



ANALYSIS OF THE INFLUENCE OF THE SCIENTIFIC APPROACH ON THE LEARNING ACHIEVEMENT OF READING AND WRITING THE QUR'AN IN GRADES V AND VI OF NGABLAK 1 PUBLIC ELEMENTARY SCHOOL, NGABLAK DISTRICT, MAGELANG REGENCY

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ABSTRACT

This study aims to determine the results of the scientific approach, the improvement of the achievement of reading and writing the Qur'an, and its positive relationship with the learning achievement of these students. This study uses a quantitative research method, based on positivism, to investigate a specific population or sample. Data collection and analysis were carried out on individuals, groups, human environments, and social institutions. The research setting was determined by establishing good relationships with informants and maintaining distance from them, creating a natural situation. The setting consists of the place, actors, and activities. This study found that students were highly motivated and had a good scientific understanding, with a high level of active participation and goal achievement. The increase in learning achievement was also high, with an increase rate of 86.70%. The correlation coefficient between the two variables was positive, with a calculated r_{xy} value of 0.941, which is greater than the table r value at the 5% significance level of 0.361. The Null Hypothesis (H_0) was rejected and the Alternative Hypothesis (H_a) was accepted, which indicates that students with high scientific achievement will achieve high learning achievement, while those with low scientific achievement will have low achievement.

Keywords: Reading achievement, writing the Qur'an, relationship between learning achievement

INTRODUCTION

Ngablak 1 Elementary School is a leading school in Ngablak District that is ready to implement the 2013 Curriculum, including Islamic Religious Education (Kurniasih & Sani, 2014). However, teachers still face many challenges in implementing the scientific approach in the learning process. Teachers, especially those in Islamic Religious Education, still do not fully understand the scientific approach due to the lack of socialization conducted by the government regarding the scientific approach. Training provided to teachers is limited to understanding, lacking a more in-depth explanation with examples of its application. In the learning process, teachers still predominantly use the lecture method, resulting in students being less active in class. Learning procedures such as observing, asking questions, experimenting, reasoning, concluding, and communicating have not been fully implemented, so the scientific approach in learning has not been fully indicated as required in the development of the 2013 curriculum. According to Daryanto, (2014) learning with a close approach science is process learning Which designed in such

a way appearance so that student actively from construction draft, law or principle through stages (to identify a situation or know how to find a problem), discuss the problem, put forward a statement or proposing hypotheses, collecting data using various techniques, analyzing data systems, interesting to conclude and communicate concepts, laws or principles Which found.

Islamic Religious Education plays a crucial role in character formation and national development. It prepares students to believe in, understand, and practice Islamic teachings. Through Islamic Religious Education, the cognitive and affective aspects can be integrated, and the values of Islamic Religious Education will automatically be internalized in children (Mulyasa, 2009, 2013). Therefore, Islamic Religious Education is deemed necessary to be introduced and instilled in children from an early age, even at the elementary school level. In this regard, the learning approaches and methods applied by teachers play a crucial role. In the development of the 2013 curriculum, the implementation of competency- and character-based learning is recommended using a scientific approach (Hosnan, 2014). This scientific approach is seen as a golden opportunity for the development and advancement of attitudes, skills, and knowledge. Through the integrated strengthening of attitudes, skills, and knowledge, it is hoped that students will become productive, affective, innovative, and creative. Research shows that learning based on a scientific approach is more effective than traditional learning. According to (Daryanto, 2014) effective teachers are able to inspire the students and their education to increase and develop a range of attitude, skills, and his knowledge. When Teacher ask, on moment That he guiding participants in doing a Study with Good. When the teacher answers the question question participant did it happen, when it came to that he too me n dorong p e s e rta did i k n y a it is to serve as a storage place p e mbel a jar Which Good.

