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Research Article

The Influence of Learning Motivation and Learning Interest on Student Learning Achievement

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Abstract
In the New Student Admission System for the 2025/2026 academic year, age is no longer a priority for entering public high schools; instead, grades are the primary focus. Every student, regardless of age, has an equal opportunity. With this change, students must maintain good academic grades to compete. State High School 13 Jakarta is an institution desired by many parents. The domicile pathway for entry to State High School 13 Jakarta offers the most opportunities, with 124 students out of a total capacity of 365 students. The domicile pathway to enter State High School requires high grades, so students are required to have exemplary academic achievements. The purpose of this study was to identify the impact of learning interest and learning motivation on learning outcomes. This study involved 102 randomly selected respondents from parents at State High School 13 Jakarta, utilizing quantitative research methods. Data collection was carried out by filling out a questionnaire using a Likert scale. The data analysis method used was IBM SPSS 27 and the Structural Equation Modeling SmartPLS 3.0 approach. The results of this study indicate that learning interest and learning motivation have a positive and significant influence on learning achievement.

Keywords: SMAN 13 Jakarta, Leading School, Interest in Learning, Motivation to Learn, Learning Achievement

JEL Classification: I21, I23, A22

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1. Introduction

Article 43 paragraph (3) of the Minister of Education and Culture Regulation indicates that if prospective students apply through the Domicile Route at SMA and exceed the Regional Government's quota, the acceptance order of students will be based on the following criteria: academic proficiency, proximity to the nearest residence to the Educational Unit, and age (Permendikdasmen RI, 2025). From the results of the new student admission system for the 2024/2025 academic year (ppdb.jakarta.go.id, 2024), student age is taken into account in the online registration system, while in the New Student Admission System for the 2025/2026 academic year (Dinas Pendidikan DKI Jakarta, 2025), age is no longer a priority for admission to public high schools; instead, students' academic abilities become the primary focus.

This change requires students and parents to think strategically about implementing students' academic abilities so they can be accepted into their desired high schools. Based on these regulatory changes, this study aims to refer to the latest regulations of the Indonesian Ministry of Education and Culture, which aims to determine the factors that influence students' academic abilities, namely in learning achievement.

Education is a crucial element in developing the quality of human resources. Student academic performance is influenced by internal factors such as intelligence and ability, as well as psychological aspects, including learning interest and motivation. Students with high learning motivation are generally more diligent, put in effort, and concentrate on achieving academic goals. Education is a crucial element in creating high-quality and superior human resources (Sugiharso et al., 2019). Kids are susceptible to online gaming addiction, which can harm their mental and emotional well-being, and this may also influence students (Nugroho & Muslikh, 2023). Consequently, parents need to actively encourage their children by inspiring them through rewarding activities. Parents, as the people closest to students, have important insights into their children's learning development.

Parental support, attention, and assessment can reflect how high a student's motivation and interest in learning contribute to their academic achievement. In accordance with the concept of self-efficacy proposed, this is a crucial element in determining decisions related to goal setting and the effort and perseverance expended to achieve goals (Bandura, 1997). Based on the data obtained (Dinas Pendidikan DKI Jakarta, 2025), SMAN 13 Jakarta is a leading school with the highest achievement scores in the 2025 academic year. This is an interesting research topic. The author is a parent and one of the students who successfully entered SMAN 13 Jakarta in the 2025 academic year. In a child's education, parents must be involved in their child's abilities and development to achieve academic success. Choosing a school for their children is not a simple matter; parents certainly want to enroll their children in the best or most popular school. In choosing the best school, parents must consider their child's abilities and understand the reputation of the school they wish to attend. Choosing the right school requires considering academic ability, one of which is student achievement. Schools need to be tailored to the child's needs so they can develop, not just to show prestigious status (Slameto, 2021). State Senior High School 13 Jakarta (SMAN 13 Jakarta), located at Jl Seroja No. 1, Koja District, North Jakarta, is one of the schools that has A/superior accreditation (Kemendikdasmen, 2025). Entry to SMAN 13 Jakarta is undoubtedly not easy, plus there are regulations and pathways that have been established by the local government, namely through the academic achievement pathway, non-academic achievement pathway, the pathway for people with disabilities, the KJP Plus / Mitra trans Jakarta / KJP / PIP pathway (registered in the DTKS), domicile pathway, medical pathway, and the second stage pathway (Dinas Pendidikan DKI Jakarta, 2025).

