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The Effect Self-Efficacy and Self-Confidence on Academic Anxiety, with Extrinsic Motivation as a Mediating Variabel

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ABSTRACT

This study examines the influence of self-efficacy and self-confidence on students' learning anxiety, with extrinsic motivation acting as a mediating variable among elementary school students. A quantitative approach with an explanatory survey design was used in this study. This study involved 360 elementary school students who were selected through probability sampling techniques. Data were collected using a Likert scale questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings show that self-efficacy and self-confidence significantly affect learning anxiety. In addition, extrinsic motivation also has a significant influence on learning anxiety. However, the role of extrinsic motivational mediation in the relationship between Self-Efficacy and learning anxiety, as well as between self-confidence and learning anxiety, is not supported by data. The results showed that internal psychological factors played a more prominent role in influencing students' learning anxiety compared to external motivational factors. Therefore, strengthening students' Self-Efficacy and confidence is essential to reduce learning anxiety and encourage a more effective learning experience.

Keywords: *Self-Efficacy, Self-Confidence, Learning Anxiety, Extrinsic Motivation, Elementary school students*

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INTRODUCTION

The phenomenon of learning anxiety in elementary school students is getting more attention in the study of educational psychology as academic demands increase and learning patterns change. Programme for International Student Assessment (PISA) data shows that around 56% of students in developing countries report high levels of anxiety related to schoolwork and academic evaluation (OECD, 2019). This condition is strengthened by the findings of the Ministry of Education and Culture of the Republic of Indonesia which indicates that elementary school students begin to show symptoms of academic stress since middle grade due to pressure on learning performance and environmental expectations This reality not only has an impact on the psychological well-being of students, but also has implications for a decrease in engagement and learning

outcomes. Learning anxiety that is not optimally managed has the potential to hinder students' cognitive and social development at a crucial stage of development. This condition encourages the need to explore the psychological factors that contribute to learning anxiety, especially in the context of basic education.

Learning anxiety in elementary school students is often influenced by internal factors such as self-efficacy and self-confidence that have not been developed optimally. Research shows that about 40% of students with low levels of self-efficacy tend to experience higher academic anxiety than students with high self-efficacy (Usher & Pajares, 2008). A similar condition was also found in the aspect of self-confidence, where low self-confidence was significantly correlated with increased fear of failure and inability to face academic tasks (Nair & Sutar, 2023). The impact of this condition can be seen in declining learning outcomes, low class participation, and lack of motivation to complete assignments. High learning anxiety also hinders the information processing process so that students have difficulty understanding learning materials effectively. Therefore, identifying psychological factors that play a role in learning anxiety is very important to improve the quality of learning.

Self-efficacy refers to an individual's belief in his or her ability to complete a particular task as stated in cognitive social theory (Bandura, 1997). Self-confidence is a positive evaluation of self-abilities that affect an individual's behavior and emotional response in academic situations Learning anxiety is defined as an emotional condition in the form of feelings of tension, worry, and fear that arise in the context of learning (Zeidner, 2014). Extrinsic motivation, as a mediating variable, refers to learning impulses that come from external factors such as appreciation, pressure, or social expectations (Ryan & Deci, 2020). Recent research shows that self-efficacy and self-confidence have a significant role in shaping students' learning (Schunk & DiBenedetto, 2020) motivation and emotional regulation (Honicke & Broadbent, 2016). This theoretical framework places self-efficacy and self-confidence as the main determinants, while extrinsic motivation serves as a mechanism that bridges the influence on learning anxiety.

Taken together, these strands of literature converge on a common conclusion: self-efficacy and self-confidence consistently predict emotional and motivational outcomes, yet prior studies have rarely examined them jointly within a single structural model, and rarely with extrinsic motivation specified as an explicit mediating mechanism. Bandura’s Social Cognitive Theory provides the theoretical basis for hypothesising a direct, negative association between self-efficacy and learning anxiety, since perceived competence is theorised to reduce threat appraisal in achievement settings (Bandura, 1997). Self-Determination Theory in turn provides the rationale for positioning extrinsic motivation as a mediating mechanism, given that externally regulated forms of motivation are theorised to shape the emotional consequences of students’ competence beliefs (Ryan & Deci, 2020). These two theoretical strands therefore jointly justify the hypothesised direct and indirect paths tested in this study.