The basic competency for elementary school students is the ability to read and write the Qur'an correctly. This competency is very appropriate, fundamental, and strategic because to achieve the learning of the Qur'an and Hadith requires the ability to read and write the Qur'an. Through these Qur'an reading and writing activities, it is hoped that students are truly able to read and write the Qur'an correctly, in accordance with the established rules. SDN Ngablak 1 implements the 2013 curriculum with local content, especially reading and writing the Qur'an, which is adapted to the conditions of the surrounding community. Current Qur'an education and teaching are still largely unable to address the problem of the increasing number of young people who are illiterate in the Qur'an. Various efforts have been made to address this problem, including the Qur'an reading and writing program, which is expected to answer the challenges that exist in teaching local content reading and writing the Qur'an. Based on this, the ability to read and write the Qur'an is very important for every student to understand, appreciate, and practice its contents. Islamic Religious Education (PAI) also requires its students to preserve the Qur'an by reading it regularly and practicing its teachings in their daily lives as a reflection of its diversity. This study aims to examine the application of a scientific approach in reading and writing the Qur'an to fifth and sixth grade students at SDN Ngablak 1, Ngablak District, Magelang Regency. This study aims to determine the results of the scientific approach, the improvement in Qur'an reading and writing achievement, and its positive relationship with the students' academic achievement.



METHOD

This study uses a quantitative research method, based on positivism, to investigate a specific population or sample. Data collection and analysis are conducted on individuals, groups, human environments, and social institutions. The research setting is determined by establishing good relationships with informants and maintaining distance from them, creating a natural situation (Sugiyono, 2023). The setting consists of the place, actors, and activities. The research was conducted at SDN Ngablak 1, Ngablak District, Magelang Regency, an elementary school with a population that is predominantly farmers, market traders, and vendors. Awareness of the importance of education for children is still low.

Data sources are divided into primary and secondary sources. Primary data sources provide data directly to data collectors, while secondary data sources provide data indirectly. In this study, primary data, such as student performance results before and after free drawing activities, were obtained directly from the subjects (Creswell & Creswell, 2018; Endraswara, 2006). A population is a general area consisting of objects/subjects with certain qualities and characteristics determined by the researcher. The population in this study was all fifth and sixth grade students of SDN Ngablak 1, Ngablak District, Magelang Regency, in the 2018/2019 academic year. A sample is a portion or representative of the population being studied, and a sampling technique is used to determine this sample. In this study, a saturated sampling technique was chosen, using the entire population as sample members, because it is expected to represent 100% of the population (Arikunto, 2006).

RESULT AND DISCUSSION

Based on the results of an interview with Mrs. Wartiningsih, S.Pd. SD as the principal of SDN Ngablak 1 which was held on January 3, 2019 so that some valid data (school documents) were obtained. In 1912, SDN Ngablak 1 was the first elementary school in Ngablak District, which was originally called SR (People's School). The facilities and teaching staff were limited. The expansion of Ngablak Market disrupted school activities, so a joint deliberation took place between educational figures and the local government to relocate the school to the east of Surokridho Ngablak Field. The strategic location of the school in the middle of a Muslim and educated community created a pleasant atmosphere for teaching and learning activities, so that parents strongly supported their students to attend SDN Ngablak 1. In 1982, the government built a new school building and official residence to the east of Surokridho Ngablak Field, covering an area of 3,600 m². In 2016, SDN Ngablak 1 was selected as a Leading Elementary School by the LPMP of Central Java Province.

Scientific approach and BTQ learning achievement at SDN Ngablak1. Based on research conducted at SDN Ngablak 1 Ngablak District, researchers can collect data through a Scientific approach questionnaire and learning achievement for students in learning to read and write the Qur'an consisting of positive and negative statements then distributed to students in grades V and VI, the number of questionnaires consisting of 20 statements containing indicators. After being tested on 30 respondents, if the results are satisfactory then it is considered that no revision is necessary. Considering that the respondent's task is only to give a mark ($\sqrt{\quad}$) on the SS sign for strongly agree statements, S for agree statements, TS for disagree statements and STS for strongly disagree statements.