Table 1. Student admission capacity of SMAN 13 Jakarta

Registration Path	Capacity
Academic achievement pathway	88 students
Non-academic achievement pathway	25 students
Disability pathway	20 students
KJP Plus/Mitra Trans Jakarta/KJP/PIP pathway (registered in the DTKS)	93 students
Domicile pathway	124 students
Transfer pathway	11 students
Second-stage pathway	4 students
Total Student Capacity	365 students

Source : (Dinas Pendidikan DKI Jakarta, 2025)

SMAN 13 Jakarta has a capacity of 365 students, and students must compete for the available seats. Competition is fierce, given that SMAN 13 Jakarta is a popular school and excels compared to other high schools in North Jakarta. The higher the score, the greater the chance of acceptance.

Table 2. Highest Scores from the High School Admission Selection in North Jakarta

School Name	Academic Achievement (Total Academic GPA)	Non-Academic (Total Non-Academic GPA)	Domicile (Academic Ability)
SMAN 13	84,59	67,32	95,78
SMAN 15	58,85	64,31	92,35
SMAN 18	61,27	63,28	93,78
SMAN 40	69,79	61,36	92,15
SMAN 41	73,61	59,71	90,98
SMAN 45	62,07	60,05	93,45
SMAN 52	77,13	67,06	94,77
SMAN 72	72,38	65,57	93,05
SMAN 73	59,89	64,85	92,78
SMAN 75	60,96	62,72	93,52
SMAN 80	78,06	64,12	94,9
SMAN 83	70,59	55,11	90,17
SMAN 92	61,27	64,53	92,95
SMAN 110	60,91	61,48	92,15
SMAN 111	65,01	59,83	93,2
SMAN 114	60,12	68,3	91,7
SMAN 115	59,5	56,41	92,28

Source : (Dinas Pendidikan DKI Jakarta, 2025)

Based on Table 1 above, it can be concluded that the domicile pathway has the highest income value compared to other admission pathways, namely 95.78. This domicile pathway appears to reflect students' pure academic ability without being influenced by additional values from other factors. This means that the domicile pathway (academic ability) is the result of students' earnest learning efforts. Both internal and external factors influence children's academic performance. Motivation and interest in learning are internal factors that can encourage students to achieve maximum achievement. Parents' views and roles are also crucial from an external perspective in helping students achieve high learning outcomes.

2. Literature Review and Hypothesis

Academic achievement

Academic achievement is the result obtained by students after undergoing the learning process. These learning outcomes are usually recorded in numerical form or as specific milestones. A student's academic achievement reflects their level of knowledge after undergoing the learning process. Academic achievement is an indicator of student success after undergoing various types of lessons taught in school (Slameto, 2021). According to Sudjana (Sudjana, 2017), academic achievement is the result a student can achieve, in the form of a number or letter, that indicates success.

Learning motivation

According to Sardiman (2018), learning motivation is a stimulus from internal and external factors that can motivate a student to learn. Students with high learning motivation will certainly achieve good results, both in grades and achievement. According to Uno (2012), motivation is an internal force that drives an individual to act. According to Winardi (Winardi, 2011), each person's actions are generally driven by the desire to achieve specific goals. Learning motivation can be defined as the extent to which students devote attention and effort to various activities, whether expected or not by the teacher (Brophy, 2010). A statement by Robert C. Gardner (1972) highlights the impact of integrative and instrumental motivation in increasing student engagement and learning success.

Learning interest

Learning interest can be defined as an emotional tendency that makes students feel happy in learning activities (Slameto, 2019). Learning interest denotes a student's inclination to focus on, feel involved in, and exhibit excitement for educational activities. It signifies the degree of

curiosity, pleasure, and eagerness to engage in the educational experience. In this research, indicators such as the following are used to assess learning interest: Focus and engagement during classes, readiness to engage actively in classroom tasks, regularity in finishing educational assignments and favorable emotions (pleasure or contentment) regarding the topic at hand. Interest functions to generate attention, create focus, and avoid external distractions(Gie, 2004).

