Edupedia: Jurnal Studi Pendidikan dan Pedagogi Islam
Vol. 10, No. 2, Januari 2026 | pp. 175-192
p-ISSN: 2252-8164 | e-ISSN: 2580-0884 |
https://journal.ibrahimy.ac.id/index.php/edupedia | https://doi.org/10.35316/edupedia.v10i2.8039

THE INFLUENCE OF FAMILY ENVIRONMENT AND LEARNING INTEREST ON PAI LEARNING OUTCOMES THROUGH LEARNING MOTIVATION

Received: 03-08-2025 | **Revised:** 19-01-2026 | **Accepted:** 25-01-2026

Article Info

Author(s):
Rusmayani[1*]
Jumari[2]
Uswatun Khasanah[3]
Kurniyatul Faizah[4]

** Author's Email Correspondence:*
rusmayani.staidenpasar@gmail.com

Affiliation:
[1-3]Pendidikan Agama Islam, Sekolah Tinggi Agama Islam Denpasar, Bali, 80111, Indonesia.
[4]Pendidikan Guru Madrasah Ibtidaiyah, Universitas Islam Ibrahimy Banyuwangi, Jawa Timur, 68465, Indonesia.

Abstract

The lack of family support, interest, and motivation impacts students' low learning outcomes. This study aims to examine and analyze the direct and indirect effects of family environment, interest, and learning motivation on learning outcomes. This research uses an ex post facto quantitative method with SEM-PLS analysis; data were collected using questionnaires and learning outcome documents. The results show: 1) Family environment has a direct, positive, and significant effect on learning interest; 2) Learning interest has a direct, positive, and significant effect on learning motivation; 3) Learning motivation does not have a direct and significant effect on learning outcomes; 4) Family environment does not have a direct and significant effect on learning motivation; 5) Family environment has a direct, positive, and significant effect on learning outcomes; 6) Learning interest does not have a direct, positive, and significant effect on learning outcomes; 7) Indirectly, family environment does not have a significant effect on learning outcomes through learning motivation; 8) Indirectly, learning interest does not have a significant effect on learning outcomes through learning motivation; 9) Indirectly, family environment has a positive and significant effect on learning motivation through learning interest; 10) Indirectly, family environment does not have a positive and significant effect on learning outcomes through learning interest.

Keywords: *Learning Outcomes, Family Environment, Learning Interest, Learning Motivation*

INTRODUCTION

One essential potential that must be cultivated in students is the development of individuals who are faithful and devout. This objective can be achieved through systematic and continuous religious education implemented across multiple settings, including the family, formal educational institutions, and the wider community. The central goal in Islamic education is the creation of individuals who are faithful, devout, and possess noble character (Yusuf, 2019, p. 98). The learning process in school is designed to optimally develop students' potential in three competency

domains: knowledge, skills, and attitudes. Students' learning achievements in school are generally reflected in the acquisition of individual learning outcomes. Learning outcomes are a parameter that can be used as a benchmark for assessing the success of the learning process. The achievement of each student's learning outcomes can be influenced by various factors arising from within and outside the student, as well as the approaches or strategies used in the teaching-learning process (Dalyono, n.d., p. 60), leading to differences among students.

Conversely, the learning process is also substantially shaped by environmental factors. In this context, the environment refers to the social and physical spaces in which students engage in their daily interactions, particularly the family setting. Children spend a considerable portion of their time at home interacting with family members; therefore, the family plays a pivotal role in ensuring the continuity and success of a child's education. This role extends beyond mere supervision to include the creation of a supportive and conducive learning environment at home. Nevertheless, empirical realities indicate that not all family environments are able to effectively support students' learning processes. Many parents are constrained by work-related commitments that limit their involvement in providing adequate attention and academic support. Consequently, a substantial number of parents tend to delegate primary responsibility for their children's education to formal schooling institutions.

Furthermore, students' interest and motivation constitute critical determinants in the attainment of learning objectives. Both constructs are dynamic in nature, as students' levels of interest and motivation may increase or decline in response to the learning experiences and instructional processes they encounter. The presence of a strong learning drive causes students to be enthusiastic about learning and able to receive, understand, or master the required subject matter (Tanjung, 2022, p. 108). Through this teaching-learning process, teachers will encounter students' varying characteristics, often leading to issues related to student motivation, interest, and learning outcomes.

For teachers, students' learning outcomes function as a reflective indicator for evaluating the effectiveness of instructional activities. In the context of Islamic Religious Education (PAI), students are expected to achieve learning outcomes that meet the established Minimum Completion Criteria (Kriteria Ketuntasan Minimal/KKM), set at a score of 75. However, based on observations and interviews conducted with several school principals and PAI teachers in public elementary schools within the Blahbatuh District, empirical evidence indicates that a considerable number of students fail to complete assigned tasks and demonstrate low levels of engagement in PAI learning activities. Another prominent issue identified is the limited attention and academic

guidance provided to students within their family environments. Given the complexity of PAI subject matter, reliance solely on the limited instructional hours allocated at school is insufficient to ensure optimal learning. As a result, the learning outcomes of several students remain below the stipulated minimum score of 75.

This phenomenon reveals a discrepancy between the existing conditions and the ideal educational expectations. Such a gap may be examined through the lens of both internal and external factors influencing student learning outcomes, each contributing in varying degrees to students' academic progress. External factors affecting learning outcomes include the learning environment, particularly the family context. In contrast, internal factors encompass students' interest and motivation in learning. Accordingly, it is assumed that students' learning outcomes are shaped by an interaction of both internal and external influences. Therefore, this study focuses on internal factors, namely learning interest and motivation as well as an external factor, specifically the family environment, in relation to students' PAI learning outcomes.

