

CHAPTER IV RESEARCH FINDINGS AND DISCUSSION

A. Research Results

1. Description of Research Object

a. Overview of Research Objects

This research was conducted at MTs Mazro'atul Huda Wonorengo Demak. In this study, the sample used namely the students of class VIII-A as the Experiment test class and class VIII-B students as Control class. Before conducted research, researcher and subject teachers had conveyed the objectives of this research and material to be tested on the subject so that they had an overview and readiness to learn about the material to be submitted is English vocabulary material in the Daily Routines theme.

b. Vision and Mission of the School

The vision of MTs Mazro'atul Huda Wonorengo, Demak Regency is as follows: "The Realization of a Generation of Shalih, Alim, and Skilled"

The indicators of the vision are as follows:

- 1) Orderly perform fardhu prayers
- 2) Get used to reading the Qur'an
- 3) Get used to performing circumcison prayers, for example, dhuha
- 4) Accustomed to dhikr and prayer
- 5) Excellent in obtaining test scores
- 6) Excellent in the competition to continue to the next level of education
- 7) Excellent mastery of English
- 8) Memorize Juz 'Amma, yassin, Al-waqi'ah, Al-mulk
- 9) Memorize and fluent the prayer after prayer or daily prayers
- 10) Mastery of Information and Communication Technology¹

c. School Goals

The objectives of MTs Mazro'atul Huda Wonorengo Demak Regency to achieve eight national education standards are as follows:

- 1) Improving the practice of Islamic teachings correctly.

¹ Results of data documentation at Mts Mazro'atul Huda Wonorengo Demak on August 6, 2022.

- 2) Improving the ability of students who are skilled in work, smart in thinking, and noble in character.
- 3) Creating religious life in the Madrasah environment.
- 4) Provide information and services to students, parents, and the community properly and proportionally.
- 5) Improving the competence of educators and education staff.
- 6) The percentage of students who go to class and graduate reaches 100%.
- 7) Strive for graduates to be accepted in superior state SMA/MA.²

2. Data analysis

a. Validity Test

Validity is the most important idea to consider when selecting or preparing an instrument for used³. It means the extent to which the conclusions made from the assessment result are meaningful, appropriate, and useful in terms of the purpose of the assessment⁴.

In the research, the researcher uses SPSS to measure validity. To find out the validity of the test, we can used *Pearson's product-moment correlation*.

Table 4.1
Test of Validity

No items	R table	R count	Sig	Result
Soal1	0,456	0,625	0,00	Valid
Soal2	0,456	0,545	0,01	Valid
Soal3	0,456	0,492	0,03	Valid
Soal4	0,456	0,549	0,01	Valid
Soal5	0,456	0,517	0,02	Valid
Soal6	0,456	0,439	0,06	Invalid
Soal7	0,456	0,517	0,02	Valid
Soal8	0,456	0,457	0,04	Valid
Soal9	0,456	0,465	0,04	Valid
Soal10	0,456	0,571	0,01	Valid

² Results of data documentation at Mts Mazro'atul Huda Wonorenggo Demak on August 6, 2022.

³ Jack R. Fraenkel, et al. *How to Design and Evaluate Research in Education*. New York: Mc Grow Hill Companies. 1932. 182

⁴ H. Douglas Brown. *Language Assesment Principles and Classroom Practice*. New York. Longman. 2000. 22

Soal11	0,456	0,495	0,03	Valid
Soal12	0,456	0,040	0,87	Invalid
Soal13	0,456	0,705	0,00	Valid
Soal14	0,456	0,464	0,04	Valid
Soal15	0,456	0,730	0,00	Valid
Soal16	0,456	0,530	0,02	Valid
Soal17	0,456	0,050	0,83	Invalid
Soal18	0,456	0,655	0,00	Valid
Soal19	0,456	0,517	0,02	Valid
Soal20	0,456	0,720	0,00	Valid
Soal21	0,456	0,704	0,00	Valid
Soal22	0,456	0,129	0,59	Invalid
Soal23	0,456	0,647	0,00	Valid
Soal24	0,456	0,549	0,01	Valid
Soal25	0,456	0,129	0,59	Invalid

From the above table, it showed the result of the validity test. To knowing valid or invalid, if the value of r count $>$ than r table was valid and if the value of r count $<$ r table, it was invalid. The value of r table based on table product-moment with significance 5% (0, 05). R table is 0,456. There were 5 items invalid (6,12,17,22,25) and more than it was valid (20 items). From the valid items, the researcher took 20 items that used to pre-test and post-test.

b. Reliability Test

Reliability is concerned with the effect of such random errors of measurement on the consistency of scores⁵. Actually, the ideal test should be both valid and reliable. In this research, the researcher also used SPSS 25 for windows to know the reliability of the instruments.

