

The Relationship Between Learning Environment and Learning Concentration

Sofuroh Rosyidah^{1*}, Sarah Wulan¹, Zahrati Mansoer²

¹Primary Teacher Education, STKIP Kusuma Negara Jakarta, Indonesia

²Childhood Teacher Education, STKIP Kusuma Negara Jakarta, Indonesia

[*rsosofuroh@gmail.com](mailto:rsosofuroh@gmail.com)

Abstract

This study aims to determine the relationship between the learning environment and students' concentration in learning. The research method used is quantitative, and this study was conducted at SDIT Al Hikmah Cimanggis, Depok. Sampling was carried out using cluster random sampling techniques, using a questionnaire instrument. The analysis method employed is the Product Moment correlation test. The results of the analysis show a correlation coefficient (r) of 0.660, indicating a strong positive relationship between the two variables. Additionally, the coefficient of determination (r^2) of 0.435 indicates that 43.5% of the variation in learning concentration can be explained by the learning environment. Hypothesis testing was conducted to assess the significance of this relationship, where the calculated t value of 7.340 is greater than the t table (2.648) at a significance level of 0.01, with a p -value of 0.000. These results support the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_1), concluding that there is a significant positive relationship between the learning environment and learning concentration. These findings have important implications for the development of more effective learning strategies in educational settings.

Keywords: learning, environment study, concentration Study.

1 INTRODUCTION

The success of the teaching and learning process is not only determined by internal factors within the student but is also influenced by external factors, one of which is the learning environment. Because the environment encompasses everything around us, it has a significant impact on ourselves (Nurdin & Munzir, 2019). A conducive learning environment can help students improve their concentration in studying and achieve optimal learning outcomes (Rahman, 2022, Prabowo, et al 2023). Therefore, a conducive environment serves as the backbone and driving factor that can provide a unique appeal for the learning process; conversely, an unpleasant environment can lead to boredom (Tambunan, Ardiansyah, & Kurniawan, 2020). Learning environment, students have equal opportunities to form meaningful relationships within that context (Harjali, 2016). A positive learning environment, characterized by good support and interaction between students and teachers, as well as harmonious interactions with peers, can also enhance students' motivation and concentration in learning.

Learning concentration is the ability of students to focus their attention on lessons so that they can understand the material being studied well (Deswanti, et al, 2020, Rahman, 2022). According to Slameto (2020), concentration is the focus of the mind on a particular thing while ignoring all other unrelated matters. In learning, concentration means directing the mind toward a subject while disregarding all irrelevant matters. It can be said that learning concentration is the ability to focus attention on lessons, where this focus is directed at both the content of the learning materials and the process of acquiring them (Riinawati, 2021). High learning concentration will assist students in absorbing and understanding information, as well as completing tasks effectively.

However, in practice, many students struggle to concentrate while studying. One factor that can affect students' learning concentration is the learning environment. A conducive, comfortable, and supportive learning environment can help students focus and concentrate better on receiving lessons (Wardani et al., 2024). Conversely, a less conducive learning environment, such as a noisy classroom, uncomfortable room temperature, or inadequate learning facilities, can disrupt students' concentration. According to Nurhidayah et al. (2021), a good learning environment includes physical, social, and psychological factors that play an essential role in enhancing students' concentration. Additionally, research by Rahayu and Adnyani (2020) shows that environmental factors such as lighting, ventilation, and seating arrangements in the classroom affect students' comfort levels in learning, which directly impacts their ability to concentrate. Therefore, a supportive learning environment involves not only physical aspects but also order and social interaction in the classroom, providing students with a sense of safety and comfort to focus better on learning.

During the Covid-19 pandemic, the learning process at SDIT Al Hikmah Cimanggis Depok, particularly for fourth-grade students, was conducted through distance learning (PJJ) using online media such as Google Meet. In the implementation of PJJ, the researchers observed several learning sessions and found indications that students lacked focus or concentration when the teacher explained the material through PowerPoint slides. Some indications of students' lack of learning concentration include: students' gazes wandering around, not focusing on the teacher's explanation, students needing to repeat information when the teacher assigns tasks, and students conversing outside the discussion of the material in the Google Meet chat column during learning. This condition is suspected to be related to the students' learning environment during PJJ. A non-conductive learning environment, such as a noisy home atmosphere, other distractions around the students, lack of direct interaction between teachers and students, or between students and peers, or insufficient learning facilities, can affect students' concentration during learning. An ideal learning environment should support students in being more focused and concentrated while receiving learning materials.