The facts found above reinforce the findings of (Agusman, Ilyas, Patmaniar, & Alam, 2024, p. 416; Atikah Rizka, 2018, p. 8), which reveal that family environment, interest, and learning motivation significantly influence learning outcomes. Based on the identified problems, the researcher selected 4th-6th-grade students as research subjects as a responsive measure to the prevalent issue of low PAI learning outcomes often found among upper-grade students. Therefore, this problem is deemed important to research. This research has theoretical implications in strengthening the theory of internal and external factors that influence learning outcomes, and practically reveals more deeply the factors causing low student learning outcomes in several public elementary schools in Blahbatuh District, namely Public Elementary School 3 Belega, Public Elementary School 3 Keramas and Public Elementary School 3 Bedulu which have the availability of teaching staff in the field of PAI.

RESEARCH METHODS

This study employed a quantitative ex post facto design with a causal–explanatory approach to examine the relationships among the research variables. Quantitative data in the form of measurable numerical values were collected. The study was conducted in 2025 at three public elementary schools in the Blahbatuh District contains SD Negeri 3 Belega, SD Negeri 3 Keramas, and SD Negeri 3 Bedulu, selected based on the availability of active PAI instruction. Using an expert-based sampling formulation as recommended by Arikunto (2012, p. 49), a saturated

sampling technique was applied, involving all Muslim students in Grades IV–VI, resulting in a total sample of 54 students.

This research uses quantitative descriptive analysis and Structural Equation Modeling-Partial Least Squares (SEM-PLS) methods with the assistance of SmartPLS V. 4.1.1.3 software. There are 4 latent variables in this study, consisting of 2 exogenous latent variables and 2 endogenous latent variables. The exogenous variables in this study include family environment and learning interest. Meanwhile, the endogenous variables in this study are learning motivation and learning outcomes. The learning motivation variable, besides being an endogenous variable, also acts as an intervening variable. To measure the variables of family environment, learning interest, and learning motivation, a questionnaire with a 4-point Likert scale was used. Meanwhile, learning outcomes were categorized by looking at the average student learning outcomes in learning outcome documents, which were then converted into a 1-4 Likert scale.

The variable indicators and research hypotheses can be seen more clearly in the conceptual framework below:

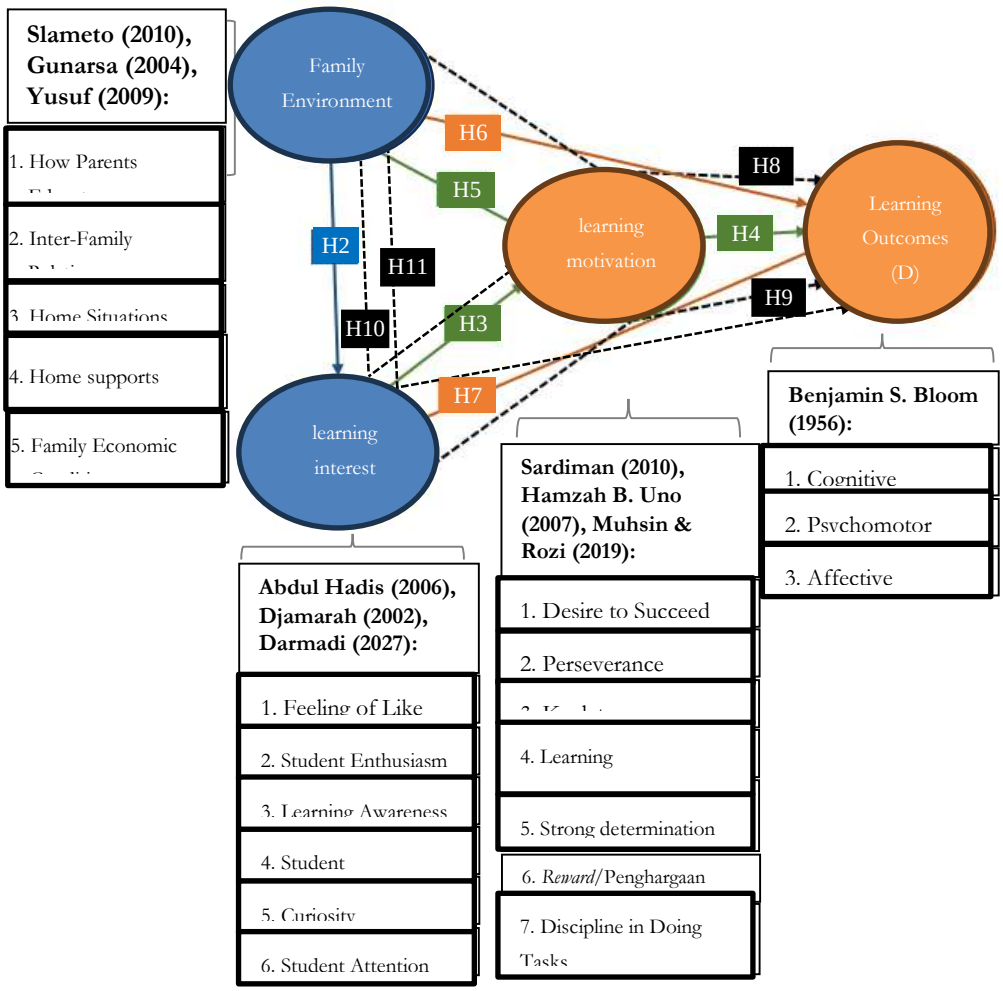

Figure 1. Conceptual Framework and Hypotheses

Keterangan	:	
⟶	:	Direct Influence
⇢	:	Indirect Influence
H1	:	The structural model of the influence of family environment and learning interest on PAI learning outcomes through learning motivation is empirically valid.
H2	:	The direct influence of family environment on learning interest.
H3	:	The direct influence of learning interest on learning motivation.
H4	:	The direct influence of learning motivation on learning outcomes.
H5	:	The direct influence of family environment on learning motivation.
H6	:	The direct influence of family environment on learning outcomes.
H7	:	The direct influence of learning interest on learning outcomes.
H8	:	The indirect influence of family environment on learning outcomes through learning motivation.
H9	:	The indirect influence of learning interest on learning outcomes through learning motivation.
H10	:	The indirect influence of family environment on learning motivation through learning interest.
H11	:	The indirect influence of family environment on learning outcomes through learning interest.

