

The Relationship Between Family, School, and Community Learning Environments and Student Learning Achievement in Elementary School

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Article info	Abstract
Article History Received: 14/06/2026 Revised: 27/06/2026 Accepted: 25/07/2026 ✉ Corresponding author	<i>Student learning achievement is influenced by multiple educational environments, yet previous studies have mostly examined family, school, and community environments separately. Evidence regarding their simultaneous relationships with elementary students' learning achievement remains limited. This study aimed to examine the relationships between family, school, and community environments and students' learning achievement at SDN Batu Ampar 10 PG. A quantitative cross-sectional survey was conducted with 67 students selected through simple random sampling. Data were collected using four-point Likert-scale questionnaires and analyzed using validity and reliability tests, classical assumption tests, multiple linear regression, t-tests, F-test, and the coefficient of determination (R^2) in SPSS. The findings showed that all instruments were valid and reliable, while the regression model met the assumptions of normality, multicollinearity, and heteroscedasticity. The school environment ($\beta = 0.478$, $p < 0.001$) and community environment ($\beta = 0.263$, $p = 0.023$) were significantly associated with learning achievement, whereas the family environment, despite showing a positive coefficient ($\beta = 0.179$), was not statistically significant ($p = 0.074$). Collectively, the three environments significantly explained students' learning achievement ($F = 29.062$, $p < 0.001$; $R^2 = 0.581$). These findings indicate that school and community environments demonstrate stronger associations with learning achievement than the family environment in this context. The study underscores the importance of integrating multiple educational environments to better support elementary students' academic achievement.</i> Kata Kunci: Educational Environment, Family Environment, Learning Achievement, Elementary Education Abstrak Prestasi belajar siswa dipengaruhi oleh berbagai lingkungan pendidikan, namun penelitian sebelumnya umumnya mengkaji lingkungan keluarga, sekolah, dan masyarakat secara terpisah. Bukti empiris mengenai hubungan ketiganya secara simultan dengan prestasi belajar siswa sekolah dasar masih terbatas. Penelitian ini bertujuan menganalisis hubungan lingkungan keluarga, lingkungan sekolah, dan lingkungan masyarakat dengan prestasi belajar siswa di SDN Batu Ampar 10 PG. Penelitian menggunakan pendekatan kuantitatif dengan desain survei cross-sectional terhadap 67 siswa yang dipilih melalui simple random sampling. Data dikumpulkan menggunakan kuesioner skala Likert empat poin dan dianalisis melalui uji validitas, reliabilitas, asumsi klasik, regresi linear berganda, uji t, uji F, serta koefisien determinasi (R^2) menggunakan SPSS. Hasil penelitian

menunjukkan seluruh instrumen valid dan reliabel serta model memenuhi asumsi normalitas, multikolinearitas, dan heteroskedastisitas. Lingkungan sekolah ($\beta = 0,478$; $p < 0,001$) dan lingkungan masyarakat ($\beta = 0,263$; $p = 0,023$) berhubungan signifikan dengan prestasi belajar, sedangkan lingkungan keluarga memiliki koefisien positif ($\beta = 0,179$) tetapi tidak signifikan ($p = 0,074$). Secara simultan, ketiga lingkungan berhubungan signifikan dengan prestasi belajar ($F = 29,062$; $p < 0,001$; $R^2 = 0,581$). Temuan ini menunjukkan bahwa lingkungan sekolah dan masyarakat memiliki hubungan yang lebih kuat dibandingkan lingkungan keluarga serta menegaskan pentingnya mengintegrasikan berbagai lingkungan pendidikan untuk mendukung peningkatan prestasi belajar siswa sekolah dasar.

Kata Kunci: Lingkungan Pendidikan, Lingkungan Keluarga, Prestasi Belajar; Pendidikan Dasar

INTRODUCTION

Education plays a fundamental role in developing human resources capable of adapting to social, technological, and economic changes. Beyond transferring knowledge, education is expected to foster students' cognitive, affective, and psychomotor competencies to prepare them for lifelong learning. The success of educational processes is commonly reflected in students' learning achievement, which represents the extent to which students attain the intended learning objectives. Learning achievement therefore serves as an important indicator of educational quality and students' academic development (Manullang & Silitonga, 2022).

