CHAPTER IV

FINDING AND DISCUSSION

This chapter deals with the conclusion, implications of the research findings, and some suggestions regarding the findings for the impact of reading habits on the critical thinking of tenth-grade high school students.

A. **Finding**

This chapter investigated the correlation between students' reading habits and critical thinking using two instruments: a 30-item reading habit questionnaire where respondents described their actual practices, and a 12-question multiple-choice critical thinking test assessing reasoning, analysis, decision making, and problem-solving. The analysis included descriptive statistics for both variables and correlation analysis, with reading habits analyzed from questionnaire responses and critical thinking from test results. Data were processed using SPSS version 27, and the findings for both variables are presented below.:
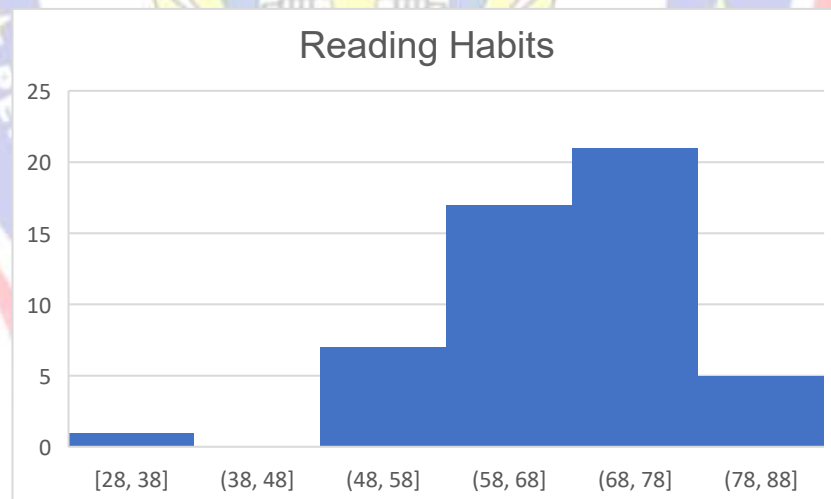
1. The Result of Students' Reading Habits

Statistical descriptive analysis was also carried out using SPSS 27.0 based on the questionnaire data. The following table statistical analysis of students' reading habits:

Table 4. 1 Descriptive Statistics of Students' Reading Habits

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
READING HABITS	51	28.00	88.00	67.9412	10.89479
Valid N (listwise)	51				

Analysis of the reading habits data for Grade X students at SMA Dharma Wanita 1 Gedangan shows scores ranging from a minimum of 28 to a maximum of 88, with a mean (average) score of 67.9 and a standard deviation of 10.89479. Based on this score range, the students are categorized as having good reading habits. The distribution of their reading habit scores is illustrated in the graph below.


2. The Result of Students' Critical Thinking

Based on the critical thinking test results in table 4.4, a statistical descriptive analysis has also been carried out using SPSS 27.0. The following table statistical analysis of the 4.3 critical thinking test

Table 4. 2 Descriptive Statistics of Students' Critical Thinking Test.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CRITICAL THINKING	51	10.00	100.00	55.4902	21.43023
Valid N (listwise)	51				

The test results show critical thinking scores for Class X students at SMA Dharma Wanita 1 Gedangan ranging from a minimum of 10 to a maximum of 100, with a mean of 55.49 and a standard deviation of 21.430. Based on this score interval, students' critical thinking is classified as fair, as illustrated in the graph below :
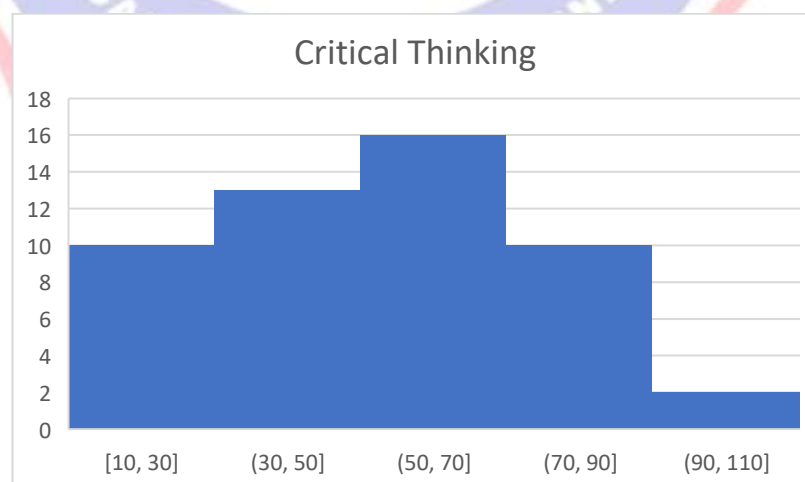
3. Normality & Linearity Test

    a. Normality Test

    Before conducting the product-moment correlation analysis, the researcher assessed data normality using the Kolmogorov-Smirnov test, selected due to the sample size exceeding 51 respondents. A significance value greater than 0.05 indicates a normal distribution. This analysis was performed with SPSS 27.0, and the resulting normality test statistics are presented in Table 4.4