Research Hypothesis

The influence of learning motivation on learning achievement

In the context of learning, students who are driven by achievement goals engage in the learning process to gain satisfaction from the new knowledge and skills they learn. In research (Jiao et al., 2022), there are two types of motivation: intrinsic motivation, which has a significant positive impact on English learning achievement, and interest motivation, which has a negative impact on English learning achievement. Low learning motivation is often considered a factor causing poor student quality. Motivation to learn significantly impacts student learning outcomes (Giawa et al., 2020). There are two types of learning motivation: intrinsic motivation and extrinsic motivation, both of which influence student academic achievement in biology education (Tokan & Imakulata, 2019). Learning motivation shows ARCS (Relevance) as the most important factor in learning achievement (Su, 2017). The experimental group (learning satisfaction, self-efficacy, and learning motivation) had a more positive influence on learning achievement than the control group (Zhao et al., 2021). There is a significant influence of student learning motivation on learning outcomes (Warti, 2016).

H1: Learning motivation has a positive and significant influence on learning achievement.

The influence of learning interest on learning achievement

In his study, it was explained that interest in learning has a positive impact on academic achievement/learning achievement (Sirait, 2016). Student learning interest influences learning achievement (Handayani, 2016). Learning interest has a significant effect on learning achievement (Munthe & Pasaribu, 2023). There is an influence of learning interest on learning achievement (Astuti, 2015). This study underscores the positive impact of learning interest on academic achievement (Primastami & Insani, 2024).

H2: Learning interest has a positive and significant influence on learning achievement.

Research Concept Framework

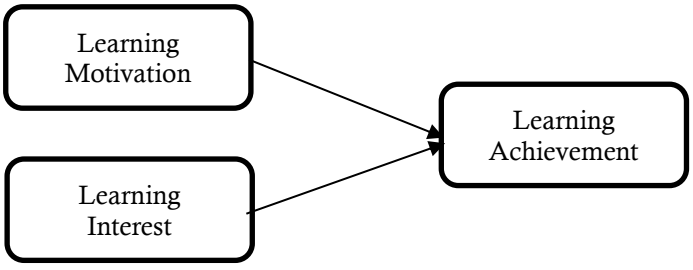

Figure 1. Research Concept Framework

From the figure above, we can see that in this research, we have:

Problem Formulation

1. How does learning motivation influence learning achievement?
2. How does learning interest influence learning achievement?

Research Objectives

1. To analyze the influence of learning motivation on learning achievement.
2. To analyze the influence of learning interest on learning achievement.

Research Hypothesis
H1: Learning motivation has a positive and significant influence on learning achievement.
H2: Learning interest has a positive and significant influence on learning achievement.

3. Data and Method

This research is a quantitative study that collects data through the use of questionnaires, as stated (Sugiyono, 2017). A questionnaire is a data collection technique or sample conducted by researchers by delivering a series of written statements or questions to be answered by respondents. The sample in this study was taken from parents living around SMAN 13 Jakarta, namely in the villages of North Rawa Badak, Kebon Bawang, North Tugu, Sungai Bambu, and Warakas in North Jakarta. This sampling involved 102 respondents who were randomly selected through direct questionnaire completion and using Google Forms. The questionnaire completion activity took place from August 8-30, 2025. This study used data analysis methods with the assistance of IBM SPSS Statistics Version 27 software to test validity and reliability, and Smart PLS 3.0 to process the data.

Each question or statement in the questionnaire was expected to elicit responses in the form of nominal, ordinal, ratio, or interval data. The model used for this measurement is the Likert scale. The Likert scale is a tool that can be used to measure opinions, attitudes, and perceptions of individuals or groups of people (Sugiyono, 2017). The Likert scale is also often used to assess a person's attitude towards an object in research (Kriyantono, 2014). In this study, the method used is the Likert scale 1-5. In the context of data analysis research, the responses from respondents are given a value or score, namely: Strongly disagree has a weighted value (1), disagree has a weighted value (2), Neutral has a weighted value (3), Agree has a weighted value (4) and strongly agree has a weighted value (5). According to Ferdinand (2011), the sample size in statistical methods provides a basis for estimating sampling errors. The method applied is the SEM (Structural Equation Modeling) model regarding the number of samples recommended for SEM, with estimation using the MLE (Maximum Likelihood Estimation) technique. An adequate sample size, according to the MLE technique, is between 100 and 200 (Hair et al., 2018). The sample in this study used a simple random sampling method, or randomly selected. This simple random sampling method provides each element of the population with an identical, unlimited chance of being selected once without replacement (Mas'ud, 2014).