Table 4.2

Test of Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.865	25

⁵ Ary, Donald. Jacobs, Lucy C. Razavieh, Asghar. *Introduction to Research in Education*. USA: Wadsworth Thomson learning, 2002. 250.

From of the calculation above, the reliability of students' reliability instrument is 0,865. The value of reliability is consulted r table on the significance level of 0,60. The value of the r table is 0,456 because the value of r index reliability is 0,865 > than r table 0,456 so the test is reliable.

c. **Descriptive Statistics**

Independent samples T-test research data is this was done by distributing pre-test, treatment and posttest to 20 students in class VIII A and VIII B at MTs Mazroatul Huda Wonorenggo Demak. The data is processed by using SPSS Program. The first step to determine independent T-test 2 testing requirements must be carried out, namely: test for normality, homogeneity and then independent samples T test.

Tests are the main data source for this research. The test was administered at the beginning and the end of the research. Those tests were given to the two experimental and controlled groups. Furthermore, the test results would be presented as follows.

Researcher has conducted an independent samples test research by distributing pre-test, treatment and post-test to 20 students from class VIII-A and VIII-B at MTs Mazro'atul Huda Wonorenggo Demak. Research data consists of scores and descriptive statistical analysis of the two experiments and controlled classes are as follows.

1) **Control Class Student Learning Outcomes**

In the control class, before being given treatment, students were first given 20 questions to determine students' initial abilities. Assessment is carried out using a scale of 100. After knowing the students' initial abilities, then control class students are taught using conventional method. At the last meeting students were given 20 post-test questions with an assessment using a scale of 100 to find out student learning outcomes.

Based on the calculation results in the attachment, it is known that the pre-test score in the control class has the highest score of 75 with 3 students and the lowest score is 50 with 1 student. Pre-test scores are presented in the following table:

Table 4.3
Calculation of Pre-Test Control Class

Pre Test Control Class			
No.	Score	Frequency	Mean
1.	50	1	65,00
2.	55	2	
3.	60	4	
4.	65	5	
5.	70	5	
6.	75	3	
Σ		20	

Based on the calculation results in the attachment, it is known that the post-test score in the control class has the highest score of 85 with 1 students and the lowest score is 65 with 4 students. Post-test scores are presented in the following table:

Table 4.4
Calculation of Post-Test Control Class

Post Test Control Class			
No.	Score	Frequency	Mean
1.	60	0	73,25
2.	65	4	
3.	70	5	
4.	75	6	
5.	80	4	
6.	85	1	
Σ		20	

2). Experimental Class Student Learning Outcomes

Before being given treatment, students are first given pre-test questions to determine students' initial abilities as many as 20 questions. The assessment was carried out using a scale of 100. After knowing the students' initial abilities, then the experimental class was given treatment by being taught using the Snowball Throwing cooperative learning model. At the last meeting students were given post-test questions to find out student learning outcomes as many as 20 questions with an assessment using a scale of 100.

Based on the results of the attachment calculation it is known that the pre-test scores in the experimental class had the

highest score of 80 for 3 students and the lowest score of 30 with two students. Pre-test scores are presented in the following table:

Table 4.5
Calculation of Pre-Test Experimental Class

Pre Test Experimental Class			
No.	Score	Frequency	Mean
1.	60	3	69,75
2.	65	5	
3.	70	4	
4.	75	6	
5.	80	2	
6.	85	0	
Σ		20	

Based on the calculation results in the attachment, it is known that the post-test score in the experimental class has the highest score of 85 with 1 students and the lowest score is 65 with 4 students. Pre-test scores are presented in the following table:

Table 4.6
Calculation of Post-Test Experimental Class

Post Test Experimental Class			
No.	Score	Frequency	Mean
1.	65	0	77,25
2.	70	4	
3.	75	6	
4.	80	6	
5.	85	3	
6.	90	1	
Σ		20	

d. Descriptive Inferential

Before testing the hypothesis, the data must meet the assumption that the data must be normally distributed and homogeneous. Therefore, normally and homogeneity tests are provided.