The relationship between self-efficacy and learning anxiety has been empirically proven by negative relationship patterns, where increased self-efficacy contributes to a

decrease in anxiety (Putwain & Symes, 2018). Self-confidence also shows a similar relationship, as individuals with high levels of self-confidence tend to be better able to manage academic stress (Barokah et al., 2024). Extrinsic motivation acts as a mediator that can strengthen or weaken the relationship, depending on its form and intensity. A number of studies have found that extrinsic motivation can reduce anxiety when associated with positive rewards (Deci et al., 2017) but other studies have shown that external pressure actually increases learning anxiety (Zhu et al., 2026). This relationship pattern shows the existence of complex dynamics between variables that are not linear.

Recent empirical evidence continues to affirm self-efficacy as a significant negative predictor of academic and test anxiety, indicating that stronger belief in one's own competence reduces students' anxious responses in evaluative learning situations (Yun & Wang, 2024; Zheng et al., 2023). This protective function appears to operate partly through self-efficacy's broader role in shaping academic achievement, self-regulated learning, and motivation, particularly among elementary and middle school learners (Akhmedjanova, 2024; Hinduja et al., 2024). Closely related to self-efficacy, self-confidence has likewise been found to buffer young learners against academic worry, with recent Indonesian studies on elementary school children reporting that stronger self-confidence corresponds to lower anxiety and greater readiness to face classroom demands (Antika et al., 2023; Apriyani et al., 2025).

Previous research has extensively examined the relationship between self-efficacy, self-confidence, and learning anxiety, but most have been conducted at the secondary and tertiary education levels. Studies that specifically examine elementary school students are still relatively limited, especially in the context of education in Indonesia. In addition, research that integrates extrinsic motivation as a mediating variable is still rarely carried out comprehensively. Some studies tend to test the direct relationship between variables without considering the underlying psychological mechanisms. The inconsistency of the research results related to the role of extrinsic motivation also shows the need for further testing. This gap shows that there is no complete empirical model to explain the relationship between variables in the context of elementary school students. This gap constitutes the principal novelty of the present study: rather than treating extrinsic motivation merely as an antecedent or an outcome, this study specifies it explicitly as a mediating variable linking self-efficacy and self-confidence to learning anxiety among elementary school students, a population and a modelling approach that remain rarely combined in the existing literature.

This research has a high urgency in the development of educational psychology theory, especially in understanding the interaction between cognitive, affective, and motivational factors. Theoretically, this study contributes to enriching the conceptual model of learning anxiety by including relevant mediating variables. Practically, the results of this research can be the basis for teachers to design learning strategies that support the development of self-efficacy and student confidence. Educational institutions can use these findings to formulate policies oriented towards the psychological well-being of students. This research also provides implications for the development of motivation-

based interventions to reduce learning anxiety. Thus, this research has a significant contribution to improving the quality of basic education.

This study aims to analyze the influence of self-efficacy and self-confidence on learning anxiety with extrinsic motivation as a mediating variable in elementary school students. This study also aims to examine the role of extrinsic motivation mediation in the relationship between independent and dependent variables. The research questions asked included: whether self-efficacy has a significant effect on learning anxiety, whether self-confidence has an effect on learning anxiety, and whether extrinsic motivation mediates the relationship. The hypothesis proposed states that self-efficacy and self-confidence have a negative effect on learning anxiety, and extrinsic motivation plays a significant role as mediators.

The conceptual framework of this study places self-efficacy and self-confidence as independent variables that directly or indirectly affect learning anxiety through extrinsic motivation. The relationship between variables is assumed to be causal in the direction of the negative influence of self-efficacy and self-confidence on learning anxiety. Extrinsic motivation is positioned as an intervening variable that explains the psychological mechanisms in the relationship. This study uses a quantitative approach with an ex post facto design. The subjects of the study were elementary school students who were selected through certain sampling techniques. The research instrument is in the form of a standardized questionnaire that measures each variable. Data analysis was carried out using path analysis techniques or structural equation modeling to test the direct and indirect relationships between variables.

METHOD

This study is a quantitative approach with survey methods and explanatory design to analyze the causal relationships between variables that have been formulated in the research model. The quantitative approach was chosen because it is able to provide objective measurement of variables and allows hypothesis testing through inferential statistical analysis (Creswell, 2014) Meanwhile, explanatory design is used to explain the influence of moderation variables in strengthening or weakening the relationship between these variables (Sugiyono, 2019) The population in this study includes all elementary school students in Cirebon. The sampling technique is carried out using probability sampling, so that each member of the population has the same opportunity to be selected as a research sample. This technique was chosen to increase the level of representativeness as well as generalization of research results (Fraenkel et al., 2017) The number of respondents involved in this study was 360 students. Data collection was carried out using a questionnaire based on the Likert scale which was systematically compiled to measure respondents' perception of each research variable in a standardized manner (Likert, 1932) The data collection process is carried out in a structured manner through the distribution of questionnaires both online and offline within a certain period with the stage of paying attention to the participant's consent (informed consent).