FINDINGS AND DISCUSSION

The Model of Structural SEM

The process to obtain a model fitting the data at the research location was conducted through SEM testing twice. The process included testing the validity and reliability of manifest/indicator variables by examining the outer loadings values. Testing was conducted until values meeting the criteria were obtained, and the resulting SEM model was fit or appropriate, as shown in the following figure:

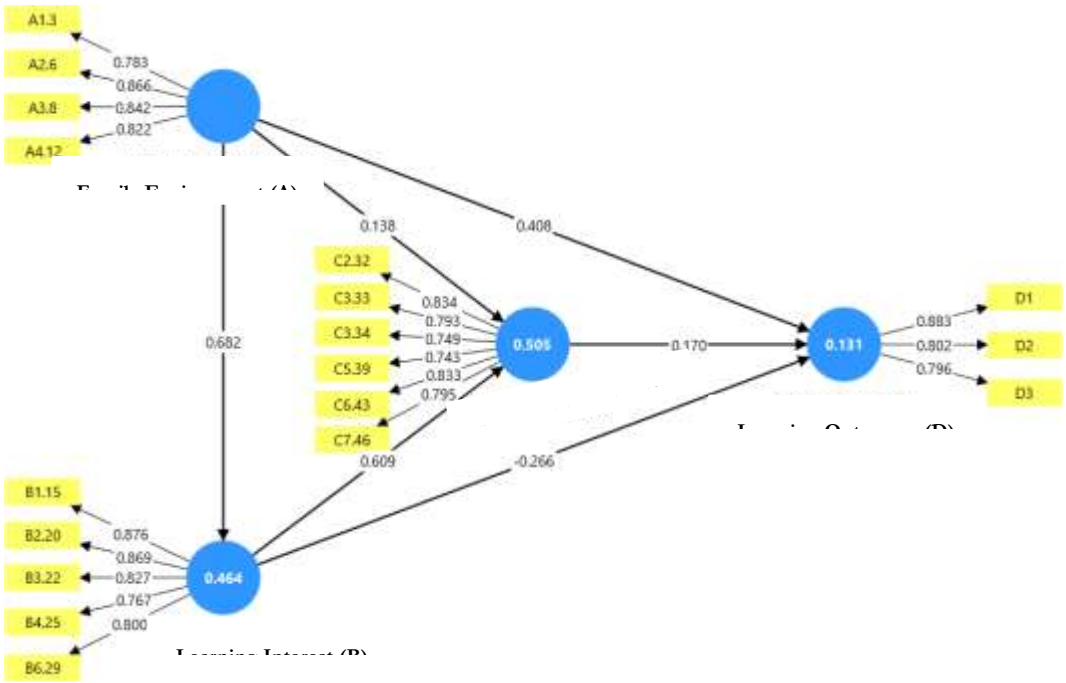

Figure 2. SEM-2 Diagram (Final)

Thus, the SEM model above is a model that has been empirically tested or a model that fits the data at the research location. All its variables are valid and reliable according to the criteria. For convergent validity, acceptable and considered valid are outer loadings values above 0.7 (Hair, Risher, Sarstedt, & Ringle, 2019, p. 10). Besides examining outer loadings values, it is also necessary to know the GoF value, which can be determined from the SRMR, d_ULS, and d_G values to assess whether the obtained data already fits the model. These values can be seen in the table below:

Table 1. Goodness of Fit Test Results

Criteria	Model	Original Sample (O)	Sample Mean (M)	95%
SRMR	Saturated Model	0.098	0.079	0.098
	Estimated Model	0.098	0.079	0.098
d-ULS	Saturated Model	1.648	1.079	1.654
	Estimated Model	1.648	1.079	1.654
d_G	Saturated Model	0.814	0.923	1.488
	Estimated Model	0.814	0.923	1.488

Based on the table above, it can be seen that the values meet the criteria: the SRMR value is 0.098, meaning the model falls within the standard category. The d_ULS value is 1.648, which meets the criteria. Similarly, the d_G value is 0.814. Thus, all assessment aspects meet the ideal criteria, so the data of this study is declared as the model most fitting the research locus. The magnitude of the Q-Square value also needs to be known to see if the model has good predictive power. The results of the Q-Square analysis can be seen in the table below:

Table 2. *Q Square* Values (Predictive Relevance)

Latent Variable	Q^2predict	RMSE	MAE
Learning Outcomes (D)	0.061	1.001	0.861
Learning Interest (B)	0.420	0.809	0.615
Learning Motivation (C)	0.249	0.910	0.746

The Q-Square criterion is that if the value is > 0, the model has predictive relevance, whereas if the value is < 0, the model does not have predictive relevance. Based on the table above, the Q-Square values for Learning Interest (0.420), Learning Motivation (0.249), and Learning Outcomes (0.061) meet the existing criteria, so they can be stated to have good predictive relevance because the resulting Q^2 value > 0.