Table 1. Validity Testing of Scientific Approach Variables

Statement	R count	R table	Information
1	0.598	0.361	valid
2	0.592	0.361	valid
3	0.617	0.361	valid
4	0.595	0.361	valid
5	0.631	0.361	valid
6	0.695	0.361	valid
7	0.677	0.361	valid
8	0.748	0.361	valid
9	0.653	0.361	valid
10	0.602	0.361	valid
11	0.647	0.361	valid
12	0.762	0.361	valid
13	0.626	0.361	valid
14	0.372	0.361	valid
15	0.847	0.361	valid
16	0.678	0.361	valid
17	0.581	0.361	valid
18	0.407	0.361	valid
19	0.511	0.361	valid
20	0.372	0.361	valid

Source: SPSS 25.0 for Windows testing

Based on Table 1. the scientific statement information for questionnaire numbers 1 to 20 obtained a positive calculated r value because it was more than the r table of 0.361, so the questionnaires were declared valid.

Table 2. Validity Testing of Learning Achievement Variables

Statement	R count	R table	Information
1	0.451	0.361	valid
2	0.397	0.361	valid
3	0.551	0.361	valid
4	0.420	0.361	valid
5	0.636	0.361	valid
6	0.641	0.361	valid
7	0.405	0.361	valid
8	0.731	0.361	valid
9	0.585	0.361	valid
10	0.610	0.361	valid
11	0.583	0.361	valid
12	0.658	0.361	valid
13	0.774	0.361	valid
14	0.500	0.361	valid
15	0.802	0.361	valid



Statement	R count	R table	Information
16	0.802	0.361	valid
17	0.582	0.361	valid
18	0.402	0.361	valid
19	0.608	0.361	valid
20	0.386	0.361	valid

Source: SPSS 25.0 for Windows testing

Based on Table 2. description; statements from numbers 1 to 20 obtained a positive calculated r value because it is more than the r table of 0.361, so that all the questionnaires are declared valid.

Table 3. Instrument Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
0.967	2

Source: SPSS 25.0 for Windows testing

Based on table 3. The variables (N of Item 2), namely scientific and student learning achievement, have a Cronbach's Alpha value of 0.967, more than 0.5, so the variables are declared reliable, reliable and meet the reliability requirements for use in further research.

Table 4. Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Standard Deviation
Scientific	30	53.00	78.00	63.37	5,654
Performance	30	54.00	79.00	64.13	5.158
Valid N (listwise)	30				

Source: SPSS 25.0 for Windows testing

The results of the analysis of the description of scientific variables from 30 respondents (N) obtained the highest value of 78.00, the lowest value of 53.00, the average value of 63.37, and the Std Deviation Value of 5.654, the results of the analysis of the description of learning achievement variables from 30 respondents (N) obtained the highest value of 79.00, the lowest value of 54.00, the average value of 64.13, the Std Deviation value of 5.158.

A. Scientific Variables

Divided into three categories, namely high, medium, and low, based on the class interval formula, namely the highest ideal value minus the lowest ideal value plus one then divided by the number of class intervals. The highest ideal value is obtained by a score of 78, namely the number of questionnaires with 20 statements, then multiplied by the value of each highest ideal score, namely 4 (20x4). While the lowest ideal value is 1, the number



of questionnaires is 20, then multiplied by the lowest ideal value, namely 1 (20x1). More clearly the class interval formula is presented as follows:

$$\text{Class interval} = \frac{(\text{nilai tertinggi ideal} - \text{nilai terendah ideal})}{\text{jumlah interval kelas}}$$

$$\text{Class interval} = \frac{((20 \times 4) - (20 \times 1)) + 1}{3}$$

$$\text{Class interval} = \frac{((78 - 20)) + 1}{3}$$

$$\text{Class interval} = \frac{59}{3}$$

$$\text{Class interval} = 19.66 = 20$$

Table 5. Frequency Table

Frequency Table Scientific					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	53.00	1	3.3	3.3	3.3
	55.00	1	3.3	3.3	6.7
	56.00	1	3.3	3.3	10.0
	57.00	1	3.3	3.3	13.3
	58.00	1	3.3	3.3	16.7
	59.00	1	3.3	3.3	20.0
	60.00	2	6.7	6.7	26.7
	61.00	2	6.7	6.7	33.3
	62.00	2	6.7	6.7	40.0
	63.00	5	16.7	16.7	56.7
	64.00	4	13.3	13.3	70.0
	65.00	4	13.3	13.3	83.3
	67.00	1	3.3	3.3	86.7
	71.00	1	3.3	3.3	90.0
	75.00	2	6.7	6.7	96.7
	78.00	1	3.3	3.3	100.0
	Total		30	100.0	100.0