In this regard, environmental studies are an important factor for students in teaching and learning activities. Research conducted at SDN Nglorog 3 shows the importance of a conducive learning environment in improving students' academic achievements at the elementary school level (Wardani et al., 2024). Additionally, other studies have revealed a significant influence between the learning environment and the level of students' learning concentration at MAN 2 Palembang (Noviati et al., 2019). Meanwhile, research by Parlin Tambunan et al. shows a significant influence between the learning environment atmosphere and students' learning concentration in specific subjects (Tambunan, Ardiansyah, & Kurniawan, 2020). Generally, research also finds that the condition of the learning environment and students' learning concentration will impact their learning outcomes (Margiathi et al., 2023). Several previous studies have shown a relationship between the learning environment and students' learning concentration. Based on this description, the objective of this study is to determine the relationship between the learning environment and learning concentration.

2 RESEARCH METHODS

The study uses a quantitative approach through correlational techniques and quantitative descriptive methods (Atmazaki et.al., 2023; Dewi et.al., 2021; Utami et.al., 2024). Its aim is to determine the relationship between variable X and variable Y, specifically to understand the Relationship between the learning environment and learning concentration. The research design can be seen Figure 1.



Figure 1. The Relationship Between the Learning Environment and Learning Concentration

X : Independent Variable (Learning Environment)

Y : Dependent Variable (Learning Concentration)

➡ : Connection

This study was conducted at SDIT Al Hikmah Cimanggis, Depok, during the academic year 2021/2022, specifically in March 2022. The population in this study consisted of all fourth-grade students at SDIT Al Hikmah Cimanggis, Depok, with a sample of 73 students obtained through the Random Sampling technique. The data collected in this study includes environmental data as variable X and concentration data as variable Y. The data were measured using a questionnaire instrument designed with a Likert scale consisting of four response options: SS (Strongly Agree), S (Agree), TS (Disagree), and STS (Strongly Disagree).

3 RESULTS AND DISCUSSION

Based on the data obtained from the questionnaire distributed to fourth-grade students at SDIT Al Hikmah Cimanggis, Depok, the descriptive analysis includes the mean, median, mode, standard deviation, maximum value, and minimum value.

Table 1. Descriptive Analysis Results

	Environment Study	Concentration Study
Mean	45.48	44.64
Median	47.00	44.00
Mode	47	44
Standard Deviation	7.612	5.363
Range	36	21
Maximum Value	59	55
Minimum Value	23	34

Descriptive analysis results in Table 1 is used as reference in see distribution frequency and grouping data into a number of Category. Distribution frequency can seen with help distribution interval class. Determination amount interval class using the formula $k=1+(3.3(\log N))$ is $k=1+(3.3(\log 73)) = 7.15$ and rounded up to on to 8. While long interval class obtained from formula $I = \frac{range}{k}$ and the results obtained are 5.04 for the learning environment variable (X) and 2.94 for the learning concentration variable (Y). The number of interval classes for the learning environment variable (X) is 8 and the length of the interval class is 5.04. It is known that the maximum value of variable X is 59 and the minimum value is 23. While the mean of variable X is 45.48 and the standard deviation is 7.61. Based on this analysis, the results of the frequency distribution and categorization of variable X data can be seen in Table 2 and Table 3 respectively.

Table 2. Distribution Frequency Variables Environment Study

Class	Class Interval	Frequency
1	23-28	3
2	29-33	3
3	34-38	5
4	39-43	11
5	44-48	27
6	49-53	13
7	54-58	10
8	59-63	1
Total		73

Table 2 shows distribution frequency lowest a total of 1 respondent in the interval 59-63, followed by the same frequency in 2 interval classes, namely 3 respondents each in the intervals 23-28 and 29-33. Frequency highest as many as 27 respondents found in the interval 44-48 and below as many as 13 respondents is in the interval 49-53. The data furthermore categorized into 3 categories trend that is high, medium, and low . Percentage highest is in the category is. It is known there is as many as 53 respondents (73%) in the category moderate, 11 respondents (15%) in the category high and 9 respondents (12%) in the category low. Then the result categorization show that student evaluate quality environment Study they including currently until high. Categorization Results the found in table 3.