Direct and Indirect Influences Among Variables

In this study, there are 6 direct influences that must be known. To determine whether there is a direct influence or not, it can be seen through the Path Coefficients output as shown in the table below:

Table 3. *Path Coefficients* (Direct Influence)

No Hipotysis	Variabel	*Path Coefficients*	*T statistics*	*P Values*
2	Family Environment (A) -> Learning Interest (B)	0.682	7.164	0.000
3	Learning Interest (B) -> Learning Motivation (C)	0.609	5.720	0.000
4	Learning Motivation (C) -> Learning Outcomes (D)	0.170	0.738	0.460
5	Family Environment (A) -> Learning Motivation (C)	0.138	1.019	0.308
6	Family Environment (A) -> Learning Outcomes (D)	0.408	2.028	0.043
7	Learning Interest (B) -> Learning Outcomes (D)	-0.266	1.223	0.221

Essentially, path coefficients have values ranging from -1 to 1. Values of 0--1 indicate a positive relationship, while -1--0 indicate a negative relationship. Therefore, if the coefficient is negative, an increase in the exogenous variable will be followed by a decrease in the endogenous variable, meaning the direction of influence is opposite.

1. The relationship between family environment and learning interest is a direct relationship with a coefficient value of 0.682 and a p value of 0.000 (0.000 < 0.05). Thus, it can be

interpreted that every one-unit increase in the family environment variable will positively and significantly influence learning interest by 68.2%.

2. The relationship between learning interest and learning motivation is a direct relationship with a coefficient value of 0.609 and a p value of 0.000 (0.000 < 0.05). Thus, it can be interpreted that every one-unit increase in the learning interest variable will positively and significantly influence learning motivation by 60.9%.
3. The relationship between learning motivation and learning outcomes is a direct relationship with a coefficient value of 0.170, meaning the learning motivation variable has a positive directional relationship with learning outcomes. However, the obtained p value is greater than 0.05 (0.460 > 0.05), so it can be interpreted that every one-unit increase in the learning motivation variable will positively but not significantly influence learning outcomes by 17%.
4. The relationship between family environment and learning motivation is a direct relationship with a coefficient value of 0.138 and a p value of 0.308 (0.308 > 0.05). Thus, it can be interpreted that every one-unit increase in the family environment variable will positively but not significantly influence learning motivation by 13.8%.
5. The relationship between family environment and learning outcomes is a direct relationship with a coefficient value of 0.408 and a p value of 0.043 (0.043 < 0.050). Thus, it can be interpreted that every one-unit increase in the family environment variable will positively and significantly influence learning outcomes by 40.8%.
6. The relationship between learning interest and learning outcomes is a direct relationship with a coefficient value of -0.266, meaning the learning interest variable has a negative directional relationship with learning outcomes. Then, the obtained p value is greater than 0.05 (0.221 > 0.05), so it can be interpreted that every one-unit increase in the learning interest variable will decrease learning outcomes by 26.6%.

This study has 4 indirect influences that must be known. To determine whether there is an indirect influence among these variables, it can be seen through the specific indirect effects output as shown in the table below:

Table 4. *Specific Indirect Effects* (Indirect Influence)

No Hipotesis	Variabel	*Path Coefficients*	*T Statistics*	*P Value*
8	Family Environment (A) -> Learning Motivation (C) -> Learning Outcomes (D)	0.024	0.455	0.649
9	Learning Interest (B) -> Learning Motivation (C) -> Learning Outcomes (D)	0.104	0.693	0.489

No Hipotesis	Variabel	*Path Coefficients*	*T Statistics*	*P Value*
10	Family Environment (A) -> Learning Interest (B) -> Learning Motivation (C)	0.415	3.941	0.000
11	Family Environment (A) -> Learning Interest (B) -> Learning Outcomes (D)	-0.181	1.124	0.261

The specific indirect effects results show the indirect relationships among latent variables in the SEM model. The detailed results are as follows:

1. The relationship of family environment on learning outcomes through learning motivation has a coefficient value of 0.024 and a p value of 0.649 (0.649 > 0.05). Thus, it can be interpreted that the family environment variable on learning outcomes has a positive but not significant influence when mediated by learning motivation, at 2.4%.
2. The relationship between learning interest on learning outcomes through learning motivation has a coefficient value of 0.104 and a p value of 0.489 (0.489 > 0.05). Thus, it can be interpreted that the learning interest variable on learning outcomes has a positive but not significant influence when mediated by learning motivation, at 10.4%.
3. The relationship between family environment on learning motivation through learning interest has a coefficient value of 0.415 and a p value of 0.000 (0.000 < 0.05). Thus, it can be interpreted that the family environment variable on learning motivation has a positive and significant influence when mediated by learning interest, at 41.5%.
4. The relationship of family environment on learning outcomes through learning interest has a coefficient value of -0.181 and a p value of 0.261 (0.261 > 0.05). Thus, it can be interpreted that the family environment variable will decrease learning outcomes by 18.1% when mediated by learning interest.

The Effects of Family Environment, Interest, and Learning Motivation on PAI's Learning Outcomes

The structural model was empirically supported and demonstrated adequate predictive relevance, as indicated by a Q^2 value greater than zero. Structural Equation Modeling (SEM) analysis was conducted to identify the model that best fit the empirical data through a two-stage process of validity and reliability assessment based on outer loading values. The results of the analysis revealed that the path coefficient for the effect of the family environment on learning interest was 0.682, with a t-statistic of 7.164 and a p-value of 0.000. These findings indicate that the family environment exerts a positive and statistically significant influence on students' learning

interest. Substantively, a one-unit increase in the family environment variable corresponds to a 68.2% increase in learning interest, while the remaining 31.8% is attributable to other factors not examined in this study. This finding corroborates the theoretical propositions advanced by Slameto, Chen, and Ding, which emphasize that a supportive family environment enhances students' interest, motivation, and learning outcomes by fostering a safe and comfortable home atmosphere (Slameto, 2010, p. 60-64; Ding, 2025, p. 75; Chen, Chen, Yu, Wei, & Yang, 2024, p. 5).