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Table 4. 3 Normality Test Results

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One-Sample Kolmogorov-Smirnov Test

			READING HABITS	CRITICAL THINKING
N			51	51
Normal Parameters[a,b]	Mean		81.4902	55.4902
	Std. Deviation		13.08644	21.43023
Most Extreme Differences	Absolute		.113	.089
	Positive		.113	.079
	Negative		-.082	-.089
Test Statistic			.113	.089
Asymp. Sig. (2-tailed)[c]			.115	.200[e]
Monte Carlo Sig. (2-tailed)[d]	Sig.		.099	.381
	99% Confidence Interval	Lower Bound	.091	.368
		Upper Bound	.106	.393

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

e. This is a lower bound of the true significance.

Table 4.3 indicates that both variables met the assumption of normality, as the significance level for reading habits (0.115) and critical thinking (0.200) exceeded 0.05. This

confirms that the data distribution for students' reading habits and critical thinking was normal.

b. Linearity test

A linearity test was performed using SPSS 27.0 to assess whether the relationship between reading habits and reading test scores follows a linear pattern. The statistical output for this linearity analysis appears below.

Table 4. 4 Linearity Test Results

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
CRITICAL THINKING * READING HABITS	Between Groups	(Combined)	12514.828	29	431.546	.867	.644
		Linearity	1014.431	1	1014.431	2.039	.168
		Deviation from Linearity	11500.398	28	410.728	.826	.687
	Within Groups		10447.917	21	497.520		
	Total		22962.745	50			

Table 4.4 demonstrates a significance level of 0.644 for deviation from linearity, exceeding 0.05. This indicates a statistically significant linear correlation between students' reading habits and critical thinking.

4. Product Moment Analysis

The correlation test analysis method used is Pearson's Product-Moment Correlation. The product-moment correlation test results are shown in Table 4.5.

Table 4. 5 Pearson's Product-Moment Correlation Results

Correlations

		READING HABITS	CRITICAL THINKING
READING HABITS	Pearson Correlation	1	-.210
	Sig. (2-tailed)		.139
	N	51	51
CRITICAL THINKING	Pearson Correlation	-.210	1
	Sig. (2-tailed)	.139	
	N	51	51

The product-moment correlation analysis reveals a non-significant relationship between reading habits and critical thinking (sig 2-tailed = 0.139 > 0.05), indicating failure to reject the null hypothesis (H_0). The correlation coefficient (r = -0.210) reflects a low negative relationship, falling within the 0.20–0.399 interval for low correlation. This relationship is visually depicted in the scatter plot below.

Table 4. 6 Scatter Plot Correlation Results
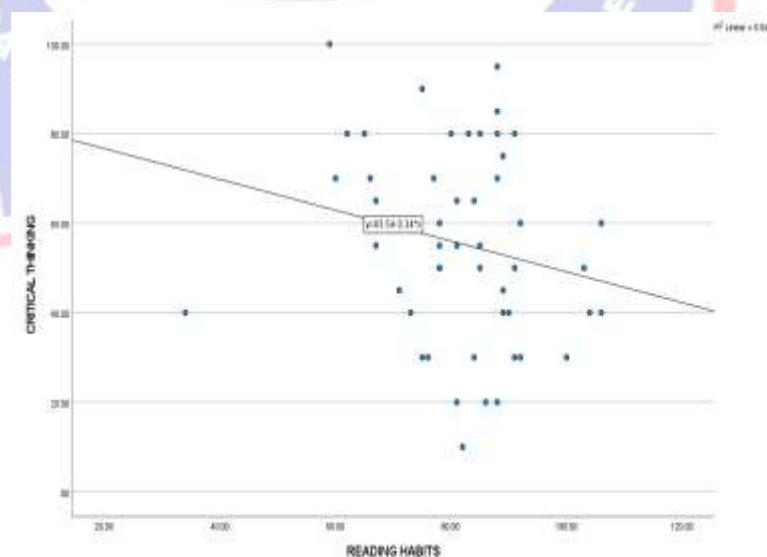
5. The Description of Students' Reading Habits and Critical Thinking

Based on the assessment below, the low correlation relationship between reading habits and critical thinking of students was described. Some students showed good reading habits, but their critical thinking was lacking, and vice versa. This finding strongly supported the correlation coefficient results above, which showed a negative and low relationship.