Table 6. Frequency Distribution

Category	Score	Frequency	Percentage
Tall	60-80	24	80.00%
Currently	40-59	6	20.00%
Low	20-39	0	00%
		30	100.00%

Source: SPSS 25.0 for Windows testing

Based on Table 6, it is known that there were 30 students who responded. The analysis results showed that 80.00% of respondents (24 students) were in the high category, 20.00% of respondents (6 students) were in the medium category, and no respondents/students were in the low category. These results can be illustrated in the following graph:



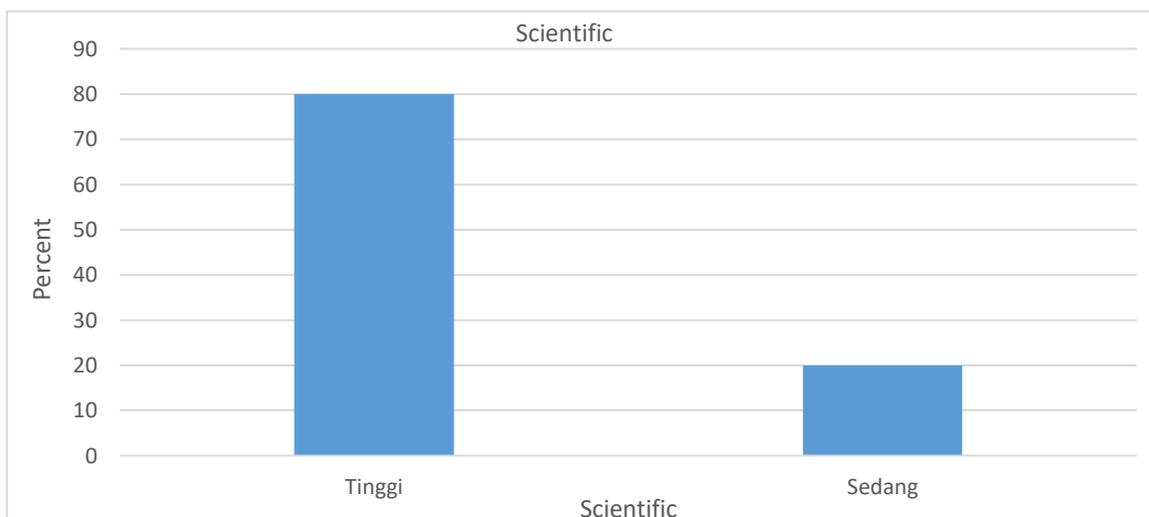


Figure 1. Scientific

Source: SPSS 25.0 for Windows testing

Based on graph 1. it can be seen that the highest score gets 80.00% in the high category, the medium score gets 20.00% in the medium category and there is no low category. So it can be seen that the scientific learning of grade V and VI students of SDN Ngablak 1 is in the high category. The effect of the Scientific approach to learning to read and write the Qur'an for grade V and VI students of SDN Ngablak 1 is measured through testing the validity of the variable is in the high category. After the data is collected and analyzed descriptively.

B. Learning Achievement Variables

Divided into three categories, namely high, medium, and low, based on the class interval formula, namely the highest ideal value minus the lowest ideal value plus one then divided by the number of class intervals. The highest ideal value is obtained by a score of 80, namely the number of questionnaires of 20 statements, then multiplied by the value of each highest ideal score, namely 4 (20x4). While the lowest ideal value is 1, the number of questionnaires is 20, then multiplied by the lowest ideal value, namely 1 (20x1).