This finding is consistent with the study conducted by Nurmaliza & Safrul (2023, p. 80) which reported a statistically significant effect of the family environment on learning interest, accounting for 57.7% of the variance. Similarly, Zumi (2020, p. 71). found that the family environment exerted a positive and significant influence on learning interest, with a coefficient of determination of 0.443, indicating that 44.3% of students' learning interest was attributable to family environmental factors. These findings are further supported by the research of Endalina and Binner, as reported by Sekali and Sihaloho (2022, p. 70-71) which demonstrated a positive and significant relationship between the family environment and learning interest, evidenced by a correlation coefficient of 0.350 (classified as strong) and a coefficient of determination of 0.672, suggesting that 67.2% of learning interest was influenced by the family environment.

Accordingly, a more supportive family environment is associated with higher levels of students' learning interest. A positive and harmonious family setting fosters a comfortable learning atmosphere, which in turn directly enhances students' interest in learning. Furthermore, the results of the analysis indicate that the path coefficient for the effect of learning interest on learning motivation is 0.609, with a t-statistic of 5.720 and a p-value of 0.000. These findings demonstrate that learning interest has a positive and statistically significant influence on learning motivation. Substantively, a one-unit increase in learning interest corresponds to a 60.9% increase in learning motivation, while the remaining 39.1% is attributable to other factors not examined in this study. This result aligns with research showing that partially, learning interest has a positive and significant influence on learning motivation of 0.397. This figure means that every increase in learning interest value increases learning motivation by 39.7% (Hidayati, Risnawati, & Za'ba, 2024, p. 245). This finding is reinforced by the opinion of Ofem U., who says that students with high learning interest tend to be more enthusiastic in participating in learning, find it easier to understand the material taught, and are more driven to overcome learning difficulties (Arikpo & Grace, 2015, p. 34).

Accordingly, higher levels of learning interest tend to be associated with increased learning motivation. When students demonstrate strong interest and active engagement in learning

activities, they are more likely to exhibit greater drive and enthusiasm toward the learning process. In this sense, learning interest serves as an important antecedent of students' learning motivation. The results of the analysis further indicate that the path coefficient for the effect of learning motivation on learning outcomes is 0.170, with a t-statistic of 0.738 and a p-value of 0.460. These findings suggest that learning motivation has a positive but statistically non-significant effect on learning outcomes. Although a one-unit increase in learning motivation is associated with a 17% increase in learning outcomes, the effect is not strong enough to reach statistical significance, indicating that approximately 83% of the variance in learning outcomes may be explained by other factors not examined in this study.

This finding strengthens the opinion of Sofia and Very, who state that there is a correlation between high learning motivation and good learning outcomes, as evidenced by findings stating that students with high learning motivation will achieve good learning outcomes (Hikmah & Saputra, 2022, p. 10). This finding is similar to the case in the research by Ahmad Kharis, which states that because the obtained significance value is greater than 0.05, learning motivation has a positive influence of 26% but is not significant on learning outcomes (Kharis, 2022, p. 137). Additionally, other research also obtained similar results: learning motivation has a positive but not significant influence on learning outcomes. This is seen from the obtained regression coefficient value being positive, namely 0.236. This means that every one-unit increase in motivation will increase learning outcomes by 23.6%, but it is not significant because it has a t-count > t-table and a significance level of 0.097 (> 0.05) (Yani & Hasibuan, 2022, p. 10592).

Based on these two studies, it can be inferred that learning motivation does not consistently exert a significant influence on learning outcomes. This inconsistency may be attributable to the presence of other factors beyond the scope of the variables examined in the present study.

The analysis results show that the path coefficient value for the influence of family environment on learning motivation is 0.138 with a *t statistic* of 1.019 and a *p value* of 0.308. Based on these values, it can be concluded that the family environment variable has a positive but not significant influence on learning motivation. This result indicates that every one-unit increase in learning interest influences an increase in learning motivation by 13.8%, while the remaining 86.2% is influenced by other factors not studied. This aligns with research stating that there is no significant relationship between household conditions and learning motivation, as evidenced by a sig. value of 0.081 > 0.05 (Hidayat, Thahir, Nengsi, Syahid, & Sudarmono, 2025, p. 248). However, this research result is not in line with previous research stating that family environment has a positive and significant influence on learning motivation. This statement is proven by the obtained

significance value of 0.026 < 0.05, meaning that family environment directly influences learning motivation (Lestari & Listiadi, 2022, p. 310).

Thus, it can be said that family environment does not always have a significant influence on learning motivation. According to Creswell, this could be influenced by several other factors, such as differences in samples or research subjects, lack of data support, and the presence of other unobserved variables outside the research discussion variables (Creswell, 2018, pp. 230--232).

The analysis results show that the path coefficient value for the influence of family environment on learning outcomes is 0.408 with a *t statistic* of 2.028 and a *p value* of 0.043. Based on these values, it can be concluded that the family environment variable has a positive and significant influence on learning outcomes. This means that the better the student's family environment, the more the student's learning outcomes will increase. This result indicates that every one-unit increase in family environment significantly influences an increase in learning outcomes by 40.8%, while the remaining 59.2% is influenced by other factors not studied. This finding reinforces the constructivist learning theory of Jean Piaget and Vygotsky, which states that learning occurs when children construct knowledge based on continuous experience and interaction with their social environment. The environment, such as the family in this theory, is considered an important factor supporting the learning process, leading to change. Change here is meant as the learning outcomes obtained by students after undergoing the learning process (Pratiwi, 2020, p. 72-78).