Data analysis of each respondent's questionnaire responses was processed using the SEM (Structural Equation Modeling) method using SmartPLS 3 software. SEM-PLS enables researchers to assess the validity and reliability of indicators along with the connections among latent variables at the same time within one structural model, incorporating variables like mediating or intervening ones. PLS offers greater flexibility when dealing with non-normal data, in contrast to covariance-based SEM (AMOS or LISREL). This study not only explores relationships but also investigates how motivation and interest affect achievement, making PLS an ideal choice because of its predictive capabilities. PLS can yield reliable outcomes even with a small number of participants (100–200), whereas covariance-based SEM generally needs a larger sample size (>200). Using SEM-PLS, researchers can simultaneously assess the measurement model (outer model) and the structural model (inner model), leading to more comprehensive and reliable research findings. According to Ghozali & Latan (2015), Partial Least Squares (PLS) is a research method that supports SEM models and enables researchers to conduct predictive research. Researchers widely use the SEM-PLS method and offer an appeal because it allows them to estimate complex models using various constructs, indicator variables, and structural paths without imposing distributional assumptions on the data (Hair et al., 2019). According to Haryono (2016), Structural Equation Modeling is a combination of factor analysis and path analysis in one comprehensive model.

4. Results

Instrument Testing

Based on the responses of all respondents, validity and reliability testing were first conducted using IBM SPSS 27. If the correlation value for each instrument is >0.3, it can be concluded that the

construct or variable is valid. If the Cronbach's alpha value for each instrument is >0.7, the construct or variable can be considered reliable.

Table 3. Results of Validity and Reliability of Learning Motivation

Indicator	Pearson Correlation	Cronbach's Alpha
MOB1	0.720	0.867
MOB2	0.716	0.865
MOB3	0.700	0.868
MOB4	0.800	0.849
MOB5	0.729	0.865
MOB6	0.713	0.867
MOB7	0.708	0.875

Source: Processed from primary research data (2025)

The results of data processing for testing the validity of the learning motivation variable (MOB) were obtained: MOB1 got a correlation value of 0.720 and Cronbach's alpha of 0.867, MOB2 got a correlation value of 0.716 and Cronbach's alpha of 0.865, MOB3 got a correlation value of 0.700 and Cronbach's alpha of 0.868, MOB4 got a correlation value of 0.800. Cronbach's alpha of 0.849, MOB5 got a correlation value of 0.729. Cronbach's alpha of 0.865, MOB6 got a correlation value of 0.713. Cronbach's alpha of 0.867, and MOB7 got a correlation value of 0.708 and Cronbach's alpha of 0.875. So, all indicators of the learning motivation variable got a correlation value> 0.3 and Cronbach's alpha> 0.7, then it can be said that all indicators are declared valid and reliable.

Table 4. Results of Validity and Reliability of Learning Interest

Indicator	Pearson Correlation	Cronbach's Alpha
MIB1	0.842	0.864
MIB2	0.779	0.873
MIB3	0.829	0.868
MIB4	0.727	0.883
MIB5	0.799	0.865
MIB6	0.743	0.882

Source: Processed from primary research data (2025)

The results of the data processing for the validity testing of the learning interest variable (MIB) were obtained: MIB1 obtained a correlation value of 0.842 and a Cronbach's alpha of 0.864, MIB2 obtained a correlation value of 0.779 and a Cronbach's alpha of 0.873, MIB3 obtained a correlation value of 0.873 and a Cronbach's alpha of 0.868, MIB4 obtained a correlation value of 0.727 and a Cronbach's alpha of 0.883, MIB5 obtained a correlation value of 0.799 and a Cronbach's alpha of 0.865 and MIB6 obtained a correlation value of 0.743 and a Cronbach's alpha of 0.865. Therefore, all indicators of the learning interest variable obtained a correlation value > 0.3 and a Cronbach's alpha > 0.7, so it can be said that all indicators are valid and reliable.