The questionnaire items for each construct were adapted from previously validated instruments used in earlier self-efficacy, self-confidence, learning-anxiety, and extrinsic-motivation research, translated and back-translated into Bahasa Indonesia, and reviewed by experts for content validity. A pilot test was conducted with a small sample of elementary school students prior to the main data collection to confirm item clarity and preliminary reliability, after which minor wording adjustments were made. This study obtained ethical clearance from the university's research ethics committee, and written parental or guardian consent was obtained for every participating student prior to data collection; verbal assent was also sought from the students themselves, in line with ethical standards for research involving minors.

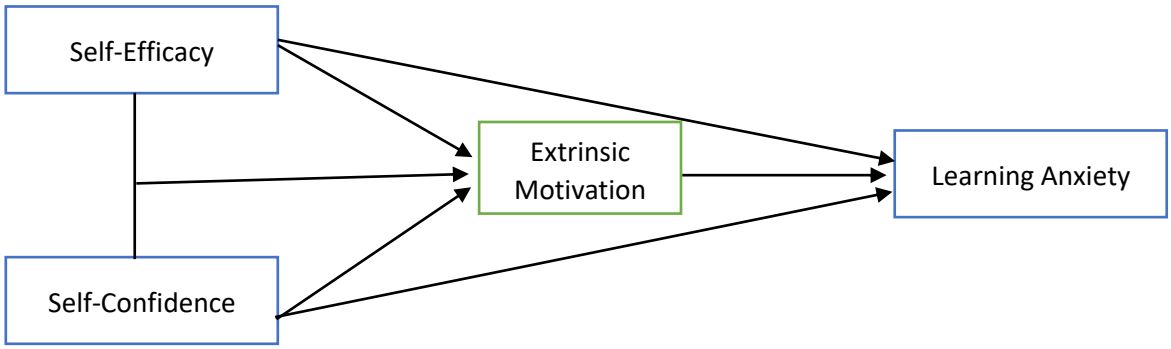

Figure 1 Desain Research

Data analysis was carried out using the Partial Least Square-Structural Equation Modeling (PLS-SEM) approach. PLS-SEM was selected over covariance-based SEM (CB-SEM) because the primary aim of this study is prediction and explanation of variance in learning anxiety through a mediating mechanism rather than confirmatory testing of a strictly specified theoretical model, and because PLS-SEM performs more robustly with the moderately sized, non-normally distributed survey data typical of elementary school respondents (Hair et al., 2021). Testing of the moderation effect was carried out through the formation of interaction terms which were analyzed using the bootstrapping technique to determine the significance and direction of the influence of moderation on the relationship between variables (Hair et al., 2021). Model evaluation is carried out through several main indicators, including the R-square value (R2) to measure the model's predictive ability, effect size (f2) to assess the magnitude of the influence of each variable, and predictive relevance (Q2) to determine the predictive relevance of the model (Hair et al., 2021). The moderation variable is analyzed by building the interaction variable between the independent variable and the moderation variable so that it can be known whether the moderation variable is able to significantly strengthen or weaken the relationship between independent and dependent.

FINDING AND DISCUSSION RESEARCH RESULT

This section presents the empirical findings of the study, beginning with an evaluation of the measurement model (outer model), followed by the structural model (inner model) and hypothesis testing. Table 1 summarizes the outer loading values, Composite Reliability (CR), and Average Variance Extracted (AVE) for each indicator across the four constructs examined in this study, namely Extrinsic Motivation, Self-Efficacy, Learning Anxiety, and Confidence, thereby providing the basis for assessing convergent validity and construct reliability prior to the subsequent structural analysis.