Table 3. Categorization Variables Environment Study

Category	Score Interval	Frequency	Percentage (%)
Tall	$53.09 \leq X$	11	15%
Currently	$37.87 \leq X < 53.09$	53	73%
Low	$X < 37.87$	9	12%
Amount		73	100%

Variables furthermore is concentration study (Y). Amount class the same as variable X is 8 while long interval class for variable Y is 2.94. It is known mark maximum variable Y is 55 and the value The minimum is 34. While the mean of the Y variable is 44.64 and the standard deviation of 5.36.

Table 4. Distribution Frequency Variables Concentration Study

Class	Class Interval	Frequency
1	34-37	6
2	38-40	7
3	41-43	14
4	44-46	16
5	47-49	11
6	50-52	11
7	53-55	7
8	56-57	1

Class	Class Interval	Frequency
Total		73

Based on analysis said, then results distribution frequency and categorization of data on variable Y can see respectively in Table 4 and Table 5. Table 4 shows distribution frequency lowest a total of 1 respondent at interval 56-57, followed by the same frequency in 2 interval classes, namely 7 respondents each in the intervals 38-40 and 53-55. Frequency highest as many as 16 respondents found in the interval 44-46 and below as many as 14 respondents is in the interval 41-43.

The data furthermore categorized into 3 categories trend that is high, medium, and low . Known there is as many as 46 respondents (63%) in the category while, while category high and low own the same percentage namely 18% with frequency of each 13 respondents. So the results categorization show that concentration Study part big student is in the category medium. Categorization Results the found in table 5.

Table 5. Categorization Variables Concentration Study

Category	Score Interval	Frequency	Percentage (%)
Tall	50.00 $\leq$ X	13	18%
Currently	39.28 $\leq$ X < 50.00	46	63%
Low	X < 39.28	13	18%
Amount		73	100%

3.1 Testing Condition Data analysis

Normality test aiming for know whether residual values are normally distributed or no. The regression model used technique analysis in research This it is said Good If own residual values that are normally distributed. Testing normality use *Kolmogorov-Smirnov* Test calculated with IBM SPSS 24 program assistance. Decisions on normally distributed data are seen from mark significance (Sig.) must be bigger from 0.05. It is known mark significance from residual value of variable environment study and concentration Study of 0.200. The Sig. value has shown more value tall from 0.200 to can data be said normally distributed. Conditions first in the regression model namely the normality test has fulfilled. The results of the normality test can see in Table 6.

Table 6. Normality Test Results *Kolmogorov-Smirnov Test*

Unstandardized Residual	
N	73
Significance (Sig.)	0.200

Linearity test test linear relationship between the independent variable is concentration learning and variables dependent that is environment learning. Assumptions that must be fulfilled for regression models is connection linear between independent and dependent variables. The decision of the linear relationship can conclude with see mark Significance (Sig.) on *deviation from Linearity* that is must bigger of 0.05. Sig. value of *Deviation from Linearity* variable environment learn (X) with concentration learning (Y) of 0.917. The required Sig. value for state linear relationship of variables is bigger from 0.05. Then we can conclude that connection environment learning (X) against Concentration learning (Y) is linear and fulfilling condition for regression model analysis. Based on Table 7, the Sig. value of *Deviation from Linearity* variable environment learning (X) against concentration learning (Y) of 0.917. The required Sig. value for state linear relationship of variables is bigger from 0.05. Then we can concluded that connection environment learn (X) with Concentration learning (Y) is linear and fulfilling condition For regression model analysis.

Table 7. Linearity Test Results

Linearity Test		Deviation from Linearity	
		P	Sig.
Environment Study to Concentration Study	X to Y	0.05	0.917

Condition analysis regression requires data not own symptom heteroscedasticity. Heteroscedasticity test in study This use *Scatterplot*. Data that is not own symptom heteroscedasticity shown from distribution random dots, on the other hand If dot, dot, dot gather at a side just then the data is own symptom heteroscedasticity. Based on Figure 8 it is known that dot, dot, dot spread in a way random so that the data in study This No own symptom heteroscedasticity. In conclusion, the requirements for heteroscedasticity testing For regression model analysis has fulfilled. The results of the Scatterplot heteroscedasticity test can be seen in Figure 2.