Table 5 Results of Validity and Reliability of Learning Achievement

Indicator	Pearson Correlation	Cronbach's Alpha
PB1	0.832	0.817
PB2	0.816	0.821
PB3	0.757	0.838
PB4	0.757	0.835
PB5	0.692	0.852

Source: Processed from primary research data (2025)

The results of the data processing of the validity test of the Learning Achievement (PB) variable were obtained: PB1 got a correlation value of 0.832 and Cronbach's alpha of 0.817, PB2 got a correlation value of 0.816 and Cronbach's alpha of 0.821, PB3 got a correlation value of 0.757 and Cronbach's alpha of 0.838, PB4 got a correlation value of 0.757 and Cronbach's alpha of 0.835, and PB5 got a correlation value of 0.692 closer to 0.7 and Cronbach's alpha of 0.852. So all indicators of the learning achievement variable got a correlation value > 0.3 and Cronbach's alpha > 0.7, so it can be said that all indicators are declared valid and reliable.

Research Data Analysis

Outer Model Test Results

The outer model was determined by identifying the relationship between variables using AVE (Average Variance Extracted) and also by testing hypotheses through a structural model (inner model) using statistical data analysis software, namely SmartPLS 3. Convergent validity applied in processing external loadings can be seen from the direction of the arrow of a construct that indicates the correlation value between the latent variable and the construct. The outer model is determined by identifying the relationship between variables using AVE (Average Variance Extracted) and also hypothesis testing through a structural model (Inner model) using statistical data analysis software, namely SmartPLS 3. Convergent validity applied in processing external loads can be seen from the direction of the arrow of a construct that shows the correlation value and the latent variable.

The outer model is determined by identifying the relationship between variables using AVE (Average Variance Extracted) and also hypothesis testing through a structural model (Inner model) using statistical data analysis software, namely SmartPLS 3. Convergent validity applied in processing external loads can be seen from the direction of the arrow of a construct that shows the correlation value and the latent variable.

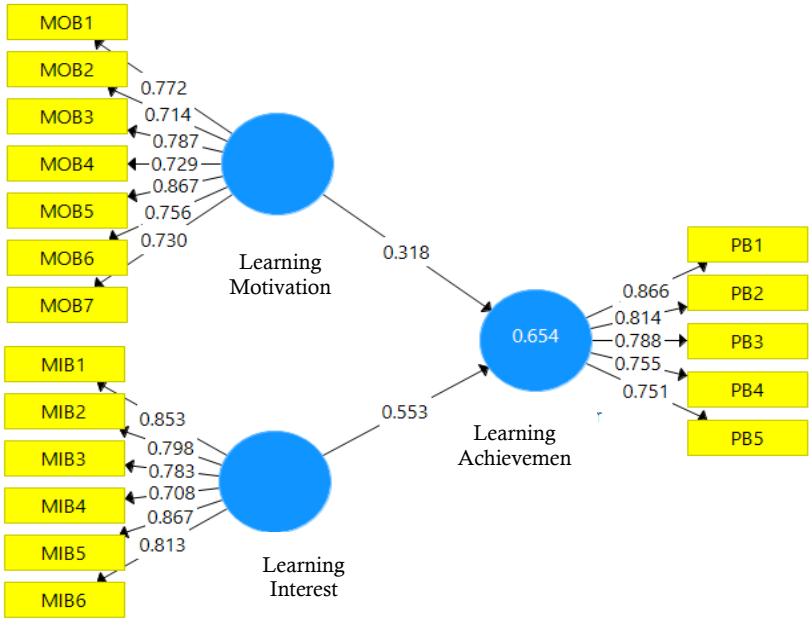

Figure 5 Data processed by SmartPLS (Full Structural Model Outer Loading)

Convergent Validity

Testing for convergent validity involves analyzing Outer loading data represented by arrows from the construct, indicating the correlation value between the indicator and the latent variable.