Evaluation of Measurement Models (Outer Model)

Table 1 Cronbach Reliability and Validity AVE

Aspect	Indicator	Thing	Outside Accommodation	CR	Ave	Result
Extrinsic Motivation	External Information	EM1	0,783	0,797	0,567	Valid
	Feedback	EM2	0,782			Valid
	Reinforcement	EM3	0,716			Valid
Self-Efficacy	Magnitude	X1.SE1	0,708			Valid
	Strength	X1.SE2	0,819	0,828	0,618	Valid
	Generality	X1.SE3	0,824			Valid
Learning Anxiety	Cognitive	Y.LA1	0,722			Valid
	Affective	Y.LA2	0,616	0,739	0,488	Tidak valid
	Physiology	Y.LA3	0,699			Valid
Confidence	Self-Confidence	X2.CF1	0,787			Valid
	Optimistic	X2.CF2	0,831	0,841	0,638	Valid
	Objective	X2.CF3	0,776			Valid

a. Convergent Validity Test

Convergent validity was evaluated through outer loading and Average Variance Extracted (AVE) values. In general, the indicator is declared to meet the convergent validity if it has a loading factor value of ≥ 0.70. However, values between 0.60–0.70 are still acceptable in exploratory studies as long as the construct has good reliability and the AVE value meets the criteria of at least 0.50. The results of the analysis show that most of the indicators have a loading value above 0.70 so that they can be declared valid. In the Extrinsic Motivation variable, the indicators EM1 (0.783), EM2 (0.782), and EM3 (0.716) met the validity criteria. The Self-Efficacy variable also shows a good loading value, which is X1. SE1 (0.708), X1. SE2 (0.819), and X1. SE3 (0.824). Furthermore, the Confidence variable has a valid indicator with loading values ranging from 0.776 to 0.831.

In the Learning Anxiety construct, the indicators Y.LA1 (0.722) and Y.LA3 (0.699) are still acceptable, while the Y.LA2 indicator only gets a loading value of 0.616. This value

is below the ideal limit of 0.70 so this indicator is categorized as invalid and needs to be considered for removal if the removal of the indicator can improve the quality of the model. Based on AVE values, the variables Extrinsic Motivation (0.567), Self-Efficacy (0.618), and Confidence (0.638) have met the AVE criteria ≥ 0.50. However, the Learning Anxiety construct only has an AVE value of 0.488, which shows that the construct's ability to explain the variance of the indicator is still less than optimal. This condition indicates that the quality of convergent validity on the Learning Anxiety variable is not fully adequate.

The Y.LA2 indicator was nonetheless retained rather than removed, for two reasons. First, the construct still achieved an acceptable composite reliability (CR = 0.739), suggesting that overall internal consistency was not seriously compromised by this single item. Second, Y.LA2 represents the affective dimension of learning anxiety, a facet that is conceptually distinct from the cognitive and physiological dimensions captured by the remaining indicators; removing it would narrow the construct's content coverage even as it improved its statistical indices. This trade-off between content validity and statistical optimisation is acknowledged as a limitation of the measurement model and is addressed further in the Discussion section

b. Construct Reliability Test

Construct reliability is measured using Composite Reliability (CR). A construct is declared reliable if it has a CR value of ≥ 0.70. The results of the analysis showed that all constructs met the reliability criteria, namely Extrinsic Motivation of 0.797, Self-Efficacy of 0.828, Learning Anxiety of 0.739, and Confidence of 0.841. Thus, all research variables have a good level of internal consistency in measuring the constructs studied.

Table 2 Discriminant Validity Forner Lekker

	Extrinsic Motivation	Self-Efficacy	Learning Anxiety	Confidence
Extrinsic Motivation	0,753			
Self-Efficacy	-0,125	0,786		
Learning Anxiety	0,100	0,571	0,699	0,495
Confidence	0,103	0,725		0,799

1) Discriminating Validity Test

The validity of the discriminant is evaluated using the Fornell-Larcker criterion. The square root of AVE must be greater than the correlation with other constructs. The results show that the square root value of AVE in each construct is Extrinsic Motivation (0.753), Self-Efficacy (0.786), and Learning Anxiety (0.699). However, in the Confidence construct, there is a correlation with Learning Anxiety of 0.799 which is higher than the square root value of AVE Learning Anxiety (0.699). This condition indicates the existence of a problem of discriminatory validity because the two constructs cannot be clearly distinguished. The implication is that there is a

possibility that the indicators in the two variables measure relatively similar concepts, so it is necessary to re-evaluate the research instrument.

A plausible substantive explanation for this overlap is that self-confidence and learning anxiety, as experienced by elementary school students, may not yet be as clearly differentiated as they are among older learners; young children may express low confidence and academic worry through similar behavioural and affective cues, which could be reflected in shared item content. This possibility does not eliminate the measurement concern, but it does suggest that future revisions of the instrument should pay particular attention to sharpening the conceptual and item-level distinction between these two constructs.

