence. Students who believe in their abilities, persist in completing tasks, and demonstrate confidence in overcoming learning challenges tend to show greater autonomy in managing their learning activities. These findings support the theoretical assumption that psychological factors, particularly self-efficacy, contribute significantly to the development of independent learning behavior.

### Regression Analysis of the Effect of Self-Efficacy on Learning Independence

This section presents the results of the regression analysis conducted to examine the predictive effect of self-efficacy on learning independence. After confirming the existence of a significant correlation between the variables, a simple linear regression analysis was performed to determine the extent to which self-efficacy contributes to explaining variations in students' learning independence. This analysis allows the researcher to move beyond identifying relationships and to assess the magnitude and direction of influence. The regression model positions self-efficacy as the independent variable and learning independence as the dependent variable. The analysis includes unstandardized coefficients (B), standardized coefficients (Beta), t-values, and significance levels. The significance criterion was set at the 0.01 level (2-tailed), meaning that results are considered statistically significant when the probability value is less than 0.01. This procedure ensures that the conclusions drawn from the model are statistically reliable.

**Table 4. Correlation is significant at the 0.01 level (2-tailed).**

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.120	.485		2.31	.028
Self-Efficacy	.580	.128	.620	4.52	.000

a. Dependent Variable: Learning Independence

Based on Table 4, the constant value ( $B = 1.120$ ) indicates the baseline level of learning independence when self-efficacy is assumed to be zero. Although this situation is theoretical, the constant provides a reference point in constructing the regression equation. The significance value of 0.028 for the constant shows that it is statistically significant at the 0.05 level. The unstandardized coefficient for self-efficacy ( $B = 0.580$ ) indicates that every one-unit increase in self-efficacy is associated with an increase of 0.580 units in learning independence. This positive coefficient demonstrates that self-efficacy has a direct and positive effect on students' independent learning behavior. The standardized coefficient (Beta = 0.620) further confirms the strength of this effect in standardized terms.

The t-value of 4.52 with a significance level of 0.000 indicates that the effect of self-efficacy on learning independence is statistically significant at the 0.01 level (2-tailed). Since the significance value is lower than 0.01, the null hypothesis is rejected. This finding confirms that self-efficacy significantly predicts learning independence among elementary school students. Overall, the regression results demonstrate that

self-efficacy is a meaningful predictor of learning independence. Students who possess higher confidence in their abilities, persistence in completing tasks, and belief in overcoming learning challenges tend to demonstrate stronger autonomy in managing their learning activities. These findings reinforce the theoretical perspective that psychological factors, particularly self-efficacy, play a crucial role in fostering independent learning development.

### **Pearson Correlation between Self-Efficacy and Learning Independence**

This section presents the results of the Pearson Product-Moment Correlation analysis conducted to examine the relationship between self-efficacy and learning independence among elementary school students. The analysis was performed to determine both the strength and direction of the association between the two variables. Pearson correlation is appropriate for measuring linear relationships between continuous variables and provides a clear statistical basis for interpreting the degree of association. The correlation test was conducted using a two-tailed significance level to ensure statistical accuracy. The sample consisted of 30 students, and the analysis aimed to verify whether higher levels of self-efficacy are associated with higher levels of learning independence. The results of this analysis are summarized in Table 5.

**Table 5.** Pearson Correlation Between Self-Efficacy and Learning Independence

Variables	r-value	Sig. (2-tailed)	Interpretation
Self-Efficacy ↔ Learning Independence	0.62	0.000	Moderate Positive Correlation

The correlation coefficient ( $r = 0.62$ ) indicates a moderate positive relationship between self-efficacy and learning independence. This value suggests that the two variables move in the same direction, meaning that an increase in self-efficacy is associated with an increase in learning independence. The magnitude of 0.62 falls within the range typically interpreted as a moderate correlation. The significance value (Sig. 2-tailed) of 0.000 is lower than 0.05, indicating that the correlation is statistically significant. This means that the probability of the relationship occurring by chance is very small. Therefore, the null hypothesis stating that there is no relationship between self-efficacy and learning independence can be rejected.