Table 4. 7 The Findings of Students' Reading Habits & Critical Thinking

CATEGORY	Reading Habits	Critical Thinking
POOR	2 Students	18 Students
FAIR	8 Students	17 Students
GOOD	36 Students	12 Students
EXCELLENT	5 Students	4 Students

Based on Table 4.7, Reading Habits are mostly in the good category (70.6% of students). Critical thinking is dominated by the poor (35.3% of students) and fair (33.3% of students) categories, indicating a need for significant improvement in analytical. Only 4 students (7.8%) achieved excellent in critical thinking, and the full results are in the section on appendix 3.

These instruments reinforced the earlier finding of a low negative correlation (r= -0.210) that is statistically nonsignificant (p = 0.139).

Despite most students having good reading habits, the wide variation in critical thinking scores (10–100) suggests that factors beyond reading habits, such as reading material quality, teaching methods, and discussion environments. For instance, Student No. 31 with poor reading habits (score: 49) achieved excellent critical thinking (score: 100), while Student No. 14, who reads good (score: 63), scored excellent in critical thinking (score: 90). This confirms that reading habits alone do not determine critical thinking ability. The low correlation (R^2 = 4.4%) and nonsignificance highlight the need to explore mediating variables (e.g., reading genres, teacher guidance) in future studies to unravel the complexity of this relationship.

B. Discussion

The researcher is interested in examining the correlation between the reading habits and critical thinking of tenth graders at SMA Darma Wanita 1 Sidoarjo. The respondents in this research are 51 students who were selected through a total sampling technique.

This study's key findings indicate tenth-grade students at SMA Dharma Wanita 1 Gedangan demonstrated reasonably good reading habits (mean = 67.94), though with notable individual variation their counterparts at SMA Dharma Wanita 1 Gedangan showed fair critical thinking in test (mean = 55.49), despite some higher-performing individuals; and statistical analysis revealed no significant correlation between these variables (r = -0.210, p = 0.139), leading to acceptance of the null hypothesis regarding their relationship.

This research employed two instruments administered to 51 tenth-grade students at SMA Dharma Wanita 1 Gedangan a 30-item questionnaire using a 4-point Likert scale to measure reading habits across six indicators, validated for reliability and validity; and a critical thinking students take a reading test with accommodations for assessing critical thinking by modifying the question items from HOTS *(Higher Order Thinking)* with critical thinking assessment found in previous studies with multiple-choice questions based on a reading text, with three questions representing each of four critical thinking components, completed within a 30-minute timeframe. The resulting data from both instruments were subsequently analyzed to examine the correlation between reading habits and critical thinking.

Based on descriptive statistics of students' reading habits, the minimum score was 28, and the maximum score was 88. In addition, the average score was 67.94, and the standard deviation was 10.894. Meanwhile, the descriptive statistics of the critical thinking test showed that the minimum score was 10 and the maximum score was 100. In addition, the mean score was 55.49, and the standard deviation was 21.430.

Normality testing (Kolmogorov-Smirnov) confirmed both variables met distribution assumptions, with significance values for reading habits (0.115) and critical thinking (0.200) exceeding the 0.05 threshold. Linearity testing further established a significant linear relationship between the variables (significance of deviation from linearity = 0.687 > 0.05), satisfying all prerequisite assumptions for correlation analysis.

The resulted of this study indicate no significant correlation between reading habits and critical thinking $(r = -0.210; p = 0.139)$, in contrast to the findings of Muhammad & Sholichah (2019) and Hasana (2022), who reported a significant positive correlation. This difference may be due to variations in the measurement instruments: both previous studies used multidimensional methods (interviews, observations, writing tests), better able to capture the complexity of critical thinking, while this study relies on self-report questionnaires. In addition, different sample contexts—such as the level of critical literacy and the availability of analytical reading—may affect the strength of the relationship between variables. The observed low negative correlation $(r = -0.210)$ warrants further investigation into students' reading material types, particularly as non-academic content may potentially impede critical thinking development. These findings reinforce the view that the reading habit-critical thinking relationship is context-dependent, influenced by unmeasured variables beyond this study's scope.