This result aligns with previous research by Agusman et al., and Xie Sily which shows that family environment significantly influences learning outcomes (Agusman et al., 2024, p. 424)(Xie Sily, 2025). Similarly, previous research by Siwi Utaminingtyas, Subaryana, and Siti Fatimah found results that family environment and learning outcomes have a significant relationship with a correlation value of 0.618 and a significance value of 0.002 (< 0.05). This relationship is at a strong level because the correlation value is in the range of 0.60 - 0.799 (Utaminingtyas, Subaryana, & Fatimah, 2020, p. 354).

The analysis results show that the path coefficient value for the influence of learning interest on learning outcomes is -0.266 with a *t statistic* of 1.223 and a *p value* of 0.221. Based on these values, it can be concluded that the learning interest variable has a negative and not significant influence on learning outcomes. Therefore, it can be interpreted that every one-unit increase in the learning interest variable will negatively and not significantly influence learning outcomes by 26.6%. This result contradicts the general theory stating that learning interest should positively influence learning outcomes. However, this research result aligns with research stating that learning interest

does not influence learning outcomes. The regression test results show a negative directional influence between learning interest and learning outcomes with a correlation value of -0.320. In that research, the suspected cause was students' lack of attention to the material and less effective teaching methods, so the scores obtained by students did not meet expectations (Kismurdiani, Wijoyo, & Herlambang, 2022, p. 5029--5030).

From that research, it can be concluded that learning interest does not always have a significant influence on learning outcomes. This finding reminds us that the relationship between interest and learning outcomes is not always positive. Although in general theory it is explained that learning interest influences learning outcomes, there is empirical evidence showing that learning interest has a negative influence in certain contexts and conditions, for example, related to teaching methods, media use, or student attention to the material being taught. Furthermore, it is explained through the Over-justification Effect theory originating from Edward L. Deci in 1971. This theory says that when a person likes doing an activity, such as learning, but is then given something or forced to do it. They will perceive the activity as only to obtain that reward, rather than for their personal enjoyment, so over time they will become lazy to do it (Deci, 1971, p. 109).

Based on this theory, interest is depicted as an activity generated not from a student's voluntary will but as something obtained under coercion. This could cause a decline in the learning outcomes obtained if the interest possessed is gained through pressure (e.g., from parents) and so on (Grolnick & Ryan, 1987, p. 897). Deci and Ryan in self-determination theory also state that excessive external control over a child will damage the interest they already possess. If excessive external pressure is applied to students, it can damage existing learning interest, which will ultimately lower their learning outcomes. Interest or motivation originating externally in students is not as strong as interest or motivation originating from within the students themselves. Additionally, there are other conditions causing a decline in learning outcomes due to learning interest, such as when students lack competence (having interest but not accompanied by sufficient ability) (Deci & Ryan, 1985, p. 43-58).

The analysis results show that the coefficient value for the indirect influence of family environment on learning outcomes through learning motivation is 0.024, so it can be said that this relationship has a positive influence when mediated by learning motivation. However, looking at the *p value* greater than 0.05 (0.649 > 0.05), it can be concluded that every one-unit increase in family environment influences an increase in learning outcomes by 2.4%, although not significant when mediated by learning motivation. Thus, it can be said that students who have a good and positive family environment do not necessarily have high learning motivation, so that learning

motivation is unable to mediate the relationship between family environment and learning outcomes. This result aligns with previous research, which states that there is no significant influence between family environment and learning outcomes through the mediation of learning motivation, as evidenced by a significance value greater than 0.05, namely 0.053 (Lestari & Listiadi, 2022, p. 311). In this research, it is stated that not every student has the same family environment that motivates them to learn. This reinforces the opinion of Tuhardjo et al., who state that such results are caused by differences in motivation possessed and it is suspected there are other variables mediating family environment and learning outcomes, such as *self-efficacy* (Tuhardjo, Juliardi, & Arief Rafsanjani, 2016, p. 3).

The results of the analysis indicate that the coefficient for the indirect effect of learning interest on learning outcomes through learning motivation is 0.104, suggesting a positive relationship when learning motivation is specified as a mediating variable. However, given that the associated p-value exceeds the conventional significance threshold (0.489 > 0.05), this indirect effect is not statistically significant. Substantively, a one-unit increase in learning interest is associated with a 10.4% increase in learning outcomes through learning motivation; nevertheless, this effect does not reach statistical significance, indicating that approximately 89.6% of the variance in learning outcomes is attributable to other factors not examined in this study. Accordingly, these findings suggest that students with high learning interest do not necessarily exhibit high learning motivation, and consequently, learning motivation does not function as an effective mediator in the relationship between learning interest and learning outcomes.

This result is consistent with the findings of Kismurdiani et al. (2022, p. 5029–5030), who reported that learning interest and learning motivation did not significantly influence learning outcomes, as indicated by a significance value of 0.177 (> 0.05). Moreover, this finding aligns with Dalyono's theoretical perspective, which posits that internal factor such as learning interest and motivation influence students' learning outcomes; however, in the present study, these influences were not empirically supported at a statistically significant level (Dalyono, n.d., p. 60).