2) Structural Model Evaluation (*Inner Model)*
   a. Coefficient of Determination (R^2)

      Based on the available outputs, the R-Square value is not listed directly so the model's ability to explain endogenous variables cannot be thoroughly evaluated. Therefore, the interpretation is more focused on the influence between variables through path coefficients and effect sizes.

   b. Effect Size Test (F^2)

      Effect measures are used to determine the contribution of each exogenous variable to the endogenous variable. Based on Cohen's (1988) guidelines, an F^2 value of 0.02 indicates a small effect, 0.15 a moderate effect, and 0.35 a large effect. The findings show that Self-Efficacy is the variable that contributes the most to the change in Learning Anxiety compared to other variables.

Table 3 Model Fit

	Saturated Model	Estimated Model
SRMR	0,090	0,090
NFI	0,600	0,600

3) Model Feasibility Test (*Model Fit)*

The evaluation of the fit model was carried out using SRMR and NFI values. The SRMR value on the model is 0.090. According to Hair et al., the model is stated well when the SRMR < 0.10. Therefore, the research model is still acceptable even though it has not shown an excellent level of compatibility. The NFI value is 0.600. This value is still below the recommended limit of ≥ 0.90. These results indicate that the research model does not yet have an optimal level of suitability, so there is still room for model improvement.

Table 4 R-Square; F-Square List

	F-Square
Extrinsic Motivation ->Learning Anxiety	0,048
Self-Efficacy-> Extrinsic Motivation	0,005

	F-Square
Self-Efficacy -> Learning Anxiety	0,162
Confidence-> Extrinsic Motivation	0,000
Confidence-> Learning Anxiety	0,023

4) Structural Model Evaluation (*Inner Model)*

a. Coefficient of Determination (R^2)

Based on the available outputs, the R-Square value is not listed directly so the model's ability to explain endogenous variables cannot be thoroughly evaluated. Therefore, the interpretation is more focused on the influence between variables through path coefficients and effect sizes.

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Table 5 Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Extrinsic Motivation ->Learning Anxiety	0,176	0,178	0,053	3,326	0,000
Self-Efficacy-> Extrinsic Motivation	-0,106	-0,109	0,082	1,292	0,197
Self-Efficacy -> Learning Anxiety	0,465	0,467	0,061	7,630	5,68434E-14
Confidence-> Extrinsic Motivation	-0,026	-0,025	0,078	0,335	0,737
Confidence-> Learning Anxiety	0,176	0,178	0,060	2,938	0,003

5) Hypothesis Testing (*Path Coefficient)*

Hypothesis testing was carried out based on t-statistical values (>1.96) and p-values (<0.05).

H1: Extrinsic Motivation → Learning Anxiety

The path coefficient value was 0.176 with a t-statistic of 3.326 and a p-value of 0.000. These results show that Extrinsic Motivation has a positive and significant effect on Learning Anxiety. Thus, the hypothesis is accepted.

H2: Self-Efficacy → Extrinsic Motivation

The path coefficient value was -0.106 with a t-statistic of 1.292 and a p-value of 0.197. These results show that the effect of Self-Efficacy on Extrinsic Motivation is not significant. The hypothesis was rejected.

H3: Self-Efficacy → Learning Anxiety

The path coefficient value is 0.465 with a t-statistic of 7.630 and a p-value of 0.000. These findings show a positive and significant influence between Self-Efficacy and Learning Anxiety. Hypotheses accepted.

H4: Confidence → Extrinsic Motivation

The path coefficient value was -0.026 with a t-statistic of 0.335 and a p-value of 0.737. The effect of Confidence on Extrinsic Motivation was not significant so the hypothesis was rejected.

H5: Confidence → Learning Anxiety

The path coefficient value was 0.176 with a t-statistic of 2.938 and a p-value of 0.003. These results show a positive and significant influence. Hypotheses accepted.

Table 6 Specific Inderect Effect

	Original Sample (O)	Sample Mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Self-Efficacy->Extrinsic Motivation->Learning Anxiety	-0,019	-0,019	0,016	1,180	0,238
Confidence->Extrinsic Motivation->Learning An	-0,005	-0,004	0,014	0,331	0,741

6) Specific Inderect Effect Testing

The indirect effect of Self-Efficacy on Learning Anxiety through Extrinsic Motivation resulted in a p-value of 0.238 (>0.05). This shows that Extrinsic Motivation is not able to mediate the relationship. Furthermore, the indirect effect of Confidence on Learning Anxiety through Extrinsic Motivation obtained a p-value of 0.741 (>0.05). Thus, no significant mediation effect was found. Based on these results, the Extrinsic Motivation variable has not played a mediator role in the research model.