1) Normality

The normality test of the data in this study used the *Shapiro-Wilk* test with a significant level of 0,05 in the experimental class and control class. The result of the calculation as below:

a) **Normality test of Pre-test Experiment and Control class**

Table 4.7

Shapiro-Wilk Statistic		
	Pretest_exp	Pretest_ctr
N	20	20
Mean	69,75	65,00
Std. Deviation	6,382	7,071
Minimum	60	50
Maximum	80	75
Variance	40,724	50,000
Test Statistic	,912	,938
Sig. (2-tailed)	,071	,224

Based on the calculation of SPSS Version 25 above. It showed that the test was normal distribution because the value was more than 0,05. The the value of sig. 2 tailed of the pre-test in experimental class got the significance $0,071 > 0,05$ and control class $0,224 > 0,05$.

b) **Normality test of Post-test Experiment and Control class**

Table 4.8

Shapiro-Wilk Statistic		
	Posttest_exp	Posttest_ctr
N	20	20
Mean	77,75	73,25
Std. Deviation	5,730	5,911
Minimum	70	,65
Maximum	90	,85
Variance	32,829	34,934
Test Statistic	,917	,918
Sig. (2-tailed)	,085	,090

Based on the calculation of SPSS Version 25 above. It showed that the test was normal distribution because the value was more than 0,05. The the value of sig. 2 tailed of the post -test in experimental class got the significance $0,085 > 0,05$ and control class $0,090 > 0,05$.

2) **Homogeneity**

The homogeneity test of the data in this study used the *Levene Statistic* test with a significant level of 0, 05 in the experimental class and control class. The result of the calculation as below:

a) **Homogeneity Test of Pre-Test Experiment and Control Class**

Table 4.9
Homogeneity of Pre-Test

Test of Homogeneity of Variances			
Result pretest of experiment & control class			
Levene Statistic	df1	df2	Sig.
,027	1	38	,870

Based on the calculation above, the researcher calculated that the data was homogeneously distributed because the result value of data was higher ($0,870 > 0,05$).

b) **Homogeneity Test of Post-Test Experiment and Control Class**

Table 4.10
Homogeneity of Post-Test

Test of Homogeneity of Variances			
Result posttest of experiment & control class			
Levene Statistic	df1	df2	Sig.
,033	1	38	,857

Based on the calculation above, the researcher calculated that the data was homogeneously distributed because the result value of data was higher ($0,857 > 0,05$).

3) **Test The Hypothesis**

After conducting the normality and homogeneity tests, the researcher calculated the T-Test by using the SPSS version 25 Program. It was used to compare the students' score that was divided into two groups which were taught by using different techniques. Class VIII A was taught by using Snowball Throwing Method and

Class VIII B was taught without using Snowball Throwing Method. The calculation result as bellow.

Table 4.11

Group Statistics					
	Class	N	Mean	Std. Deviation	Std. Error Mean
Result of the lesson	Experiment	20	77,75	5,730	1,281
	Control	20	73,25	5,911	1,322

Based on the table above the result of data analysis showed that the means of students score of experimental class was 77,75. While the mean of the students in the control class was 73,25.

Table 4.12
Independent Samples Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
Result of the lesson	Equal variances Assumed	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
	Equal variances Assumed	,033	,857	2,445	38	,019	4,500	1,841	,774	8,226
	Equal variances not Assumed			2,445	37,963	,019	4,500	1,841	,774	8,226

Based on the table above, it can be seen that the significance value (sig 2-tailed) is 0,019. This value is smaller than 0, 05 (sig 0,019 < 0, 05), so H₀ is rejected and H_a is accepted, so it can be concluded that there is significant different between the average learning outcomes of the control and experimental classes.
H₀ = There is no significant different score between

students who were taught by Snowball throwing method and who were not taught by Snowball throwing method.