Students' learning achievement is influenced by multiple internal and external factors. Internal factors include intelligence, motivation, interest, learning discipline, and psychological readiness, whereas external factors consist of the environments in which students grow and learn. Among these external factors, the educational environment has consistently been recognized as one of the most influential determinants of students' academic success. A supportive educational environment not only facilitates knowledge acquisition but also shapes learning habits, attitudes, and motivation that contribute to sustainable academic development (Hanipah et al., 2022).

Educational environment in this study encompasses three interconnected dimensions, namely the family environment, school environment, and community environment. These three environments continuously interact throughout students' learning experiences. The family environment provides the earliest educational foundation through parental guidance, emotional support, supervision, and learning facilities. The school environment offers structured learning experiences through teachers, curriculum implementation, classroom climate, and educational facilities. Meanwhile, the community environment reinforces students' social interaction, learning culture, peer influence, and opportunities to practice positive learning behaviors outside school. Rather than operating independently, these three environments complement one another in supporting students' academic achievement (Rochmah & Kurniawan, 2022).

Among these dimensions, the family environment is widely acknowledged as the first educational institution experienced by children. Parents play essential roles in developing learning motivation, study discipline, emotional security, and educational aspirations. Students receiving adequate parental attention and learning support generally demonstrate stronger academic engagement and better learning outcomes. Conversely, limited parental involvement may reduce students' motivation and learning persistence, ultimately affecting academic performance (Suwarni, 2023).

The school environment constitutes the second major educational setting where students spend a considerable proportion of their daily activities. Teachers' instructional competence, learning facilities, classroom management, and the overall school climate contribute significantly to students' learning experiences. Schools that provide safe, supportive, and engaging learning environments encourage students to participate actively in classroom activities, thereby enhancing academic achievement. A positive school climate also strengthens students' confidence, collaboration, and learning motivation (Amrulloh et al., 2024).

Outside formal education, students continue interacting with the broader community. The community environment influences students through peer relationships, neighborhood culture, and social activities. Positive peer interactions and supportive community values encourage productive learning habits, whereas unfavorable social environments may distract students from academic responsibilities. Therefore, community support remains an integral component in fostering students' learning achievement (Pemba et al., 2022).

Considering these interrelated educational environments, learning achievement should not be viewed solely as the outcome of individual ability. Instead, it reflects the cumulative influence of educational experiences obtained from family, school, and community settings. Examining these three dimensions simultaneously enables a more comprehensive understanding of how educational environments collectively relate to students' academic achievement compared with investigating each factor independently (Ali et al., 2023).

Previous empirical studies have consistently demonstrated that students' learning achievement is associated with various educational environments. Studies by (Amrulloh et al., 2024) reported that parental involvement and family support positively contribute to students' academic achievement because they foster learning motivation and discipline at home. Similarly, (Rochmah & Kurniawan, 2022) found that a conducive school environment, characterized by effective teaching practices, adequate learning facilities, and positive classroom interactions, significantly supports students' academic performance. Furthermore, research conducted by (Suwarni, 2023) emphasized that community support and positive peer relationships also play important roles in encouraging students to develop productive learning behaviors and achieve better academic outcomes (Aziz & Riyanto, 2025).

Although previous studies have confirmed the importance of family, school, and community environments, most of them examined these factors separately or focused only on one or two dimensions of the educational environment. Consequently, the interaction and combined contribution of these three educational environments toward students' learning achievement have not been sufficiently explored, particularly at the elementary school level. Moreover, many previous studies were conducted in different educational contexts, such as junior or senior high schools, making it difficult to generalize their findings to elementary education, where students' learning characteristics and environmental dependence differ considerably (Ratunguri et al., 2022).