The sample size ( $N = 30$ ) strengthens the credibility of the findings within the context of this study. The consistency of data across respondents supports the reliability of the observed correlation. The statistical evidence confirms that the relationship between the variables is meaningful and empirically supported. Overall, these findings suggest that students with higher self-efficacy tend to demonstrate greater learning independence. Confidence in one's abilities, persistence in facing academic challenges, and belief in achieving learning goals contribute positively to students' autonomy in managing their own learning activities. This result supports theoretical perspectives emphasizing the important role of self-efficacy in promoting independent learning behavior.

### **Simple Linear Regression Analysis**

This section presents the results of the simple linear regression analysis conducted to examine the predictive effect of self-efficacy on learning independence. After establishing a significant correlation between the two variables, regression analysis was applied to determine how much variance in learning independence can be

explained by self-efficacy. This analysis provides deeper insight into the extent to which self-efficacy contributes to students' independent learning behavior. In this model, self-efficacy functions as the independent variable, while learning independence serves as the dependent variable. The regression output includes several important indicators, such as the correlation coefficient (R), coefficient of determination (R Square), adjusted R Square, and the standard error of the estimate. These statistical values collectively describe the strength, explanatory power, and accuracy of the regression model.

**Table 6.** Model Summary of Simple Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.62	0.384	0.362	0.66

The correlation coefficient ( $R = 0.62$ ) indicates a moderate positive relationship between self-efficacy and learning independence within the regression model. This value is consistent with the previous correlation findings and confirms that the relationship between the two variables remains stable when tested through regression analysis. The R Square value of 0.384 indicates that self-efficacy explains 38.4% of the variance in learning independence. This means that more than one-third of the changes in students' learning independence can be accounted for by differences in their self-efficacy levels. The remaining 61.6% of the variance is influenced by other factors not included in this model.

The Adjusted R Square value of 0.362 shows a slight adjustment after considering the sample size and model complexity. This adjusted value provides a more accurate estimate of the model's explanatory power in the population. The closeness between R Square and Adjusted R Square indicates that the model is relatively stable and not substantially inflated. The Standard Error of the Estimate (0.66) reflects the average deviation of observed values from the predicted regression line. A smaller standard error indicates better predictive accuracy of the model. Overall, these results demonstrate that self-efficacy is a meaningful predictor of learning independence, contributing substantially to students' ability to manage and regulate their own learning processes.

This section presents the regression coefficient analysis to determine the specific contribution of self-efficacy in predicting learning independence. While the previous model summary explained the overall explanatory power of the regression model, the coefficient table provides more detailed information regarding the direction, magnitude, and statistical significance of the predictive relationship. Through this analysis, the researcher can interpret how changes in self-efficacy directly affect changes in learning independence. The regression output includes the unstandardized coefficient (B), standardized coefficient (Beta), t-value, and significance level (Sig.). The unstandardized coefficient explains the amount of change in the dependent variable for each unit change in the independent variable. The standardized coefficient allows comparison of the strength of influence in standardized terms. The t-value and significance level determine whether the predictor has a statistically meaningful effect.

**Table 7.** Regression Coefficients

Variable	B	Beta	t	Sig.
(Constant)	1.12	-	2.31	0.028
Self-Efficacy	0.58	0.62	4.52	0.000

The constant value ( $B = 1.12$ ) represents the baseline level of learning independence when self-efficacy is held constant at zero. Although this is a theoretical condition, the constant is statistically significant ( $p = 0.028$ ), indicating that the regression model has a meaningful intercept. The unstandardized regression coefficient for self-efficacy ( $B = 0.58$ ) indicates that every one-unit increase in self-efficacy leads to an increase of 0.58 units in learning independence. This positive coefficient demonstrates a direct relationship between the two variables, showing that improvements in students' confidence and belief in their abilities contribute positively to their independent learning behavior.

The standardized coefficient ( $Beta = 0.62$ ) reflects a moderate to strong effect size in standardized terms. The  $t$ -value of 4.52 with a significance level of 0.000 indicates that self-efficacy significantly predicts learning independence. Since the  $p$ -value is lower than 0.05, the effect is statistically significant, confirming that the relationship is not due to random variation. Overall, the regression results confirm that self-efficacy has a significant and positive influence on students' learning independence. Students who possess stronger self-belief, persistence in facing academic challenges, and confidence in completing tasks independently are more likely to demonstrate autonomous learning behaviors. These findings strengthen the theoretical assumption that psychological factors, particularly self-efficacy, play a crucial role in fostering independent learning development.