Table 6 Convergent Validity Test Results

Variable	Indicator	Loading Factor	Description
Learning Motivation (MOB)	MOB1	0,772	Valid
	MOB2	0,714	Valid
	MOB3	0,787	Valid
	MOB4	0,729	Valid
	MOB5	0,867	Valid
	MOB6	0,756	Valid
	MOB7	0,730	Valid
Learning Interest (MIB)	MIB1	0,853	Valid
	MIB2	0,798	Valid
	MIB3	0,783	Valid
	MIB4	0,708	Valid
	MIB5	0,867	Valid
	MIB6	0,813	Valid
Learning Achievement (PB)	PB1	0,866	Valid
	PB2	0,814	Valid
	PB3	0,788	Valid
	PB4	0,755	Valid
	PB5	0,751	Valid

Source: Processed from primary research data (2025)

Convergent validity is a type of measurement that assesses the validity of each indicator that functions to measure a variable based on the outer loading of each indicator variable. An indicator is considered valid if its outer loading value is above 0.70. Table 6 shows that the total outer loading value for each variable is >0.70. Thus, each indicator that serves as a measure for the three research variables can be considered valid.

Average Variance Extracted (AVE)

Convergent validity testing can be conducted through AVE testing, considered valid and feasible if the AVE exceeds 0.5 for each indicator relative to the measurement of the latent variable; the magnitude of the AVE value corresponds to the convergent validity assessment with the outer loading of each indicator.

Table 7: Average Variance Extracted (AVE) Test

Variable	AVE
Learning Motivation (MOB)	0,648
Learning Interest (MIB)	0,588
Learning Achievement (PB)	0,634

Source: Processed from primary research data (2025)

AVE values can also be used to evaluate convergent validity. The minimum value that must be achieved to be considered convergent valid is 0.50. This means that the lowest AVE value must be ≥ 0.50 to be considered valid. Table 7 shows the AVE value for each variable ≥ 0.50, thus it can be considered convergently valid.

Discriminant Validity

Discriminant validity seeks to measure how much latent constructs are unrelated to other latent constructs by evaluating the Fornell-Larcker criterion. Fornell-Larcker assesses the connection between variables when they are analyzed individually and when they are examined with other variables. An invalid construct occurs when the connection between one variable and another surpasses the value of the other variable.

Table 8: Discriminant Validity Test

Variable	Learning Motivation	Learning Interest	Learning Achievement
Learning Motivation	0,805		
Learning Interest	0,703	0,767	
Learning Achievement	0,776	0,707	0,796

Source: Processed from primary research data (2025)

As shown in Table 8, the relationship between variables shows a higher value compared to the relationship between variables with other variables, namely Learning Motivation (0.805 > 0.703 and 0.776), Learning Interest (0.767 > 0.707), and Learning Achievement (0.796 > 0.776 and 0.707).

Composite Reliability

Composite reliability aims to assess the composite dependency of each variable related to the composite reliability value. Cronbach's alpha is used to determine which variables have a good level of reliability across all their components.

Table 9 Composite Reliability Testing

Variable	Cronbach's Alpha	Composite Reliability	Description
Learning Motivation	0,983	0,917	Reliabel
Learning Interest	0,883	0,893	Reliabel
Learning Achievement	0,855	0,859	Reliabel

Source: Processed from primary research data (2025)

A variable is considered reliable if the composite reliability value is greater than 0.7 and the Cronbach's alpha value is also greater than 0.7. The composite reliability and Cronbach's alpha values in Table 6 are greater than 0.7, indicating that the research data used are accurate, valid, and reliable.

Inner Model Test Results

R^2 (Coefficient of Determination) Test

The learning achievement variable is an endogenous variable influenced by exogenous variables, namely learning motivation and learning interest. The learning motivation and learning interest variables were tested against the learning achievement variable using the coefficient of determination test, thus revealing an influence of these variables.

Table 10: Coefficient of Determination (R^2) Test

Variable	Coefficient Determination
Learning Achievement	0.654

Source: Processed from primary research data (2025)

In the R^2 (Coefficient of Determination) test, the learning achievement variable, which is an endogenous variable, obtained an R^2 value of 0.654 in this study. An R^2 value <0.5 indicates that the exogenous variable has a minimal impact on the endogenous variable. However, an R^2 value >0.5 indicates that the exogenous variable has a significant influence on the endogenous variable. This figure indicates that learning motivation and interest significantly influence learning achievement in 65.4% of individuals. Other aspects contributed 34.6%. Other factors were not included in this study.