Ha = There is a significant different score between students who were taught by Snowball throwing method and who were not taught by Snowball throwing method.

B. Discussion

Based on the results of data analysis conducted at MTs Mazro'atul Huda Wonorengo Demak which involved two classes, namely the experimental class VIII A and the control class VIII B. Before being given treatment, both classes were given a pre-test to determine the student's initial abilities. The average value for the experimental class is 69,75 and for the control, class is 65.00. Based on the homogeneity test, it was obtained that the two classes had the same variance. Because the results of the homogeneity test for the Pre-test Sample Group for the experimental class and control class are, 0,870.

After knowing the initial abilities of the two classes, students are then given different learning on the same material, namely the Daily Routines material. Students in the experimental class were taught using *Snowball Throwing* and students in the control class were taught using the *conventional learning model*. After being given different treatments in the experimental class and the control class, at the end of the meeting after the material was taught, students were given a post-test to determine student learning outcomes. The post-test average values in the experimental class were 77,75. While in the control class is 73.25. Based on the tests that had been carried out through the post-test given the same or homogeneous. Because the homogeneity test for the post-test sample group of the experimental class and the control class is 0.857.

Based on the previous hypothesis testing, the result of t test was Sig. (2-tailed) = 0,019 < 0,05, At a significant level of significance = 0.05 It can be concluded that Ha is accepted or H0 is rejected, which means that the average learning outcomes using the *Snowball Throwing* are higher than the average learning outcomes using *conventional* at MTs Mazro'atul Huda Wonorengo Demak. Thus, the alternative hypothesis (Ha) which states that students' mastery of the English vocabulary of the daily routine theme taught using the *Snowball Throwing* is higher than that of students taught using the *conventional* at a significant level of 0.05.

In implementation the Snowball throwing Method, there are several things that must be considered. Teacher must be able to control the class because this method like a game, takes a long time to condition the class, the class would be noisy. This is in accordance with the Handayama Theory which contains. First, naughty students tend to be troublesome, second, The group leader who is not able to explain well is certainly an obstacle for other members to understand the material so it takes a lot of time for students to discuss the subject matter, third, It depends on the ability of students to understand the material so that what students master is only a little.⁶

After the implementation of the *Snowball Throwing* in the experimental class. The learning process was more active and fostered students' enthusiasm for learning because the teacher involved students in the learning taking place. It could be seen that the impact of the implementation Snowball Throwing Method is very well. Just like Students had the opportunity to develop thinking skills, and students are actively involved in learning. As supported by Handayama, with the implementation of the snowball throwing method, there are many advantages that we can get, including making the class more active in learning, and make students ready with various possibilities.⁷

Based on the results of data analysis that researcher found, it can be seen from several studies that are in line with researcher showing that the Snowball Throwing learning model is one of the learning models that has a significant effect on student learning outcomes, especially in the cognitive domain, it can be concluded that the *Snowball Throwing* can improve the students' vocabulary mastery in the theme daily routines at the eighth-grade students of MTs Mazro'atul Huda Wonorengo Demak.

It is supported a journal article by Dwi Sugiarti, Nurlaeli entitled "Effect of Snowball Throwing Model on The Student's Vocabulary Mastery at SMA Swasta Rakyat Pancur Batu".⁸ The result t-count = 9.26 and t-table = 1.68. (t- count > t-table 9.26 > 1.68). It means that Ho is rejected and Ha is accepted. The result of this research is had a

⁶ Handayama, *Model dan Metode Pembelajaran Kreatif dan Berkarakter*.161

⁷ Handayama, *Model dan Metode Pembelajaran Kreatif dan Berkarakter*.161

⁸ Nurlaeli Dwi Sugiarti, "Effect of Snowball Throwing Model on The Student's Vocabulary Mastery at SMA Swasta Rakyat Pancur Batu," *Medan Resource Center 2*, no. 1 (2022).

significant effect of snowball throwing on student's vocabulary mastery. This can be seen that the results of learning with the use snowball throwing model had increased and higher than without snowball throwing models.