The class interval formula is presented more clearly as follows:

$$\text{Class interval} = \frac{(\text{nilai tertinggi ideal} - \text{nilai terendah ideal})}{\text{jumlah interval kelas}}$$

$$\text{Class interval} = \frac{((20 \times 4) - (20 \times 1)) + 1}{3}$$

$$\text{Class interval} = \frac{((79 - 20) + 1)}{3}$$

$$\text{Class interval} = \frac{60}{3}$$

$$\text{Class interval} = 20$$

Based on the class interval, the frequency distribution of respondents' answers is as follows:

Performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	54.00	1	3.3	3.3	3.3
	57.00	1	3.3	3.3	6.7
	58.00	1	3.3	3.3	10.0
	59.00	1	3.3	3.3	13.3
	60.00	1	3.3	3.3	16.7
	61.00	2	6.7	6.7	23.3
	62.00	4	13.3	13.3	36.7
	63.00	4	13.3	13.3	50.0
	64.00	4	13.3	13.3	63.3
	65.00	4	13.3	13.3	76.7
	66.00	1	3.3	3.3	80.0
	67.00	2	6.7	6.7	86.7
	71.00	1	3.3	3.3	90.0
	72.00	1	3.3	3.3	93.3
	76.00	1	3.3	3.3	96.7
	79.00	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Frequency Distribution				
Category	Score	Amount	Percentage	
Tall	60-80	26	86.70%	
Currently	40-59	4	13.30%	
Low	20-39	0	0%	
		30	100.0%	

(Source: SPSS 25.0 for Windows Testing)

Based on Table 8, it is known that there were 30 students who responded. The analysis results showed that 86.70% of respondents (26 students) were in the high category, 13.30% of respondents (4 students) were in the medium category, and no respondents/students were in the low category. These results can be illustrated in the following graph:



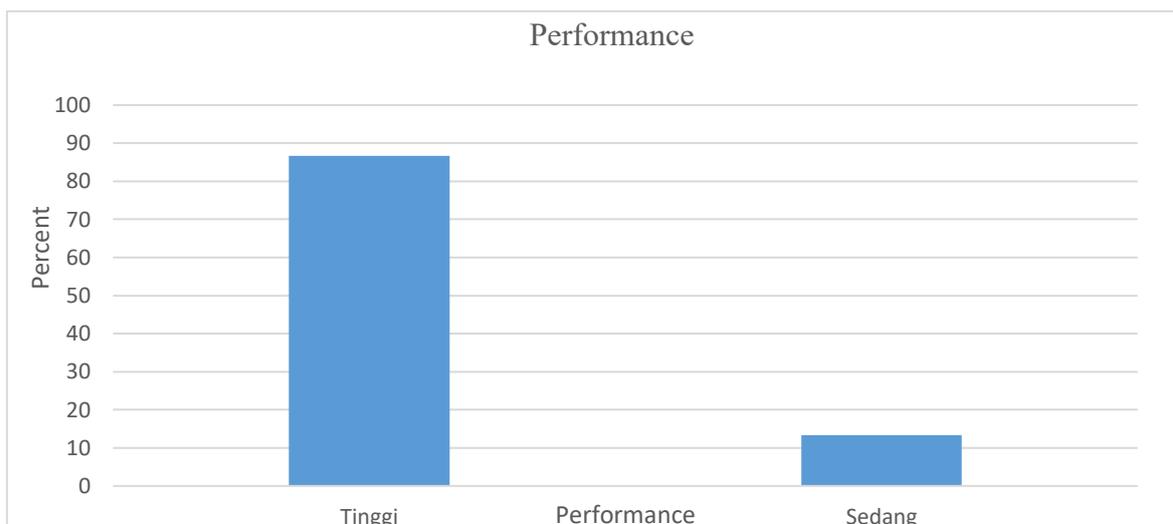


Figure 2.

Source: SPSS 25.0 for Windows testing

Based on graph 2, it can be seen that the highest score was 86.70% in the high category, and the remaining 13.30% in the medium category. Therefore, it can be seen that the learning achievement of fifth and sixth grade students at SDN Ngablak 1 is in the high category.