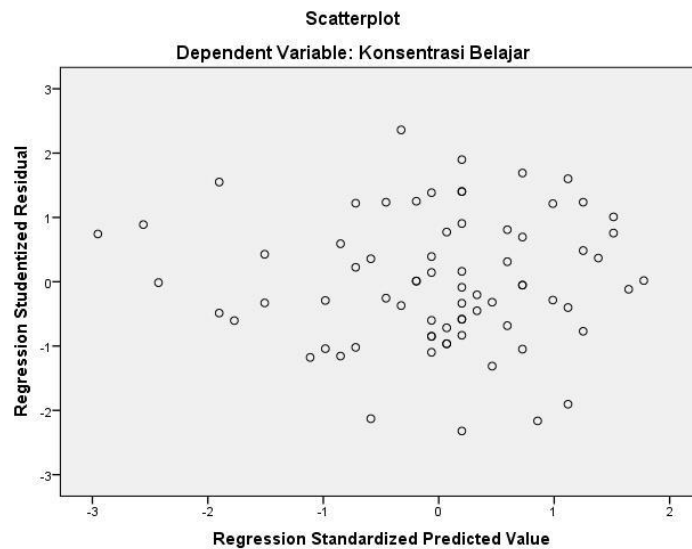


Figure 2. Scatterplot Heteroscedasticity Test Results

3.2 Testing Hypothesis

Variables in study This consists of from One environmental variable X study and one variable Y (concentration) learning. Analysis using the product moment correlation test was selected Because study This want to know connection variable X with variable Y. All condition for conducting a product moment correlation test has fulfilled namely distributed data normal, linear, and not own symptom heteroscedasticity. Furthermore, the product moment correlation test was carried out For test hypothesis that has been make yourself previously.

Table 8. Hypothesis Test Results

N	Variables	r (Coefficient Correlation)	r ² (Coefficient Determination)	t count	t table (α = 0.01)	Significance (p-value)
73	Environment Study vs. Concentration	0.660	0.435	7,340	2,648	0,000

Study

Based on Table 8 , the results correlation test *Product Moment* between environment study and concentration learn , found mark coefficient correlation (r) of 0.660. This value show existence connection positive enough strong between second variable mentioned, where the increase in Environment Study followed by an increase in Concentration Study . Coefficient determination (r^2) of 0.435 indicates that about 43.5% of variation in Concentration Study can explained by Environment Learn. To know significance or whether or not correlation obtained can seen in the " r " product moment. At level confidence level of 0.01 with $n=73$ was obtained $r_{hitung} > r_{tabel}$ namely r_{hitung} (0.660) and r_{tabel} (0.296), things This means H_0 rejected H_1 accepted and shown existence connection positive between environment Study with concentration Study.

Next, Level of significance connection second variable the obtained with t test count . T count used For evaluate how much far r count from zero (no There is relationship). In the example this , t count is 7,340 , which is calculated from r count and size sample $n = 73$. t table at level significance of 0.01 is 2.648. Because the calculated t (7.340) is far exceed t table (2.648), the result significant in a way statistics. This shows that connection between Environment Study And Concentration Study No only strong but also significant.

4 CONCLUSION

The results of the study indicate that there is a significant relationship between the learning environment and learning concentration in grade I V students of SDIT Al Hikmah Cimanggis Depok. The results of the analysis using the Product Moment correlation test showed a correlation coefficient value (r) of 0.660, which indicates a strong positive relationship between the two variables. In addition, the coefficient of determination (r^2) of 0.435 indicates that around 43.5% of the variation in learning concentration can be explained by the learning environment. Hypothesis testing conducted at a confidence level of 0.01 confirmed that H_0 was rejected and H_1 was accepted, indicating that improving the learning environment was positively correlated with improving learning concentration. The significance of the results was also seen from the t count which reached 7.340, far exceeding the t table (2.648), confirming that the relationship that was established was not only strong, but also statistically significant. These findings emphasize the importance of creating a conducive learning environment to improve student learning concentration, which in turn can support the achievement of optimal learning outcomes.

