CONTRIBUTION OF PANCASILA LEARNER PROFILE AND MATHEMATICS LEARNING ACHIEVEMENT TO CRITICAL THINKING ABILITY OF AHMAD YANI INTEGRATED ISLAMIC ELEMENTARY SCHOOL STUDENTS IN MALANG

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ABSTRACT

This research investigates the effectiveness of the independent curriculum with the Pancasila student profile in developing students' critical thinking skills in Indonesia. His background emphasizes the importance of preparing students with relevant competencies for today's needs. Quantitative methods were used by collecting data through tests and questionnaires on SDIT Ahmad Yani students in Malang. The results of data analysis show that overall, the Pancasila student profile and mathematics learning achievement make a significant contribution to students' critical thinking abilities. Simultaneously, these two variables together explain around 24.1% of the variation in students' critical thinking abilities. Individually, the Pancasila student profile and mathematics learning achievement each make a significant contribution to students' critical thinking abilities. The conclusion of this research confirms that an approach using the Pancasila student profile and increasing mathematics learning achievement can help in developing students' critical thinking skills at school. Suggestions for this research include further intervention development based on these findings as well as comparative research to test the generalizability of these results to broader school populations with similar or different characteristics. This research provides important insights for curriculum and education development in Indonesia, especially in strengthening aspects of critical thinking skills as an integral part of Pancasila education.

Keywords: Pancasila Student Profile, Mathematics Learning Achievement, Critical Thinking

INTRODUCTION

Transformation in the history of Indonesian education has involved a number of improvements aimed at achieving the desired educational goals. One of the government's initiatives in achieving these goals is through improving the education curriculum. (Fajriansyah et al., 2023). The curriculum is the essence of an education system, and has undergone various changes and refreshments over time. Changes in the curriculum are something that cannot be avoided, because the curriculum is based on the principle of flexibility, which must always adapt to the needs and demands of the times. (Muhammedi, 2016).

Merdeka Curriculum is a curriculum that focuses on developing students' identities so that they have a soul and values that reflect the principles of Pancasila in their daily lives. (Fatmawati & Khusna, 2024; Rahmawati et al., 2023). In this context, the curriculum still

places character education as a top priority by incorporating Pancasila into the student profile as a central element (Rosmana et al., 2022). The Pancasila Learner Profile is a representation or description of the traits and behaviors of students who have a deep understanding of the principles of Pancasila and are able to implement them in aspects of their daily lives (Fajriansyah et al., 2023). The Pancasila learner profile strengthening project is a collaboration between various subjects combined in a school environment, where the implementation of this project is tailored to the needs or problems that exist in the environment around the school (Piesesa & Camellia, 2023; Tanamal & Prasetiyo, 2023).

The Pancasila learner profile includes characteristics that must be present in students, including six dimensions in the Pancasila learner profile which include: (1) Having faith and piety in God Almighty and good character; (2) Being able to be independent; (3) Being willing to work together; (4) Loving global diversity; (5) Being critical in thinking; and (6) Being creative. The goal of the project to strengthen the Pancasila learner profile in students is to shape them to have faith and piety in God Almighty, have good morals, participate in social cooperation, and have critical and creative thinking skills (Fauziah & Rohmawati, 2023; Hidayat et al., 2024; Hidayat et al., 2024).

One aspect of character in the Pancasila learner profile project is the ability to think critically (Rosmalah et al., 2022; Sugiyarti & Patmisari, 2024). The importance of critical thinking is one of the main goals in education today (Zubaidillah, 2020). An important part of the world of education is the learning process, and one of the subjects taught at all levels of education is mathematics (Kurniawati & Ekayanti, 2020). Critical thinking and mathematics are two elements that are interrelated and cannot be separated. To understand mathematical material, the ability to think critically is needed, while critical thinking can be honed and enriched through various stages in mathematics learning (Sulistiani & Masrukan, 2017).

An important part of education is the learning process, and one of the subjects taught at all levels of education is mathematics (Kurniawati & Ekayanti, 2020). Critical thinking and mathematics are two elements that are interrelated and cannot be separated. To understand mathematical material, the ability to think critically is needed, while critical thinking can be honed and enriched through various stages in mathematics learning. (Sulistiani & Masrukan, 2017). According to (Kurniawati & Ekayanti, 2020) Thus, the development of critical thinking skills in mathematics learning provides a positive impact by training problem-solving skills, encouraging innovative questions, and allowing students to build strong and logical arguments.