This limitation indicates the need for further investigation that simultaneously examines family, school, and community environments within a single analytical model. Investigating these three dimensions together is expected to provide a more comprehensive understanding of how educational environments collectively relate to students' learning achievement. Such an approach also enables the identification of the relative contribution of each environmental dimension while considering the presence of the others (Pisba & Lismawati, 2024)

The necessity of this study is further supported by preliminary observations conducted at SDN Batu Ampar 10 PG. Based on school records, approximately 38% of Grade V students did not achieve the Minimum Mastery Criteria (KKM) in several core subjects during the previous semester. Initial discussions with teachers indicated that students demonstrate varying levels of learning achievement despite receiving similar classroom instruction. Teachers also observed differences in parental involvement, home learning support, peer interactions, and community learning culture surrounding the students. These variations suggest that students' learning achievement may not solely depend on classroom instruction but is also associated with broader educational environments experienced both inside and outside school. Therefore, empirical evidence is needed to better understand the relationship between these environmental factors and students' learning achievement in the context of SDN Batu Ampar 10 PG (Hanipah et al., 2022)

Unlike previous studies that predominantly focused on individual environmental factors, this study simultaneously investigates the relationships between family, school, and community environments and students' learning achievement using a multiple linear regression approach. By integrating these three educational environments within a single analytical framework, this study provides contextual empirical evidence regarding the combined contribution of educational environments to elementary school students' academic achievement. The findings are expected to enrich the literature on educational environments while providing practical recommendations for strengthening collaboration among parents, schools, and communities to support students' academic success (Agustina, 2021).

Based on the foregoing discussion, this study aims to examine the relationships between family environment, school environment, and community environment and students' learning achievement at SDN Batu Ampar 10 PG. The results are expected to contribute both theoretically to the development of educational research and practically to the design of collaborative strategies for improving learning achievement through supportive educational environments (Maulina & Ghofur, 2023).

The novelty of this study does not lie in proposing a new educational theory but in integrating family, school, and community environments within a single analytical framework using multiple linear regression at the elementary school level. Unlike previous studies that examined these environmental dimensions separately, this study evaluates their simultaneous relationships with students' learning achievement. This integrated approach provides more comprehensive empirical evidence regarding the relative contribution of each educational environment and offers practical implications for strengthening collaboration among parents, schools, and communities in improving students' academic achievement (Ole & Dipan, 2023).

Based on the theoretical perspectives and empirical findings discussed previously, students' learning achievement is assumed to be associated with multiple educational environments that interact throughout the learning process. Family, school, and community environments represent complementary educational contexts that provide students with academic support, learning experiences, motivation, discipline, and social interaction. These environmental dimensions are expected to contribute collectively to students' learning achievement rather than functioning independently. Therefore, examining the three educational environments simultaneously provides a more comprehensive understanding of factors associated with students' academic performance (Manullang & Silitonga, 2022)

To illustrate the theoretical relationships examined in this study, a conceptual framework was developed based on educational environment theory and previous empirical studies. The framework proposes that family environment, school environment, and community environment function as independent variables, while students' learning achievement serves as the dependent variable. The proposed relationships are illustrated in Figure 1.

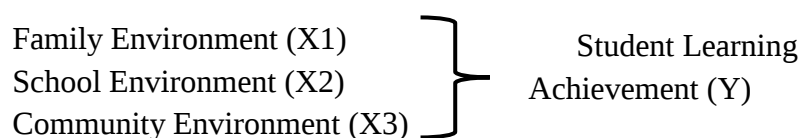


Figure 1 illustrates the conceptual model proposed in this study. The model assumes that family environment, school environment, and community environment are statistically associated with students' learning achievement. The family environment contributes through parental attention, learning supervision, educational support, and the provision of learning facilities. The school environment contributes through

instructional quality, teacher support, classroom climate, and educational facilities, whereas the community environment contributes through peer interaction, neighborhood learning culture, and social support. The simultaneous examination of these three educational environments is expected to provide a more comprehensive explanation of variations in students' learning achievement than examining each environmental factor separately (Pisba et al., 2024)

Based on the conceptual framework, this study proposes the following research hypotheses:

H1: Family environment is significantly associated with students' learning achievement.

H2: School environment is significantly associated with students' learning achievement.

H3: Community environment is significantly associated with students' learning achievement.

H4: Family environment, school environment, and community environment are simultaneously associated with students' learning achievement.

METHODS

Research Design and Participants

This study employed a quantitative research approach using a cross-sectional survey design to examine the relationships between family environment (X1), school environment (X2), community environment (X3), and students' learning achievement (Y) at SDN Batu Ampar 10 PG. A survey design was selected because it enables the collection of standardized data from a relatively large number of respondents within a single period, making it appropriate for examining statistical relationships among multiple variables while minimizing time and resource constraints. Compared with experimental or longitudinal quantitative designs, the survey approach is more suitable because the study did not aim to manipulate variables or observe changes over time but rather to investigate naturally occurring relationships among educational environments and learning achievement.