### **3.2 Discussion**

The results of the study showed that the self-efficacy of SD Aisyiyah Candipuro students was in the category of sufficient to good, while the independence of students in learning was in the category of sufficient. These findings indicate that even though students have had relatively positive self-confidence in their academic abilities, their learning independence is still not optimally developed. This condition shows that students' self-confidence has not been fully actualized in independent learning behavior, so it is still necessary to strengthen the learning process. Findings on the influence of self-efficacy on learning independence show that self-efficacy has a significant role in shaping students' independent learning behavior. Students who have a higher level of self-efficacy tend to show better learning initiative, perseverance in completing assignments, and responsibility for the learning process they are undergoing.

This is in line with the theory of educational psychology which states that belief in one's abilities affects behavior choices, effort levels, and individual resilience in facing learning difficulties. In the context of elementary school, self-efficacy serves as a psychological foundation that encourages students to dare to try, make learning decisions, and complete assignments without excessive dependence on teachers. This statement can be understood by looking at self-efficacy as an internal belief of students in their ability to face the demands of learning. Students who have good self-efficacy tend to view learning tasks as something that can be overcome through proper effort and strategy. This belief encourages students to take the initiative to start learning, manage their time, choose the appropriate learning method, and persevere when facing difficulties. Thus, self-efficacy acts as a psychological driver that strengthens learning independence, because students feel responsible for their own learning processes and outcomes. In contrast, students with low self-efficacy generally doubt their ability to complete academic tasks. This doubt gives rise to a tendency to avoid tasks that are

considered challenging, quickly give up when encountering obstacles, and rely more on the help of teachers or friends.

This dependence shows that students are not fully able to manage learning activities independently, both in terms of planning, implementation, and learning evaluation. In the context of this study, the finding that student learning independence is not fully high even though some students have good enough self-efficacy shows that self-efficacy alone is not always enough to form optimal learning independence. At the elementary school level, the development of learning independence is also influenced by other factors, such as learning habits built in the classroom, teacher mentoring patterns, parental support, and the characteristics of student development who still need direction. Therefore, good self-efficacy needs to be supported by a learning environment that provides opportunities for students to practice making decisions, try independently, and learn from mistakes so that learning independence can develop more optimally.

The correlation analysis demonstrates a positive and moderately strong relationship between self-efficacy and learning independence ( $r = 0.620, p < 0.01$ ). This finding indicates that students with higher confidence in their academic abilities tend to exhibit stronger independent learning behaviors. The significance value of 0.000 confirms that the relationship is statistically significant and not due to chance. The descriptive statistics, including the mean scores and standard deviations, further support this interpretation by showing consistent response patterns among participants. These results suggest that belief in one's capability functions as an important psychological foundation for developing autonomy in learning. From an educational standpoint, the moderate strength of the correlation implies that self-efficacy plays a substantial role in shaping students' independent learning, although it is not the sole contributing factor. Students who possess strong self-efficacy are more likely to initiate learning tasks, persist when facing difficulties, and regulate their own academic progress. Such characteristics are central components of learning independence. Therefore, efforts to enhance students' self-efficacy—through supportive feedback, mastery experiences, and structured learning opportunities—may positively influence their ability to learn autonomously.

These findings are consistent with previous theoretical and empirical studies. (Imingan, 2025) emphasized that self-efficacy beliefs influence individuals' motivation, effort, and persistence, which are essential for independent functioning. (Priyambodo et al., 2025) further explained that self-efficacy is closely related to self-regulated learning processes, including goal setting, monitoring, and self-evaluation. In addition, (Larsen et al., 2025) found that students with higher self-efficacy demonstrate greater engagement and independence in academic tasks. The present study reinforces these perspectives by providing empirical evidence that self-efficacy is significantly associated with learning independence among elementary school students.