5 REFERENCES

- Atmazaki, Vioreza, N., Nabila, J., & Brillian, M. T. (2023). *Buku Ajar Metode Penelitian*. Pustaka Alur.
- Deswanti, I. A. P., Santosa, A. B., & William, N. (2020). Pengaruh ice breaking terhadap hasil belajar siswa sekolah dasar pada pembelajaran tematik. *TANGGAP: Jurnal Riset Dan Inovasi Pendidikan Dasar*, 1(1), 20-28.
- Dewi, R. E. T., Sudjoko, S., & Vioreza, N. (2021). Hubungan Antara Minat Belajar dengan Hasil Belajar Matematika Siswa. In *Prosiding Seminar Nasional Pendidikan STKIP Kusuma Negara III* (pp. 149-156).
- Harjali. (2016). *Membangun penataan lingkungan belajar yang kondusif studi fenomenologi pada sekolah menengah pertama di Ponorogo*. Ponorogo: STAIN Ponorogo Press.

- Margiathi, SA, Larian, O., Wulandari, R., Putri, ND, & Musyadad, VF (2023). (2023). *Dampak konsentrasi belajar terhadap hasil belajar peserta didik*. Jurnal Primary Edu, 1(1), 61–68.
- Noviati, R., Misdar, M., & Adib, HS (2019). Pengaruh lingkungan belajar terhadap tingkat konsentrasi belajar siswa pada mata pelajaran Akidah Akhlak di MAN 2 Palembang. *Jurnal PAI Raden Fatah*, 1(1), 1–20.
- Nurdin, & Munzir. (2019). *Pengaruh lingkungan belajar dan kesiapan belajar terhadap prestasi belajar ilmu pengetahuan sosial*. Jurnal Ilmiah Kependidikan, 6(3), 248.
- Nurhidayah, S., Suryani, L., & Wulandari, M. (2021). Lingkungan belajar yang kondusif dan dampaknya terhadap konsentrasi belajar siswa. *Jurnal Pendidikan dan Pembelajaran*, 6(1), 23–31
- Prabowo, R. A., Hita, I. P. A. D., Lubis, F. M., Patimah, S., Eskawida, E., & Siska, S. (2023). Pengaruh Motivasi Terhadap Hasil Belajar Dribbling Permainan Bola Basket. *Journal on Education*, 5(4), 12648–12658.
- Rahayu, T., & Adnyani, P. (2020). Faktor lingkungan belajar terhadap konsentrasi siswa di kelas. *Jurnal Penelitian Pendidikan*, 12(3), 215–225.
- Rahman, S. (2022). Pentingnya motivasi belajar dalam meningkatkan hasil belajar. In *Prosiding Seminar Nasional Pendidikan Dasar*.
- Riinawati. (2021). Hubungan konsentrasi belajar siswa terhadap prestasi belajar peserta didik pada masa pandemi covid-19 di sekolah dasar. *Jurnal ilmu pendidikan* 3(4), 2307.
- Slameto. (2020). *Belajar dan faktor-faktor yang mempengaruhi*. Jakarta: PT Rineka Cipta.
- Tambunan, P., Ardiansyah, MF, & Kurniawan, MG (2020). Pengaruh suasana lingkungan belajar terhadap konsentrasi belajar siswa dalam mata pelajaran produktif. *Jurnal PenSil*, 9(3), 165–171.
- Utami, P. P., Viozeza, N., Nugraheny, D. C., & Alghadari, F. (2024). The Influence of Responsibility on the Job Commitment of Public Elementary School Principals in East Jakarta. *Jurnal Ilmu Pendidikan (JIP) STKIP Kusuma Negara*, 16(1), 71–77.
- Utami, P. P., & Viozeza, N. (2021). Teacher Work Productivity in Senior High School. *International Journal of Instruction*, 14(1), 599–614.
- Wardani, IK, Nugroho, AC, Sabekti, M., Murtiyasa, B., & Setyaningsih, N. (2024). *Pengaruh lingkungan belajar terhadap hasil belajar pembelajaran matematika SDN Nglorog 3*. Jurnal Riset Dan Inovasi Pembelajaran, 4(1), 536.