The study was conducted during the 2025/2026 academic year at SDN Batu Ampar 10 PG. The target population consisted of all students who fulfilled the inclusion criteria established by the researcher. A total of 67 students participated in the study and were selected using probability sampling through a simple random sampling technique. This sampling technique ensured that every member of the population had an equal probability of being selected, thereby minimizing selection bias and improving the representativeness of the sample.

The participants consisted of male and female students enrolled in the upper elementary grades. They represented diverse academic abilities and educational backgrounds within the school population. Since all participants were drawn from the same public elementary school, they shared relatively similar educational facilities and

curriculum implementation, although differences in family support and community learning environments were expected to vary among students. These characteristics were considered appropriate for examining the relationships between educational environments and students' learning achievement.

total of 67 students participated in this study. The participants were selected using probability sampling through a simple random sampling technique. Of the total participants, 37 students (55.2%) were female and 30 students (44.8%) were male. The respondents consisted of 34 Grade V students (50.7%) and 33 Grade VI students (49.3%). These demographic characteristics indicate that the sample adequately represents upper-grade elementary students at SDN Batu Ampar 10 PG.

Table 1. Demographic Characteristics of Participants

Characteristics	Category	N	%
Gender	Male	30	44.8
	Female	37	55.2
Grade Level	Grade V	34	50.7
	Grade VI	33	49.3

Instruments and Data Collection Procedures

Data were collected using a structured closed-ended questionnaire based on a four-point Likert scale consisting of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). A four-point scale was selected to avoid neutral responses and encourage respondents to express a clear opinion regarding each statement (Syahroni, 2022).

The questionnaire was developed through several stages. First, the indicators of each variable were identified from relevant educational theories and previous empirical studies. Second, questionnaire items were constructed based on these indicators. Third, the draft instrument was reviewed by experts in educational research and educational measurement to evaluate its content relevance, clarity, and appropriateness. Revisions were made based on the experts' recommendations before the questionnaire was administered to the respondents. Finally, a pilot test was conducted to examine the validity and reliability of the instrument (Muhajirin et al., 2024).

The family environment variable was measured using indicators of parental attention, learning supervision, learning support, provision of learning facilities, and study habits at home. The school environment variable consisted of learning methods, teacher instructional quality, learning facilities, classroom atmosphere, and the utilization of instructional media. The community environment variable included neighborhood support, peer influence, community learning conditions, community-based learning motivation, and social habits supporting education. Learning achievement was measured through indicators of students' ability to understand learning materials, retain information, explain concepts, answer questions correctly, and demonstrate academic performance (Syahrizal & Jailani, 2023).

The questionnaire consisted of 20 items, with five items representing each research variable. Instrument validity was examined using the Pearson Product-Moment correlation coefficient, while reliability was evaluated using Cronbach's Alpha. Items with correlation coefficients exceeding the critical value at the 5% significance level were considered valid, whereas Cronbach's Alpha values greater than 0.70 indicated acceptable internal consistency (Debataraja et al., 2024).

Before data collection, permission was obtained from the principal of SDN Batu Ampar 10 PG. Respondents received an explanation regarding the objectives of the study, questionnaire procedures, and their rights as participants before completing the questionnaire (Syahroni, 2022)

Data Analysis Techniques and Ethical Considerations

The collected data were analyzed using Statistical Package for the Social Sciences (SPSS). Descriptive statistics were first employed to summarize respondents' characteristics and research variables. Subsequently, prerequisite tests consisting of normality, multicollinearity, and heteroscedasticity tests were performed to ensure that the assumptions required for multiple linear regression analysis were satisfied (Anisah et al., 2021).

Multiple linear regression analysis was then conducted to examine the relationships between family environment, school environment, community environment, and students' learning achievement. Partial relationships were evaluated using the t-test, whereas the simultaneous relationship among all independent variables was examined using the F-test. The coefficient of determination (R^2) was calculated to determine the proportion of variance in students' learning achievement explained collectively by the three educational environment variables (Subhaktiyasa et al., 2025). Statistical significance was determined at the 5% significance level ($p < 0.05$).