F² (Effect Size) Test

The F² test is used in this study to determine the influence of variables, using the effect size calculation. The influence can be seen from the contribution of a variable. A value of ≤0.02 indicates a small effect, ≤0.15 indicates a moderate effect, and ≥0.35 indicates a strong relationship between endogenous and exogenous variables.

Table 11 Effect Size (F²) Test

Variable	Learning Achievement
Learning Motivation	0.446
Learning Interest	0.148

Source: Processed from primary research data (2025)

Based on data processing using SmartPLS 3, as shown in Table 11 above, the direct impact of each expected variable can be identified, namely:

1. The F² value of the learning motivation variable is 0.446. This value is considered to have a strong positive influence on learning motivation and learning achievement because it has a value of ≥0.35.
2. Learning interest obtains an F² value of 0.148. The influence of learning interest on learning achievement is positive and can be considered moderate because it has a value approaching ≥0.15.

Q² Test (Predictive Relevance)

Predictive Relevance (Q²) is a statistical measure that can assess the relevance of a predictive model. Q² is a model evaluation in SEMPLS, and the Q² value should be greater than 0 (Q² > 0) to be considered good. The higher the Q² value, the stronger the predictive relevance.

Table 12 Predictive Relevance (Q²) Test

Variabel	Value Prediction	Error Prediction	Predictive Relevance
Learning Motivation	714.000	714.000	
Learning Interest	612.000	612.000	
Learning Achievement	510.000	510.000	0.396

Source: Processed from primary research data (2025)

The learning achievement variable in this study found a Q² (Predictive Relevance) value of 0.396. The results obtained with a Q² value above 0 (Q² > 0) indicate that the research obtained good predictive relevance.

Model Fit Test

This Model Fit Test aims to determine or evaluate how well the model fits the empirical data obtained through an overall Goodness of Fit (GoF) assessment, with the requirement that the SRMR value be <0.10 for acceptance.

Table 12 Model Fit Test

	Value	Model Fit
SRMR	0,089	Good Fit
d_ULS	1,354	Good Fit
d_G	0,868	Good Fit
Chi-Square	437,731	Good Fit
NFI	0,688	Good Fit

Source: Processed from primary research data (2025)

The model fit test, based on the SRMR value obtained, is 0.089 <1.00, indicating a good fit. The model fit test, based on the d_uls value, is 1.354 > 0.05, indicating a good fit. The resulting d_G value is 0.868 > 0.05, indicating a good fit. The chi-square value obtained was 437.731 > 0.05, indicating a good fit. The resulting NFI value was 0 < 0.688 < 1, proving that the model fit evaluation was good.

t-Test (Hypothesis Test)

The t-test is a statistical test intended to compare two data groups to determine significant differences. Findings are acceptable if the p-value does not exceed 0.05 and the calculated t-value is > t-table. The table value is 1.660. The variable of learning interest on learning achievement obtained a p-value of 0.000 < 0.05 and the calculated t-value > t-table (6.653 > 1.660), and the variable of learning motivation on learning achievement obtained a p-value of 0.000 < 0.05 and the calculated t-value > t-table (3.868 > 1.660).

Table 13 Hypothesis Testing (t-Test)

Variable (Influence)	Coefficient	t-statistic	p-value	Result	Decision
Learning Interest -> Learning Achievement	0,533	6,653	0,000	Significant	H_0 Rejected H_1 Accepted
Learning Motivation -> Learning Achievement	0,318	3,868	0,000	Significant	H_0 Rejected H_1 Accepted

Source: Processed from primary research data (2025)

5. Discussion

This study found that learning interest is a crucial factor in improving student learning outcomes. This study demonstrates that learning interest has a positive and significant effect on learning achievement. This finding aligns with the following research: There is a significant influence of learning motivation on learning achievement (Munthe & Pasaribu, 2023). Personal development motivation has a positive and significant effect on learning achievement (Jiao et al., 2022)

H1: Learning motivation has a positive and significant influence on learning achievement.

This study also found that learning motivation is another indicator that influences student learning outcomes. Learning interest significantly influences learning achievement (Yulyani, 2022). This study demonstrates that learning motivation has a positive and significant effect on learning achievement. Learning interest has a positive and significant effect on learning achievement (Hendrawijaya, 2022).