The Pearson correlation analysis reveals a moderate positive relationship between self-efficacy and learning independence ( $r = 0.62, p = 0.000$ ). This finding indicates that students who possess higher levels of self-confidence in their academic abilities tend to demonstrate stronger independent learning behaviors. The positive direction of the correlation confirms that both variables move in the same direction, meaning that improvements in self-efficacy are associated with increases in learning independence. The statistical significance value below 0.05 further strengthens the

conclusion that the relationship is not coincidental but reflects a meaningful association within the sample of 30 elementary school students. From an educational perspective, this result suggests that psychological factors, particularly belief in one's own capabilities, play an essential role in shaping students' autonomy in learning. Students with strong self-efficacy are more likely to take initiative, persist in completing tasks, and regulate their own learning activities without excessive dependence on teachers or peers. The moderate strength of the correlation also indicates that although self-efficacy is an important contributing factor, learning independence may additionally be influenced by other variables such as instructional strategies, parental support, or learning environment.

These findings are consistent with previous research. (Shaheen, 2025) emphasized that self-efficacy beliefs influence individuals' motivation, persistence, and self-regulation, which are core components of independent behavior. Similarly, (Kwon & Choi, 2025) found that students with high self-efficacy demonstrate stronger self-regulated learning skills, including goal setting, self-monitoring, and strategic action. The present study supports these theoretical and empirical perspectives by confirming that higher self-efficacy is significantly associated with greater learning independence among elementary school students.

The results of the simple linear regression analysis indicate that self-efficacy significantly predicts learning independence among elementary school students. The correlation coefficient ( $R = 0.62$ ) confirms a moderate positive relationship within the regression model, while the coefficient of determination ( $R^2 = 0.384$ ) shows that 38.4% of the variance in learning independence can be explained by self-efficacy. This proportion demonstrates a substantial contribution, suggesting that students' belief in their abilities plays a central role in shaping their capacity to manage learning tasks independently. The relatively small difference between R Square (0.384) and Adjusted R Square (0.362) further indicates that the model is stable and not overestimated despite the sample size. The regression coefficients strengthen this interpretation. The unstandardized coefficient ( $B = 0.58$ ) reveals that each one-unit increase in self-efficacy leads to a 0.58-unit increase in learning independence, while the standardized coefficient ( $\beta = 0.62$ ) indicates a moderately strong predictive effect. The significant t-value ( $t = 4.52, p = 0.000$ ) confirms that self-efficacy is a statistically meaningful predictor. These findings imply that students who possess confidence, persistence, and positive beliefs about their academic capabilities are more likely to take initiative, regulate their learning strategies, and complete tasks autonomously. Although other factors contribute to learning independence, self-efficacy emerges as a key psychological determinant.

These findings are consistent with previous research. (Vera, 2025) explained that self-efficacy beliefs influence individuals' choices, effort, persistence, and resilience, which directly affect independent and self-regulated behavior. Similarly, (Abimanyyu et al., 2025) reported that students with higher self-efficacy demonstrate stronger motivation and greater engagement in autonomous learning activities. The present study reinforces these theoretical perspectives by providing empirical evidence that self-efficacy significantly predicts learning independence at the elementary school level, highlighting its importance in fostering students' autonomous learning development.

#### 4. Conclusion

The results of this study indicate that the level of self-efficacy among students of SD Aisyiyah Candipuro falls into the sufficient to good category, while their learning independence is categorized as sufficient. The descriptive analysis shows that most students demonstrate positive confidence in completing academic tasks, although some still experience doubt when facing difficult assignments. The distribution of responses reveals that positive perceptions dominate both variables; however, learning independence appears slightly lower than self-efficacy. This finding suggests that although students generally believe in their abilities, these beliefs have not been fully actualized into optimal independent learning behaviors. The inferential statistical analysis confirms that self-efficacy has a significant and positive relationship with learning independence. The Pearson correlation results ( $r = 0.620$ ,  $p < 0.01$ ) indicate a moderate positive association, while the regression analysis demonstrates that self-efficacy significantly predicts learning independence, contributing 38.4% to its variance. These findings emphasize that self-efficacy plays an important role in shaping students' autonomous learning behavior. Nevertheless, because a considerable proportion of learning independence is influenced by other factors, strengthening students' self-efficacy should be supported by conducive learning environments, effective instructional strategies, and continuous guidance to promote more optimal independent learning development at the elementary school level.

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