Ethical approval for conducting the research was obtained from the school administration before data collection. Participation was entirely voluntary, and respondents were informed about the purpose of the research, confidentiality procedures, and their right to decline participation without consequences. To protect participants' privacy, no personal identifying information was recorded, and all collected data were used exclusively for academic research purposes (Hanipah et al., 2022).

RESULTS AND DISCUSSIN

Results

Validity Test

Table 2. Results of Validity Test Analysis

Variable	Sig.2(tailed)
X1.1	.000
X1.2	.000

X1.3	.000
X1.4	.000
X1.5	.000
X2.1	.000
X2.2	.000
X2.3	.000
X2.4	.000
X2.5	.000
X3.1	.000
X3.2	.000
X3.3	.000
X3.4	.000
X3.5	.000
Y.1	.000
Y.2	.000
Y.3	.000
Y.4	.000
Y.5	.000

The results of the validity test showed that all statement items in the variables of family environment (X1), school environment (X2), community environment (X3), and learning achievement (Y) met the validity criteria. Each statement item has an item-total correlation value (calculated r) that is greater than the r -value of the table at a significance level of 5%, so that all instruments are declared to be able to measure the construct being studied precisely. In the family environment variable, for example, the correlation value of the item ranges from the strong to very strong category, which indicates that each indicator has a good relationship with the variable it represents. This condition indicates that the instrument used is in accordance with the theoretical concepts underlying the research, namely the family environment, school environment, community environment, and student learning achievement (Anggraini et al., 2022).

The high validity of the instrument showed that the statements given to the respondents were truly able to represent the environmental conditions experienced by the students. In the family environment variable, indicators such as parental supervision, learning support, assistance in doing assignments, and provision of learning needs have proven to be relevant in describing the condition of the family environment. Similarly, in the variables of the school environment and the community environment, all items were able to explain the aspects that were the focus of the research. Thus, the instrument used has qualified as a good research measuring tool (Amalia et al., 2022).

Reliability Test

Table 3. Reliability Test Analysis Results

Variable	Cronbach's Alpha	Items
X1	.776	5

X2	.829	5
X3	.858	5
Y.5	.846	5

In addition to validity, the results of the reliability test showed that all variables had a Cronbach's Alpha value that was above the minimum limit of 0.70. This shows that the research instrument has a good level of internal consistency. High reliability means that respondents' answers to items in a single variable tend to be stable and consistent in measuring the same construct. Thus, the data obtained through the questionnaire can be trusted and is worth using for further analysis. These results also strengthen the quality of the research instruments so that the findings obtained have a high level of reliability (Anggraini et al., 2022).

Classic Assumption Test

Before multiple linear regression analysis was carried out, the research data was first tested through a series of classical assumption tests which included normality tests, multicollinearity tests, and heteroscedasticity tests.

Table 4. Results of the Normality Test

		Unstandardized
N		567
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1,45724462
Most Extreme Differences	Absolute	.082
	Positive	.042
	Negative	-.082
Test Statistic		.082
Asymp. Sig.(2-tailed)		.200 ^{c,d}

The results of the normality test showed that the research data was distributed normally. This condition indicates that the residual regression model has met the assumption of normality so that the regression model can be used to test the hypothesis. Normal data distribution is an important requirement in regression analysis because it can produce unbiased and efficient parameter estimation (Amalia et al., 2022).

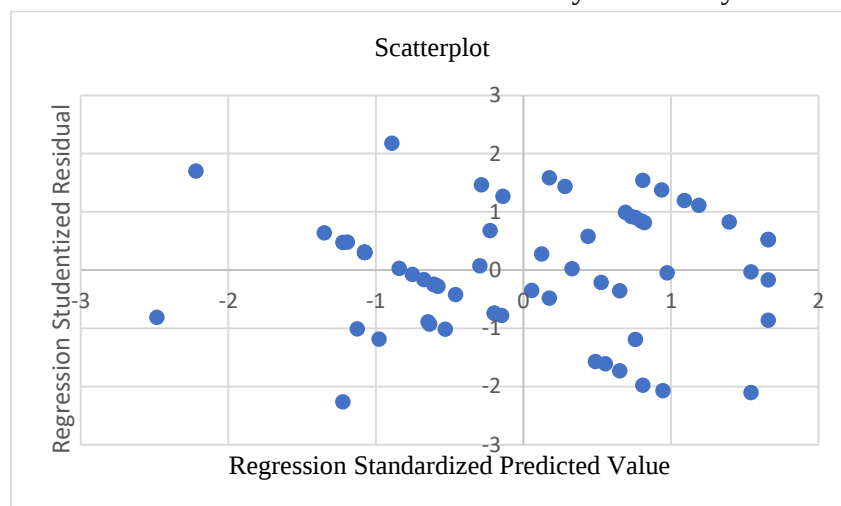
Table 5. Results of Multicollinearity Test Analysis