Table 7 PLSpredict LV Summary

	Q^2predict	RMSE	MAE
Extrinsic Motivation	0,004	1,005	0,797
Learning Anxiety	0,324	0,829	0,635

7) Evaluation of Model Predictive Capabilities (*PLSpredict LV Summary*)

The Q^2predict value is used to assess the model's predictive ability. The model is said to have predictive relevance if the Q^2predict value > 0.

The results show that:

a. Extrinsic Motivation has a Q^2predict value of 0,004.
b. Learning Anxiety has a Q^2predict value of 0,324.

Since all Q^2predict values are positive, the model has adequate predictive capabilities for the endogenous variables studied. Overall, the developed SEM-PLS model has met most of the reliability and validity criteria. However, there are still some important notes, namely the Y.LA2 indicator in the Learning Anxiety construct that has not met the optimal validity criteria, the AVE Learning Anxiety value that is still below the recommended limit, and the discriminant validity that has not been fully met. The results of structural testing showed that Self-Efficacy and Confidence had a significant effect on Learning Anxiety, while Self-Efficacy and Confidence had no significant effect on Extrinsic Motivation. In addition, Extrinsic Motivation has not been shown to mediate relationships between variables in the research model. Although the model has a fairly good predictive ability, improvements to the indicators and model structure are still recommended to improve the quality of the research results.

DISCUSSION

The results showed that self-efficacy had a significant effect on students' learning anxiety, with a path coefficient value of 0.465 and a p-value of 0.000. These findings indicate that students' confidence in their abilities has a strong relationship with the emotional state they experience during the learning process. The better the student's ability to assess and manage their potential, the easier it will be for them to deal with various academic demands. Therefore, the development of self-efficacy is an important aspect in efforts to

create a conducive learning environment for elementary school students. It should be noted that the path coefficient linking self-efficacy to learning anxiety was positive rather than negative, which at first appears to contradict theoretical expectations under Social Cognitive Theory, where higher self-efficacy is generally associated with lower anxiety. This pattern is most plausibly explained by the composition of the Learning Anxiety construct, which combines cognitive, affective, and physiological indicators; it is possible that students with higher self-efficacy reported heightened physiological or attentional arousal in relation to performance-relevant tasks (an activating rather than a debilitating form of anxiety) without this reflecting greater debilitating worry. Alternatively, the direction may reflect the specific coding and wording of the Learning Anxiety items in this instrument. Future studies are encouraged to verify item coding and to examine curvilinear or moderated relationships between self-efficacy and the distinct facets of anxiety before drawing firm theoretical conclusions from this coefficient.

This study also found that self-confidence has a significant influence on learning anxiety, with a p-value of 0.003. These results show that students' confidence levels are closely related to their ability to cope with academic challenges. Students who have confidence in themselves tend to be better prepared for assignments and learning evaluations than students who have low confidence. These findings show that psychological aspects have an important role in shaping students' learning readiness.

On the other hand, extrinsic motivation has been shown to have a significant effect on learning anxiety, but it is not able to function as a mediating variable in the relationship between self-efficacy and self-confidence and learning anxiety. This condition indicates that the impulse derived from external factors, such as environmental rewards, demands, or expectations, is not strong enough to bridge the influence of these two psychological variables on students' learning anxiety. The findings regarding the effect of self-efficacy on learning anxiety are in line with research conducted by (Putwain & Symes, 2018), which states that an individual's ability to believe in his or her competence is related to the management of academic stress. Students who have high self-efficacy are generally better able to face challenging tasks because they believe that they can complete the task well. These findings are in line with research Ahmad & Ratnasari (2020) revealing that individuals with low levels of confidence tend to experience higher anxiety when facing various academic demands, including presentation activities in class. On the other hand, students who have positive beliefs in their abilities are generally better able to manage learning pressure, dare to convey ideas, and show better readiness in facing various learning challenges. This condition shows that self-confidence is one of the psychological factors that plays an important role in helping students reduce feelings of anxiety during the learning process. However, the results of this study are different from some previous studies that found that extrinsic motivation can be an effective mediator in improving the quality of learning and reducing academic anxiety. In this study, extrinsic motivation did not show a significant mediating role. The difference in results may be due to the characteristics of respondents who are elementary school students, so that internal factors such as self-

confidence and self-confidence are more dominant than external factors in influencing students' psychological conditions.