Based on the background described above, the authors are interested in following up on these problems in the form of research to find out "The Contribution of the Pancasila Student Profile and Mathematics Learning Achievement to Students' Critical Thinking Ability at Ahmad Yani Integrated Islamic Elementary School Malang" where it is hoped that this research will be able to provide results in the form of insights to teachers to pay more attention to the quality of the learning process in the application of the Pancasila student profile strengthening project where the more quality a lesson will affect the results to be achieved, namely the critical thinking ability of students, besides that this research is expected to be able to determine the contribution of mathematics learning achievement to critical thinking ability.

METHOD

This research uses a quantitative approach with data processing through statistical calculations. The analysis tool uses the SPSS application. The type of data used in this research is primary data. Primary data is a data source that directly provides data to data collectors (Nurjanah & Saadah, 2022). The method used in this research is a survey. Survey research is used to collect data from many respondents about their views, opinions, attributes, and actions that have occurred or are currently taking place. In surveys, data is obtained through filling out questionnaires by respondents (Duli, 2019). The population in this study were students of Ahmad Yani Integrated Islamic Elementary School in Malang, namely grades 4 and 5, totaling 127 students. The sample in this study used the Slovin formula so that with an error rate of 10% there were 55 students in grades 4 and 5 at Ahmad Yani Integrated Islamic Elementary School in Malang. Data analysis techniques in this study include instrument validity test, then instrument reliability test, classical assumption test, F model feasibility test, coefficient of determination, and partial t test.

DISCUSSIONS

Results

Instrument validity test

The question instrument to measure critical thinking variables proved to be valid, because each question had a calculated r value greater than r table (0.349), based on a pilot test on 31 student respondents. However, it was found that the 19th statement did not meet the validity criteria so the statement was removed from the instrument. Furthermore, based on table 4.2, the question instrument for the Pancasila learner profile variable also meets the general validity. However, there are some questions, namely the 19th, 33rd, and 38th questions, which have a calculated r value smaller than r table, indicating that the questions are invalid. Therefore, these questions were removed from the instrument to ensure that the instrument used was truly valid and reliable in this study.

Reliability test

Table 1
Cronbach Alpa Test Results Instrument Pancasila student profile
Reliability Statistics of Critical Thinking Instrument

Cronbach's Alpha	N of Items
0.904	45

Based on the results of the Cronbach alpha test carried out, the results show a value of 0.904 so that it refers to (Sugiyono, 2017) the reliability coefficient on the critical thinking variable research instrument is in the "highly reliable" category. Meanwhile, the results of the critical thinking instrument test with 23 questions after deletion are as follows.

Table 2
Cronbach Alpha Test Results Instrument critical thinking
Reliability Statistics of Critical Thinking Instrument

Cronbach's Alpha	N of Items
0.806	23

Based on the results of the Cronbach alpha test carried out, the results show a value of 0.806 so that it refers to (Sugiyono, 2016) the reliability coefficient on the critical thinking variable research instrument is in the "reliable" category.

Classical Assumption Test

Normality test

The normality test of the research data was carried out using the Shapiro Wilk test because the research subject was below 200. The following are the researcher's findings.

Table 3
Shapiro Wilk Normality Test

	Statistic	df	Sig.
PROFILE	0.982	55	0.594
RESULTS	0.967	55	0.130

Based on the results in table 4.5, it can be concluded that the results of the shapiro wilk test with sig> 0.05, it can be said that the data is normally distributed so that further testing can be carried out.

Data Linearity Test

The data linearity test is carried out to determine whether there is a linear relationship between the two variables. The following are the results obtained by researchers.

Table 4
Linearity Test Results

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)	1928.662	18	107.148	2.592	0.007
	Linearity	824.311	1	824.311	19.945	0.000
	Deviation from Linearity	1104.351	17	64.962	1.572	0.125
Within Groups		1487.883	36	41.330		
Total		3416.545	54			

Based on the results of the linearity test in table 4.6, conclusions can be drawn in two ways, namely by looking at the sig result which is 0.   125> from 0.05 so that there is a

linearity relationship from the Pancasila profile with students' critical thinking skills, while the second conclusion is by looking at the calculated F value of 1.572 < from the F table value with the formula Df: within group (17: 36) at the 5% significance level, namely 1.94 so that there is a linearity relationship from the Pancasila profile with students' critical thinking skills.

Heteroscedasticity Test

The hetorekadastisitas test is carried out to determine whether the variance observed is the same or not, in regression there should be no symptoms of herokedastisitas. The following results are obtained by researchers by looking at the scatter plot diagram.