Table 9. Correlations

Correlations			
Valid		Scientific	Performance
	Pearson Correlation	1	.941 **
Scientific	Sig. (2-tailed)		0.000
	N	30	30
	Pearson Correlation	.941 **	1
Performance	Sig. (2-tailed)	0.000	
	N	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS 25.0 for Windows testing.

Based on the table above, it is known that the correlation value is .941** with a sig. value of 0.000. The sig. value of 0.000 < 0.05 indicates that statistically there is an influence of the scientific approach on the learning achievement of reading and writing the Qur'an in grades V and VI at SDN Ngablak 1, the higher the influence of the scientific approach, the higher the learning achievement of reading and writing the Qur'an in grades V and VI at SDN Ngablak 1. So, the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted.

Discussion

The scientific approach is a powerful tool for developing attitudes, skills, and knowledge, aiming to produce productive, affective, innovative, and creative students. Research shows that learning based on the scientific approach is more effective than

traditional methods (Syah, 2006). This approach consists of six stages: observing, asking, trying, reasoning, drawing conclusions, and communicating. This approach can be applied to various learning models, such as Discovery Learning. A study of 30 fifth and sixth grade students demonstrated the application of the scientific approach in reading and writing the Quran. Teachers conducted observation activities, then students asked questions about the material, formed study groups, gathered information from group members and other sources, summarized the material, and communicated the results orally, in writing, or using other media. BTQ teachers used a variety of media and learning methods to maintain student interest and engagement. However, some students still experienced low learning achievement or difficulties, such as lack of motivation, poor health, family conflict, drowsiness, inadequate equipment or media, and a boring classroom environment (Mulyasa, 2006; Syaripah, 2014). Learning disabilities are situations in which students are unable to learn as they should, for example, by receiving or absorbing lessons during lessons delivered or assigned by the teacher. Despite these challenges, scientific approaches have proven effective in improving student engagement and achievement.

Based on the explanation above, it can be concluded that students' low learning achievement is caused by learning difficulties influenced by several factors, namely internal and external factors (Kodir, 2018; Soedjana, 2008). In this problem, teachers play a very important role in helping students improve their enthusiasm for learning and teachers must provide effective assistance and guidance to students. Teacher competency standards are based on a conceptual framework that considers the context and expectations of teachers' work. These competencies can be categorized into pedagogical, social, personality, and professional competencies. A scientific approach to teaching has been shown to improve student achievement in reading and writing the Quran. This approach is student-centered, systematic, and encourages active engagement with learning resources. It stimulates intellectual development, especially higher-order thinking skills, and develops students' character. To implement this approach effectively, teachers must use strategies that are enjoyable, contextual, effective, efficient, and meaningful. Learning achievement is defined as evidence of effort manifested through activities aligned with desired goals, resulting in changes in cognitive, affective, and psychomotor behavior (Amir, 2012; Djali, 2007). Teachers must consider three aspects: cognitive, affective, and psychomotor, to measure student success. The scientific approach to teaching is effective in increasing students' interest in learning and fostering critical thinking and engagement in the learning process.

CONCLUSION

A study conducted at SDN Ngablak 1 found that the scientific approach significantly improved the learning achievement of fifth and sixth grade students in reading and writing the Qur'an. This study found that students were highly motivated and had good scientific understanding, with a high level of active participation and goal achievement. The increase in learning achievement was also high, with an increase rate of 86.70%. The correlation coefficient between the two variables was positive, with a calculated r_{xy} value of 0.941, which was greater than the table r value at the 5% significance level of 0.361. The Null Hypothesis (H_0) was rejected and the Alternative Hypothesis (H_a) was accepted, which indicated that students with high scientific achievement would achieve high



learning achievement, while those with low scientific achievement would have low achievement. Thus, the implementation of the scientific approach had a positive effect on student learning achievement in reading and writing the Qur'an at SDN Ngablak 1.

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