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients Beta	1	Sig.	Tolerance	VIF
Constant	.489	1.867		.262	.794		
Family environment	.201	.111	.179	1.815	.074	.685	1.461
School environment	.486	.101	.478	4.830	.000	.681	1.468

Community environment	.251	.108	.263	2.	1.910
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Furthermore, the results of the multicollinearity test showed that there was no too strong relationship between independent variables. This is indicated by the Tolerance value which is above 0.10 and the Variance Inflation Factor (VIF) value which is below 10. Thus, the variables of the family environment, school environment, and community environment have different contributions in explaining the variation in student learning achievement. The absence of multicollinearity suggests that each independent variable can be analyzed independently without causing distortion to the regression model (Subhaktiyasa et al., 2025).

Table 6. Results of Heteroscedasticity Test Analysis



In the heteroscedasticity test, the results of the analysis showed that there were no symptoms of heteroscedasticity in the research model. That is, residual variance tends to be constant across the prediction levels of independent variables. This condition suggests that the regression model meets the assumption of homocedasticity and can be used to generate accurate estimates. The fulfillment of all these classical assumptions indicates that the regression model used in the study has met the statistical requirements so that the results of hypothesis testing can be trusted and interpreted scientifically (Hutagaol, 2025).

T test (Partial Influence)

Table 7. Results of the Analysis of the t Test

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	1	Sig.
			Beta		

Constant	.489	1.867		.262	.794
Lingkungan Keluarga	.201	.111	.179	1.815	.074
Lingkungan Sekolah	.486	.101	.478	4.830	.000
Lingkungan Masyarakat	.251	.108	.263	2.332	.023

The results of the t-test showed that the family environment variable (X1) had a positive and significant effect on student learning achievement. These findings show that the better the family environment that students have, the higher the learning achievement achieved. Parental support in the form of learning supervision, motivation, provision of learning facilities, and assistance in completing tasks has been proven to improve student learning outcomes. These findings are in line with the theory of education which states that the family is the first and main educational environment that has a great influence on children's academic development (Nasar et al., 2024).

The school environment variable (X2) also showed a positive and significant influence on student learning achievement. A conducive school environment, adequate learning facilities, attractive learning methods, and good relationships between teachers and students are important factors in improving learning achievement. Schools that are able to create a comfortable learning atmosphere will encourage students to be more active in the learning process. These findings reinforce the view that school is an external factor that has a strategic role in improving the quality of student learning outcomes (Basuki & Mufidah, 2023).

Meanwhile, the community environment variable (X3) has also been proven to have a positive effect on student learning achievement. A community environment that supports education, positive peer influence, and conducive social conditions can increase students' motivation and enthusiasm for learning. These findings show that the educational process does not only take place in the family and school environment, but is also influenced by students' social interactions in daily life. Thus, the success of student learning is the result of the interaction of various environments that support each other (Fania & Handayani, 2024).

F Test (Simultaneous Influence)

Table 8. Results of F Test Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	193.954	3	64.655	29.062	.000
Residual	140.155	63	2.225		
Total	334.119	66			

The results of the F test show that the family environment, school environment, and community environment simultaneously have a significant effect on student learning achievement. A significance value of less than 0.05 indicates that the regression model used is able to explain the relationship between independent variables and dependent variables as a whole. These findings indicate that these three environmental variables together contribute to the improvement of student learning achievement (Subhaktiyasa et al., 2025).

This result is in accordance with the theory of educational ecology which explains that the development and learning success of students are influenced by various environmental systems that interact with each other. The family environment provides the basis for the formation of character and learning habits, the school environment provides a formal learning experience, while the community environment reinforces the social values that support education. Therefore, improving student learning achievement cannot be done only through one environment, but requires synergy between families, schools, and communities (Hutagaol, 2025).