This non-significant mediating role is broadly consistent with Self-Determination Theory (Ryan & Deci, 2020), which suggests that extrinsic regulation exerts weaker and more context-dependent effects on wellbeing-related outcomes than autonomous or intrinsic forms of motivation; among young children in particular, externally driven incentives may not yet be internalised strongly enough to meaningfully alter the emotional consequences of self-efficacy and self-confidence. This interpretation aligns with Deci et al. (2017), who note that extrinsic motivators can either buffer or exacerbate anxiety depending on whether they are experienced as controlling or informational, a distinction this study's instrument did not explicitly capture.

Extrinsic motivation, by contrast, occupies a more ambivalent position within this network of relationships; recent applications of Self-Determination Theory suggest that externally regulated motivation is less consistently protective than autonomous motivation, so that its capacity to mediate students' anxiety depends heavily on whether it is experienced as controlling or informational. Taken together, this recent body of literature supports a conceptual model in which self-efficacy and self-confidence function as primary determinants that directly reduce learning anxiety, while extrinsic motivation operates as a conditional mediating mechanism whose influence remains empirically inconsistent, especially within elementary school populations.

This study has several limitations that need to be considered in interpreting the research results. There are still indicators in the Learning Anxiety construct that have not met the optimal validity criteria, namely the Y.LA2 indicator with a loading factor value of 0.616. In addition, the Average Variance Extracted (AVE) value in the construct is still below the recommended limit, so the construct's ability to explain the variance of the indicator has not been maximized. The results of the discriminant validity test showed an overlap between the constructs of learning anxiety and confidence. This condition indicates that some indicators may still measure relatively close concepts so that the separation between constructs is not fully optimal. The research model has not shown an ideal level of conformity because the NFI value is still below the recommended limit. Therefore, the results of this study need to be interpreted carefully and still require the improvement of the model in the next study. In particular, the construct validity concerns affecting the Learning Anxiety measure and the model's below-threshold NFI value should be regarded as the most consequential limitations of this study, since both bear directly on the confidence that can be placed in the structural relationships reported above; readers should therefore treat the magnitude of the path coefficients involving Learning Anxiety as indicative rather than definitive pending replication with a refined instrument.

The results of this study show the importance of schools and teachers in developing learning programs that can increase student self-efficacy and confidence. Teachers can provide learning experiences that encourage gradual student success, provide positive feedback, and create a learning atmosphere that supports students' psychological development. Thus, the potential for learning anxiety can be minimized. From the

theoretical side, this study strengthens the study of the relationship between cognitive and affective factors in learning, especially in elementary school students. The results of the study also show that extrinsic motivation does not necessarily play a role as an effective mediator in all learning contexts. Therefore, further research is recommended to add other variables such as intrinsic motivation, social support, self-regulation, or family environment to obtain a more comprehensive model in explaining student learning anxiety. In addition, future research can involve respondents from different levels of education so that the results obtained have a wider generalization power. A longitudinal design is also recommended, as it would allow researchers to observe whether the relationships among self-efficacy, self-confidence, extrinsic motivation, and learning anxiety change as students progress through different developmental stages, rather than relying solely on the cross-sectional snapshot captured here.

CONCLUSION

This study aims to analyze the influence of self-efficacy and self-confidence on learning anxiety with extrinsic motivation as a mediating variable in elementary school students. The results of the analysis showed that self-efficacy and self-confidence had a significant influence on students' learning anxiety. In addition, extrinsic motivation has also been shown to have an effect on learning anxiety. However, extrinsic motivation is not able to play a mediating variable in the relationship between self-efficacy and self-confidence and learning anxiety. These findings indicate that the internal factors that students have contribute more to explaining the state of learning anxiety than the motivation that comes from external factors. Practically, the results of this research can be the basis for teachers and schools to design learning strategies that not only focus on academic achievement, but also pay attention to strengthening students' psychological aspects, especially self-efficacy and confidence. A supportive learning environment, providing constructive feedback, and opportunities for students to develop their potential can help reduce anxiety during the learning process.

For elementary school teachers, this implies deliberately structuring mastery experiences, such as scaffolded tasks with achievable incremental challenges, so that students accumulate direct evidence of their own competence, since mastery experience is the strongest known source of self-efficacy. For educational policymakers, the findings support embedding psychological well-being indicators, alongside academic achievement indicators, into school evaluation frameworks, and allocating resources for teacher training in confidence-building pedagogy. More concretely, schools could implement structured feedback routines that separate effort-based praise from outcome-based evaluation, peer-mentoring programmes that allow students to model successful coping strategies, and brief classroom-based social-emotional learning modules that explicitly target self-efficacy and self-confidence as a means of strengthening students' psychological resilience against academic anxiety.