The analysis results show that the coefficient value for the indirect influence of family environment on learning motivation through learning interest is 0.415, so it can be said that this relationship has a positive influence when mediated by learning interest. Looking at the *p value* less than 0.05 (0.000 > 0.05), it can be concluded that family environment on learning motivation has a significant influence when mediated by learning interest. This shows that about 41.5% of learning motivation is influenced by a good and positive family environment through high learning interest significantly, while the remaining 58.5% is influenced by other factors not studied. Thus, it can be

said that the learning interest variable is able to mediate the relationship between family environment and learning motivation. The family environment indirectly motivates students but is done by first fostering learning interest in students. This aligns with research stating that the family environment, which includes emotional support, learning facilities, and parenting style, significantly influences learning interest, which then increases academic motivation. A good, positive family environment that allows exploration is more effective in fostering interest than one that is coercive (Nurmalitasari, 2022, p. 12).

The results of the analysis indicate that the coefficient for the indirect effect of the family environment on learning outcomes through learning interest is 0.181, suggesting a negative relationship when learning interest is specified as a mediating variable. However, given that the associated p-value exceeds the significance threshold (0.261 > 0.05), this indirect effect is not statistically significant. These findings indicate that the family environment does not exert a significant influence on learning outcomes through learning interest. Substantively, a one-unit increase in the family environment is associated with an 18.1% decrease in learning outcomes when mediated by learning interest, although this effect lacks statistical significance.

This result may be interpreted in light of Ryan's theoretical perspective, which conceptualizes interest as an activity that may arise not solely from students' intrinsic volition but also from external pressure or coercion. When learning interest is externally imposed, such as through parental pressure, it may fail to enhance, and may even undermine, students' learning outcomes (Grolnick & Ryan, 1987, p. 897). Nevertheless, this finding contrasts with the study by Dita Angelia et al., which reported that the family environment had a significant effect on learning achievement through learning interest, as indicated by a significance value of 0.000 (< 0.05) (Putri, Stevani, & Putri, 2024, p. 365).

CONCLUSION

This study concludes that students at the research locus have a good family environment, high learning interest, high learning motivation, and good learning outcomes. The structural SEM model is empirically proven and has good predictive relevance. The analysis results show that directly, family environment has a positive and significant influence on learning interest (p value 0.000). Directly, learning interest has a positive and significant influence on learning motivation (p value 0.000). Directly, learning motivation does not have a positive and significant influence on learning outcomes (p value 0.460). Directly, family environment does not have a positive and

significant influence on learning motivation (p value 0.308). Directly, family environment has a positive and significant influence on learning outcomes (p value 0.043). Directly, learning interest does not have a positive and significant influence on learning outcomes (p value 0.221).

Then, indirectly, family environment does not have a positive and significant influence on learning outcomes through learning motivation (p value 0.649). Indirectly, learning interest does not have a positive and significant influence on learning outcomes through learning motivation (p value 0.489). Indirectly, family environment has a positive and significant influence on learning motivation through learning interest (p value 0.000). Indirectly, family environment does not have a positive and significant influence on learning outcomes through learning interest (p value 0.261).

Based on the findings, PAI teachers are encouraged to consistently motivate students to enhance learning outcomes. Parents should increase their involvement in supporting students' learning, while students are expected to maintain effective communication and regular study habits. Schools are advised to strengthen collaboration among teachers, parents, and students. This study may also serve as a reference for future research examining additional factors influencing PAI learning outcomes.

REFERENCES

Agusman, A., Ilyas, M., Patmaniar, P., & Alam, S. (2024). Pengaruh Lingkungan Keluarga, Minat Belajar dan Motivasi Belajar terhadap Hasil Belajar Matematika Siswa SD Kecamatan Malangke. *Pedagogy: Jurnal Pendidikan Matematika*, *9*(2), 416–432. Retrieved from https://e-journal.my.id/pedagogy/article/view/5180

Arikpo, O. U., & Grace, D. (2015). Pupils Learning Preferences and Interest Development in Learning. *Journal of Education and Practice*, *6*(21).

Arikunto, S. (2012). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.

Atikah Rizka. (2018). Pengaruh Lingkungan Keluarga Dan Minat Belajar Terhadap Hasil Belajar Ekonomi Siswa SMAN Kecamatan Koto Tangah Kota Padang. *Jurnal Ecogen*, (1).

Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Los Angeles: SAGE Publication.

Chen, X., Chen, Y., Yu, X., Wei, J., & Yang, X. (2024). The impact of family socioeconomic status on parental involvement and student engagement during COVID-19 in promoting academic achievement: A longitudinal study in Chinese children. *Journal of Experimental Child Psychology*, *246*, 105992. doi: https://doi.org/10.1016/j.jecp.2024.105992

Ding, Z. (2025). Impact of Family Environment on Academic Performance, Self-efficacy, and Learning Motivation. *Lecture Notes in Education Psychology and Public Media*, *78*, 70–78. doi: 10.54254/2753-7048/2025.19180

Dalyono, M. (n.d.). *Psikologi Pendidikan*. Jakarta: Rineka Cipta.

Deci, E. L. (1971). Effects of Externally Mediated Rewards on Intrinsic Motivation. *Journal of Personality and Social Psychology*, *18*(1), 105–115. doi: 10.1037/h0030644

Deci, E. L., & Ryan, Richard. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum Press.

Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in Children's Learning: An Experimental and Individual Difference Investigation. *Journal of Personality and Social Psychology*, *52*(5), 890–898. doi: 10.1037/0022-3514.52.5.890

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report the Results of PLS-SEM. *European Business Review*, *31*(1). doi: 10.1108/EBR-11-2018-0203

Hidayat, R. A., Thahir, I., Nengsi, R., Syahid, A., & Sudarmono. (2025). Pengaruh Lingkungan Keluarga terhadap Motivasi Belajar Peserta Didik di Kelas IX MTs Negeri 1 Kota Makassar. *Jurnal Ilmiah Pendidikan Dasar*, *10*(3).