Figure 1
Scatter plot
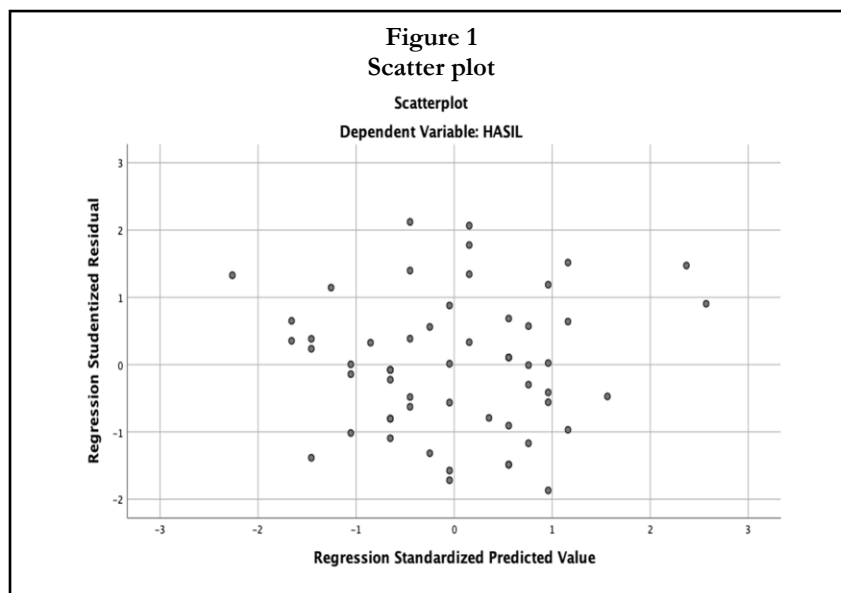
Based on Figure 4.1 that the distribution of data is seen in the spread of scattered points and there is no formation of certain patterns, so there are no symptoms of hetorokedastisitas in the research data and can be carried out to the next test stage.

Descriptive Analysis of Research Data

The following is a descriptive analysis of research data related to the Pancasila student profile variable (x1) then the mathematics learning outcomes variable (x2) and the critical thinking variable (Y).

Table 5
Results of Descriptive Analysis of Research Data

	N	Minimum	Maximum	Mean	Std. Deviation
Pancasila student profile	55	64.00	88.00	75.2364	4.96642
Critical thinking skills	55	131.00	165.00	146.0909	7.95420
Math learning ability	55	81.00	100.00	92.0364	4.37994

The data provided outlines the distribution of scores from 55 students on three main variables: "Pancasila student profile," "Math learning outcomes," and "Critical thinking skills." For the first variable, "Pancasila learner profile," students' scores ranged from 64 to 88, with a mean of 75.2364 and a standard deviation of 4.96642. This indicates that most students had scores relatively close to the average, with not too much variation.

On the second variable, "Math learning outcomes," scores ranged from 131 to 165, with a mean of 146.0909 and a standard deviation of 7.95420. The variation in scores on this math learning outcome was slightly larger than on the first variable, indicating a more significant difference in math learning outcomes among students.

Meanwhile, on the third variable, "Critical thinking ability," scores ranged from 81 to 100, with a mean of 92.0364 and a standard deviation of 4.37994. This indicates that most students have fairly consistent critical thinking skills with averages that are not much different from each other.

Overall, this data provides a comprehensive picture of the distribution of learner abilities and characteristics in three different aspects. The means and standard deviations presented help to understand how consistent and varied the students' abilities and characteristics are in each aspect measured.

Multiple Linear Regression Test

<u>Model goodnes fit test</u>

This study uses multiple linear regression analysis to process data. The multiple regression equation is a test of the effect of several independent variables on one dependent variable (Ghozali, 2018). The hypothesis to be tested in this study is testing the contribution of the Pancasila student profile, and math learning achievement to students' critical thinking skills. The following are the results obtained by researchers.

Table 6
Anova test results

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1038.479	2	519.239	11.354	.000[b]
Residuals	2378.067	52	45.732		
Total	3416.545	54			

Based on the SPSS output table above, the Sig. value is 0.000. Because the value of Sig. 0.000 <0.05, then in accordance with the basis for decision making in the F test it can be concluded that the hypothesis is accepted or in other words, the Pancasila student profile (X1) and math learning outcomes (X2) simultaneously affect critical thinking skills (Y).

The data outlines a multiple linear regression model that shows the relationship between "Pancasila learner profile" (X1) and "Math learning achievement" (X2) to "Critical thinking ability" (Y). The results of the analysis show that this model is significant with an (F)-statistic of 11,354 and a significance level (Sig.) of 0.000.

This model shows that the variation in "Critical thinking ability" can be explained by "Pancasila learner profile" and "Math learning   achievement," with high F-statistic values indicating the significant influence of these variables.