For further research, it is recommended to involve other variables that have the potential to affect learning anxiety, such as intrinsic motivation, social support, self-

regulation, and family environment. In addition, research can be conducted at different levels of education and with a wider sample coverage so that a more comprehensive understanding of the factors that affect students' learning anxiety is obtained.

REFERENCES

Akhmedjanova, D. R. (2024). Domain-specific self-efficacy scales for elementary and middle school students. *Psychology in Russia: State of the art*, *17*(1), 45-66. https://doi.org/10.11621/pir.2024.0103

Ahmad, S. N., & Ratnasari, A. (2020). The Relationship Between Self-Confidence and Academic Anxiety. *International Journal of Nursing and Midwifery Science (IJNMS)*, *4*, 163–169.

Antika, L. A., Oktavia, M. O., & Rachamawati, P. A. (2023). ANALISIS KEPERCAYAAN DIRI SISWA KELAS III SEKOLAH DASAR. *Jurnal DIDIKA: Wahana Ilmiah Pendidikan Dasar*, *9*(2), 355–362. https://doi.org/10.29408/didika.v9i2.24276

Apriyani, E. T., Muqodas, I., & Nikawanti, G. (2025). Analysis of children's self-confidence in transition activities from pre-school to kindergarten. *Indonesian Journal of Educational Development (IJED)*, *6*(2), 422-435. https://doi.org/10.59672/ijed.v6i2.5130

Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. Freeman.

Barokah, P. R., Lubis, M. S., & S., T. J. (2024). Pengaruh Kepercayaan Diri dan Kecemasan terhadap Kemampuan Pemecahan Masalah Matematis. *RELEVAN: Jurnal Pendidikan Matematika*, *4*. https://ejournal.yana.or.id/index.php/relevan

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications.

Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination Theory in Work Organizations: The State of a Science. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*(1), 19–43. https://doi.org/10.1146/annurev-orgpsych-032516-113108

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2017). *How to Design and Evaluate Research in Education* (10th ed.). McGraw-Hill Education.

Hinduja, P., Mohammad, R. F., & Siddiqui, S. (2024). *Factors influencing students' academic self-efficacy in related domains.* SAGE Open. https://doi.org/10.1177/21582440241289738

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

Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology*, *22*(140), 1–55.

Nair, P. N., & Sutar, D. (2023). Fear of failure, academic self-efficacy and academic performance among college students. *The International Journal of Indian Psychology, 11(3)*, 375-384. https://doi.org/10.57180/eabg4879

OECD. (2019). *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*.

OECD Publishing.
Putwain, D. W., & Symes, W. (2018). Does Increased Effort Compensate for Performance-Debilitating Test Anxiety? *School Psychology Quarterly*, *33*(3), 482–491. https://doi.org/10.1037/spq0000236
Ryan, R. M., & Deci, E. L. (2020). Intrinsic and Extrinsic Motivation from a Self-Determination Theory Perspective. *Contemporary Educational Psychology*, *61*. https://doi.org/10.1016/j.cedpsych.2020.101860
Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and Social Cognitive Theory. *Contemporary Educational Psychology*, *60*. https://doi.org/10.1016/j.cedpsych.2019.101832
Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (2nd ed.). Alfabeta.
Usher, E. L., & Pajares, F. (2008). Sources of Self-Efficacy in School: Critical Review of the Literature and Future Directions. *Review of Educational Research*, *78*(4), 751–796. https://doi.org/10.3102/0034654308321456
Yun, H., & Wang, J. (2024). Relationship between Academic Self-Efficacy and Test Anxiety in Middle School Students. *Journal of Education, Humanities and Social Sciences, 26*, 1018–1023. https://doi.org/10.54097/z0jn0085
Zheng, G., Zhang, Q., & Ran, G. (2023). The association between academic stress and test anxiety in college students: The mediating role of regulatory emotional self-efficacy and the moderating role of parental expectations. *Frontiers in Psychology, 14.* 1008679 https://doi.org/10.3389/fpsyg.2023.1008679
Zeidner, M. (2014). *Anxiety in Education*. Springer.
Zhu, J., Li, C., Li, X., & Liu, Z. (2026). The Relationship Between Enjoyment, Anxiety, and Boredom and Intrinsic Motivation for Spanish Language Skills in After-Class Learning: A Self-Determination Theory Perspective. *Language Teaching Research*.