Hidayati, O., Risnawati, R., & Za'ba, N. (2024). Pengaruh Minat Belajar dan Percaya Diri terhadap Motivasi Belajar Siswa pada Mata Pelajaran Pendidikan Agama Islam. *Ainara Journal (Jurnal Penelitian Dan PKM Bidang Ilmu Pendidikan)*, *5*(3), 240–246. doi: 10.54371/ainj.v5i3.477

Hikmah, S. N., & Saputra, V. H. (2022). Studi Pendahuluan Hubungan Korelasi Motivasi Belajar dan Pemahaman Matematis Siswa terhadap Hasil Belajar Matematika. *Jurnal Ilmiah Matematika Realistik*, *3*(1).

Kharis, A. (2022). Pengaruh Motivasi Belajar terhadap Hasil Belajar Siswa Sekolah Dasar Negeri Bener 02 Kabupaten Semarang. *Wiyata Dharma: Jurnal Penelitian Dan Evaluasi Pendidikan*, *8*(2). doi: 10.30738/wd.v8i2.2531

Kismurdiani, N. S., Wijoyo, S. H., & Herlambang, A. D. (2022). Pengaruh Motivasi Belajar dan Minat Belajar terhadap Hasil Belajar Mapel Administrasi Sistem Jaringan melalui Kegiatan Praktikum pada Siswa Kelas XI TKJ 2 SMK N 11 Malang. *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer, 6*(10).

Lestari, D. R., & Listiadi, A. (2022). Peran Motivasi Belajar dalam Memediasi Lingkungan Keluarga dan Kemandirian Belajar terhadap Hasil Belajar Akuntansi Keuangan Menengah 1. *Jurnal Pendidikan Akuntansi*, *10*(3), 304–314. doi: 10.26740/jpak.v10n3.p304-314

Nurmaliza, S. K., & Safrul, S. (2023). Pengaruh Kondisi Lingkungan Keluarga terhadap Minat Belajar Siswa Kelas V Sekolah Dasar. *Pionir: Jurnal Pendidikan*, *11*(3). doi: 10.22373/pjp.v11i3.16764

Pendidikan Ekonomi, J., Hirma Septianingrum, C., & Fitrayati, D. (n.d.). *Motivasi Belajar Dan Lingkungan Keluarga Terhadap Hasil Belajar Siswa Kelas Xi Mata Pelajaran Ekonomi*. doi: 10.26740/jupe.v12n1.p1

Pratiwi, U. (2020). *Psikologi Pendidikan: Pedoman Penerapan dalam Proses Pembelajaran*. Yogyakarta: DIVA Press.

Putri, Dita A., Stevani, & Putri, Y. E. (2024). Pengaruh Fasilitas Belajar, Kebiasaan Belajar, Teman Sebaya, dan Lingkungan Keluarga terhadap Prestasi Belajar Siswa melalui Minat Belajar sebagai Variabel Intervening pada Siswa Kelas XI Mata Pelajaran Ekonomi di SMA N 2 Bukittinggi. *Jurnal Teknologi Pendidikan Dan Pembelajaran*, *2*(1).

Sekali, E. K., & Sihaloho, B. (2022). Pengaruh Lingkungan Keluarga terhadap Minat Belajar Siswa Kelas VI SDN 020254 Binjai Kota. *Jurnal Pendidikan Simalem*, *1*(2).

Slameto. (2010). *Belajar dan Faktor-Faktor yang Mempengaruhinya*. Jakarta: Rineka Cipta.

Tanjung, Y. P. (2022). Hubungan Minat Belajar dan Motivasi Belajar dengan Hasil Belajar Matematika pada Siswa Kelas V di MIs Nurul Hikmah Ujung Padang. *PIONIR: Jurnal Pendidikan*, *11*(1). doi: 10.22373/pjp.v11i1.13108

Tuhardjo, T., Juliardi, D., & Arief Rafsanjani, M. (2016). The Effect of Learning Effectiveness and Self-Efficacy on Intermediate Financial Accounting I Learning Outcome. *IOSR Journal of Humanities and Social Science*, *21*(09), 01–09. doi: 10.9790/0837-2109080109

Utaminingtyas, S., Subaryana, S., & Fatimah, S. (2020). Pengaruh Lingkungan Keluarga dan Minat Belajar terhadap Hasil Belajar Matematika Peserta Didik Kelas V Sekolah Dasar Tahun Ajaran 2019/2020. *DWIJA CENDEKIA: Jurnal Riset Pedagogik*, *4*(2), 349. doi: 10.20961/jdc.v4i2.45460

Xie Sily, L. (2025). A review of the influence of family environment on adolescents' academic achievement performance. *Journal of International Education and Development*, *9*(6), 91–96. doi: 10.47297/wspiedwsp2516-250020.20250906

Yani, F., & Hasibuan, V. U. (2022). Pengaruh Cara Belajar dan Motivasi serta Fasilitas Belajar terhadap Hasil Belajar IPA Siswa kelas VI SD di Kecamatan Pancur Batu. *Jurnal Pendidikan Dan Konseling*, *4*(6).

Yaniawati, R. P. (2024). *Metodologi Penelitian: Konsep, Teknik, dan Aplikasi*. Bandung: Refika Aditama.

Yusuf, K. M. (2019). *Tafsir Tarbawi: Pesan-Pesan Al-Qur'an Tentang Pendidikan*. Jakarta: AMZAH.

Zumi, A. N. (2020). *Pengaruh Lingkungan Keluarga terhadap Minat Belajar Siswa Kelas IX pada Mapel PPKN di SMP N 5 Kota Jambi*. Universitas Jambi, Jambi.