Determination Coefficient Test

The coefficient of determination (R^2) is used to predict how much contribution the influence of the independent variable has on the dependent variable. The following results are obtained by researchers.

Table 7
Model summary results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.491[a]	0.241	0.227	6.99357

The table provides a summary of the regression model that links the independent variables ("Pancasila learner profile" and "Math learning achievement") with the dependent variable ("Critical thinking ability"). Here is the interpretation. R Square (0.241): This is the coefficient of determination which shows the proportion of variability in the dependent variable that can be explained by the independent variables. The value of 0.241 means that about 24.1% of the variability in "Critical thinking ability" can be explained by the model that includes "Pancasila learner profile" and "Math learning achievement".

Partial Test

The t test is used to show how far the influence of the independent variables individually in explaining the variation in the dependent variable (Ghozali, 2018). This test is carried out on the regression coefficient, which is actually a representation of the causality coefficient to be tested. The following are the results obtained by researchers.

Table 8
Partial test results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	49.702	22.152		2.244	0.029
PROFILE	0.719	0.188	0.449	3.823	0.000
MAT	0.460	0.212	0.254	2.164	0.035

The regression model shows that both independent variables, "Profile of Pancasila learner" and "Mathematics learning achievement," have a significant influence on "Critical thinking ability." "Profile of Pancasila learner" has a greater influence (coefficient B = 0.719) than "Mathematics learning achievement" (coefficient B = 0.460), based on the unstandardized coefficient values. These two independent variables together make a significant contribution to the dependent variable, according to the significant values ($p < 0.05$). so the null hypothesis that there is no influence is rejected.

Discussion

This study aims to evaluate the contribution of "Profile of Pancasila Students" to the "Critical Thinking Ability" of students at Ahmad Yani Integrated Islamic Elementary School in Malang with a sig value of 0.00. Based on the results of regression analysis, it was found that "Profile of Pancasila Students" has a significant influence on students' critical thinking

skills. The results of this study indicate that the strengthening of Pancasila values in the student profile is closely related to the improvement of students' critical thinking skills. This is in line with the literature which states that character education based on moral and ethical values can support the development of higher order thinking skills in students. According to a study by (Khairunnisa et al., 2024) states that the Pancasila Learner Profile Strengthening Program is an effective measure in improving students' understanding of Pancasila values and their critical thinking skills in primary schools

In addition, the results of research conducted by researchers prove the contribution of students' mathematics learning outcomes to contribute to critical thinking skills in students as shown by the results of data processing sig 0.000 <0.05, these results are in line with some of the findings from (Ariani & Batubara, 2017) There is a relationship between critical thinking skills and student learning achievement through the use of realistic mathematics learning that uses Krulik and Rudnik's heuristic strategy. This itself can be associated with mathematics, according to (Cahyanto & Pabrawati, 2019) Mathematics is a fundamental skill that must be mastered by every individual, because it aims to provide problem-solving abilities in life by using logical, critical, diligent, and responsible thinking.

The research results showing the contribution of the Pancasila learner profile (P5) and mathematics learning achievement to students' critical thinking skills at Ahmad Yani Integrated Islamic Elementary School in Malang are an important point in understanding the factors that influence the development of students' critical thinking skills. The Pancasila learner profile reflects the moral, ethical, and character values instilled in education (Novalia, 2023). In this context, students who have a good Pancasila learner profile tend to have a strong foundation in undergoing the learning process, including in mathematics. Good learning ethics, an attitude of responsibility towards tasks, and a critical attitude towards the information obtained can help students develop critical thinking skills. Research results from (Khairunnisa et al., 2024) The Pancasila Learner Profile Strengthening Program is an effective step in improving students' understanding of Pancasila values and their critical thinking skills in primary schools. With the right collaboration between various related parties.

CONCLUSSION

Based on the data analysis in this study, it is concluded that the Pancasila learner profile and mathematics learning achievement have a significant contribution to students' critical thinking skills at Ahmad Yani Integrated Islamic Elementary School in Malang. Specifically, the Pancasila learner profile is proven to contribute positively to students' critical thinking skills, as well as mathematics learning achievement. Therefore, for future research, it is recommended to develop interventions aimed at improving the Pancasila learner profile and mathematics learning achievement. These interventions can be in the form of learning programs or extracurricular activities specifically designed to strengthen certain aspects of the two variables, so that it is expected to improve students' overall critical thinking skills. In addition, comparative research between schools with similar or different characteristics is recommended to test the generalizability of these findings. Thus, it can be evaluated to what extent the results of this study can be widely applied and identify contextual factors that influence different outcomes in different schools.

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