H2: Learning interest has a positive and significant influence on learning achievement.

The strength of this relationship indicates that learning interest and the drive to learn play a role in student academic achievement. The greater a student's learning interest and motivation, the higher their academic achievement will be. If students have a strong interest in learning, this will make them more engaged, curious, focused, and attentive to the subject matter, leading to substantial academic achievement. The higher motivation students receive can provide both internal and external impetus to continue learning without coercion. Motivation in learning can also act as a driving force for students to continue striving, study diligently, and remain consistent in the learning process.

6. Conclusion

Theoretical Implications

The findings of this research suggest that motivation to learn and interest are crucial elements affecting student success. This discovery supports learning theories that highlight the significance of students' psychological factors in influencing academic achievement. Strong motivation encourages students to be more eager, steady, and determined when confronting challenges in their learning. The desire to learn is a significant factor in success. This validates the Interest Theory, which posits that interest guides attention, heightens involvement, and enhances students'

comprehension of the content. Elevated interest levels encourage students to be more engaged and less disengaged, leading to better learning results. This discovery offers a theoretical foundation that motivation and interest are interconnected variables that influence learning behavior. In other terms, curiosity for knowledge can enhance motivation, and strong motivation can foster the development of new interests. This implication pertains to humanistic and constructivist educational models that focus on active participation by students. Theoretically, this study establishes a foundation for creating learning strategies that focus not only on presenting content but also on enhancing student motivation and engagement. This aligns with the concept of student-centered learning, where students are seen as active participants in their education.

Practical Implications

This research offers multiple significant implications. For educators, the findings highlight the necessity of adopting teaching approaches that enhance student motivation and engagement in learning, such as incorporating active learning techniques, utilizing digital educational tools, and offering meaningful feedback. This study highlights the necessity for schools to implement supporting programs like literacy initiatives, recognition awards, and the establishment of favorable learning environments to enhance student engagement. Students also need to set specific and clear learning goals for their desired achievements. They also need to be able to create a comfortable and calm learning environment to enhance concentration. Students also need to improve their discipline, curiosity, be more active in the learning process, and set learning goals to ensure their motivation is more directed and focused. In the meantime, for parents, these results highlight the significance of emotional support and proper educational resources at home, along with engaging participation in their children's learning experiences.

Recommendation

According to the research results, schools should implement strategic measures to enhance students' motivation and engagement in learning. An initiative that can be taken is to motivate educators to enhance innovative, imaginative, and enjoyable teaching techniques consistently. Schools must enhance the library's function as a learning resource center by either broadening the collection of subject-related books or implementing the "One Graduate, One Book" initiative, which mandates that each graduate donate a valuable book to their first-year students. Additionally, schools can conduct consistent motivational training sessions and enhance counseling services to support students who are facing challenges or have low motivation in their studies.

For educators, the findings of this research highlight the necessity of creating learning experiences that nurture intrinsic motivation and engage student interest. Educators are encouraged to implement diverse active learning techniques, like project-centered learning or problem-centered learning, that promote direct participation from students. Utilizing digital learning tools or interactive applications can serve as an alternative to engage students' interest in the topics. Equally essential, educators ought to offer basic rewards, such as compliments or other expressions of gratitude, to sustain students' motivation and dedication to learning, rather than focusing only on outcomes.

Parents significantly contribute to enhancing students' enthusiasm and motivation for learning. Parents are expected to foster a supportive educational atmosphere at home, offer necessary resources, and set a consistent study routine while ensuring their children have ample time to rest. Encouraging positive communication should be prioritized more, such as engaging in casual talks about their children's educational journeys or supporting them during reading sessions. Reliable emotional support will assist students in feeling appreciated and inspired to succeed.

Limitations and avenues for future research

The problem in this study is how learning motivation influences learning achievement and how learning interest influences learning achievement. The purpose of this study is to analyze the influence of learning motivation on learning achievement and the influence of learning interest on learning achievement. Other variables were not examined in this study. Input for future researchers

can be added to the variable of parental role as an exogenous variable that can influence student learning achievement, or can also be added as a mediating variable to strengthen the endogenous variable.

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