Regression Equation (Y)

Table 9. Results of Multiple Linear Regression Test Analysis

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients Beta	1	Sig.
Constant	.489	1.867		.262	.794
Lingkungan Keluarga	.201	.111	.179	1.815	.074
Lingkungan Sekolah	.486	.101	.478	4.830	.000
Lingkungan Masyarakat	.251	.108	.263	2.332	.023

Based on the results of multiple linear regression analysis, a regression equation was obtained that showed that all regression coefficients of independent variables had positive values. This means that any improvement in the quality of the family environment, school environment, and community environment will be followed by an increase in student learning achievement. The positive regression coefficient shows an equivalence relationship between the independent variable and the bound variable (Nasar et al., 2024).

The meaning of the regression equation is that changes in the student's learning environment have a direct impact on changes in learning achievement. The better the support that students receive from their families, the more conducive the school environment, and the more positive the community environment, the higher the likelihood of students achieving optimal learning achievements. These results show that

environmental factors are important components that need to be considered in efforts to improve the quality of education (Pamungkasih, 2023).

Coefficient of Determination Test (R^2)

Table 10. Determination Test (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.762	.581	.561	1.492

The results of the determination coefficient (R^2) test showed that the family, school environment, and community environment were able to explain most of the variation in student learning achievement. The value of R^2 indicates how much the three independent variables contribute in explaining changes in the dependent variables. The greater the R^2 value obtained, the greater the ability of the research model to explain students' learning achievements (Mustofani & Hariyani, 2022).

However, there is still some variation in learning achievement that is influenced by other factors outside the research model, such as intrinsic motivation, learning interest, intelligence, psychological conditions, individual learning methods, and other personal factors. Therefore, the results of this study show that the family environment, school environment, and community environment are important factors in improving learning achievement, but not the only factor that determines students' academic success (Fredy et al., 2022).

Overall, the results of the study prove that the family environment, school environment, and community environment have a significant role in shaping student learning achievement. These findings imply that improving the quality of education needs to be done through close cooperation between parents, schools, and the community in order to create an educational environment that supports the academic development of students optimally (Khairunnisa & Rigianti, 2023).

Discussion

This study examined the relationships between family environment, school environment, and community environment and students' learning achievement at SDN Batu Ampar 10 PG. Overall, the findings indicate that the educational environment plays an important role in students' learning achievement. However, the contribution of each environmental dimension differs. While school environment and community environment were significantly associated with learning achievement, family environment did not demonstrate a statistically significant relationship when analyzed together with the other independent variables (Khairunnisa & Rigianti, 2023).

The descriptive analysis revealed that most students perceived their family, school, and community environments positively. Students generally agreed that their parents provided learning support, teachers created a conducive classroom atmosphere,

and the surrounding community encouraged positive learning behaviors. These findings suggest that students experienced relatively supportive educational environments across the three dimensions. Nevertheless, positive perceptions alone do not necessarily translate into statistically significant relationships with learning achievement, indicating that the relative contribution of each environment may differ when examined simultaneously (Fredy et al., 2022).

One notable finding of this study is that the family environment was positively associated with learning achievement but did not reach statistical significance. Although parental attention, learning supervision, and learning support remain important components of children's educational development, the present findings suggest that these factors were not the strongest predictors of learning achievement within the research context after controlling for school and community environments. One possible explanation is that the respondents were upper elementary school students who spend a considerable amount of time at school and increasingly interact with peers and the surrounding community. Consequently, learning experiences obtained outside the family may exert greater influence on academic achievement (Hernama & Maharani, 2023), (Ratunguri et al., 2022).

This finding differs from several previous studies, including (Ratunguri et al., 2022), which reported that family environment significantly influenced students' academic achievement. The inconsistency may be attributed to differences in participant characteristics, school contexts, parental educational backgrounds, and socio-economic conditions. Furthermore, the relatively homogeneous family characteristics among students at SDN Batu Ampar 10 PG may have reduced the variability required to detect a statistically significant relationship. Therefore, the present finding suggests that the influence of family environment may vary across educational settings and should not be generalized without considering contextual factors (Aditya et al., 2021).

In contrast, the school environment demonstrated the strongest relationship with students' learning achievement. This finding indicates that teacher instructional practices, learning facilities, classroom climate, and the quality of educational services provided by the school remain central determinants of students' academic development. Since elementary school students spend a substantial proportion of their daily activities in school, supportive learning environments are likely to encourage active participation, strengthen learning motivation, and improve academic performance. These findings are consistent with previous studies conducted by (Hanipah et al., 2022), (Rochmah & Kurniawan, 2022) which emphasized that positive school environments contribute significantly to students' learning achievement.

The community environment was also found to be significantly associated with learning achievement. Students who lived in neighborhoods characterized by supportive peer relationships and positive learning cultures tended to report higher learning achievement. This finding reinforces the perspective that learning extends beyond formal educational institutions. Community support, positive peer interaction, and

favorable social environments provide additional opportunities for students to reinforce learning behaviors acquired at school. The result supports previous findings reported by (Maulina & Ghofur, 2023), highlighting the importance of community participation in supporting students' educational development.

The simultaneous regression analysis further demonstrated that family environment, school environment, and community environment collectively explained a substantial proportion of the variance in students' learning achievement. Although family environment was not statistically significant individually, its inclusion within the regression model contributed to explaining students' learning achievement alongside school and community environments. These findings indicate that learning achievement should be understood as a multidimensional educational outcome influenced by interactions among multiple learning environments rather than by a single environmental factor (Syahrizal & Jailani, 2023).

From a theoretical perspective, this study contributes to educational research by providing empirical evidence that the relative contribution of educational environments may differ when examined simultaneously using a multiple regression model. Previous studies have predominantly investigated family, school, or community environments separately, whereas the present study integrates these three educational contexts within a single analytical framework. The findings suggest that the school environment represents the strongest educational context associated with learning achievement in the present setting, while the influence of family environment may depend on contextual characteristics of students and schools. Consequently, this study extends previous literature by demonstrating that the contribution of educational environments should be interpreted as context-dependent rather than universally consistent (Permana et al., 2024), (Hanipah et al., 2022).

From a practical perspective, the findings highlight the importance of collaborative efforts among families, schools, and communities to support students' academic achievement. Schools should continue improving instructional quality, learning facilities, and classroom climate, while communities should foster positive peer interactions and supportive learning environments. Although family environment was not statistically significant in this study, parental involvement remains essential for encouraging learning motivation and establishing positive study habits. Therefore, strengthening collaboration among these educational stakeholders remains an important strategy for improving students' learning achievement (Amrulloh et al., 2024), (Rochmah & Kurniawan, 2022).

This study has several limitations. First, the study involved only 67 students from a single public elementary school, which may limit the generalizability of the findings to other educational settings. Second, the cross-sectional survey design only captures relationships among variables at one point in time and therefore does not permit causal conclusions. Third, the use of self-reported questionnaires may introduce response bias because students' perceptions may not fully reflect actual educational

conditions. Finally, demographic variables such as parental educational background and socio-economic status were not included in the regression model, although these factors may also influence students' learning achievement (Ali et al., 2023), (Khairunnisa & Rigianti, 2023).

Future studies are therefore encouraged to involve larger samples from multiple schools, incorporate additional contextual variables, and employ longitudinal or mixed-methods designs to obtain a more comprehensive understanding of how educational environments contribute to students' learning achievement over time (Suwarni, 2023), (Lestari et al., 2023).

CONCLUSION

This study demonstrates that students' learning achievement is associated with multiple educational environments, with the school and community environments showing significant positive relationships, while the family environment, despite its positive contribution, was not statistically significant when examined alongside the other variables. Collectively, these three environments explained a substantial proportion of the variance in learning achievement, highlighting the importance of considering educational contexts simultaneously rather than independently. The findings contribute to educational research by extending previous studies that primarily examined these environments separately and emphasize that their relative contributions may differ within a unified analytical model. Practically, the results underscore the need for stronger collaboration among schools, families, and communities, with particular emphasis on enhancing school quality and community support to improve students' academic achievement. As this study employed a cross-sectional design, the findings should be interpreted as statistical associations rather than causal relationships. Future research should involve larger and more diverse samples, incorporate additional contextual variables such as parental education and socio-economic status, and apply longitudinal or mixed-methods approaches to provide a more comprehensive understanding of the factors associated with students' learning achievement.

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