CHAPTER IV
RESEARCH FINDINGS AND DISCUSSIONS

A. Research Results
1. Description of Research Object
a. Overview of Research Object

This research was carried out at MTs Mazro'atul Huda Wonorenggo Demak. Students from the VIII-A class, which served as the experimental class, and the VIII-B class, which served as the control class, served as the samples in this research. Prior to conducting the research, the researcher and the subject teacher had conveyed the research objectives and the material to be tested so that they had an overview and readiness to learn about the material to be conveyed, namely giving instruction material.

b. Vision and Mission of the School

The vision of Mazro'atul Huda Wonorenggo of MTs Mazro'atul Huda Wonorenggo, 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 Al-Qur'an.
3) Get used to performing circumcision 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 Technology.

c. **School Goals**

The purpose of MTs Mazro'atul Huda Wonorenggo, Demak Regency to achieve eight national education standards are as follows:

1) Improving the practice of Islamic Technology correctly.
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[1].

2. **Data Analysis**
   1) **Validity Test**

The degree to which an instrument satisfies its purpose is referred to as testing validity. When an instrument can be used to measure the desired outcome, it is said to be valid. For this reason, a validity test is required in order to determine the instrument's quality before continuing to study the subject.[2]

Before the questionnaire was distributed for research, the researcher first conducted a content validity test with 3 experts (an English lecturer), then the V index algorithm from Aiken was used to analyze the assessment data outcomes.

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[1] "Results of Data Documentation at Mts Mazro'atul Huda Wonorenggo Demak on February 12, 2023."

[2] Slamet Riyanto & Aglis Andhita Hatmawan, *Metode Riset Penelitian Kuantitatif Penelitian Di Bidang Manajemen, Teknik, Pendidikan, Dan Eksperimen* (Yogyakarta: Penerbit Deepublish, 2020), 63.

Table 4.1
Test of validity with Experts

Ques-tion	Rater			s1	s2	s3	∑s	n(c-1)	V	Ex.
	I	II	III							
Q_1	4	4	4	3	3	3	9	9	1	High
Q_2	4	4	4	3	3	3	9	9	1	High
Q_3	4	4	4	3	3	3	9	9	1	High
Q_4	4	4	4	3	3	3	9	9	1	High
Q_5	4	4	4	3	3	3	9	9	1	High
Q_6	3	4	3	2	3	2	7	9	0,7778	Medium
Q_7	4	3	4	3	2	3	8	9	0,8889	High
Q_8	3	4	3	2	3	2	7	9	0,7778	Medium
Q_9	4	4	4	3	3	3	9	9	1	High
Q_10	4	4	4	3	3	3	9	9	1	High
Q_11	4	4	4	3	3	3	9	9	1	High
Q_12	4	4	4	3	3	3	9	9	1	High
Q_13	3	3	3	2	2	2	6	9	0,6667	Medium
Q_14	4	4	4	3	3	3	9	9	1	High
Q_15	4	4	4	3	3	3	9	9	1	High
Q_16	4	4	4	3	3	3	9	9	1	High
Q_17	4	4	4	3	3	3	9	9	1	High
Q_18	4	4	3	3	3	2	8	9	0,8889	High
Q_19	4	4	4	3	3	3	9	9	1	High
Q_20	4	4	4	3	3	3	9	9	1	High
Q_21	4	4	4	3	3	3	9	9	1	High
Q_22	4	4	4	3	3	3	9	9	1	High
Q_23	4	4	4	3	3	3	9	9	1	High
Q_24	3	3	4	2	2	3	7	9	0,7778	Medium
Q_25	4	4	4	3	3	3	9	9	1	High

Based on the analysis of the V index formula from Aiken with the result criteria V index of 0,4 to 1, The lowest content validity score for each instrument item was 0,6 while the highest was 1. So, it can be concluded that based on the assessment of the expert (teacher) all The developed items already have content validity

Table 4.2
Test of validity Eighth Grade

No.items	R table	R hitung	Sig	Result
Soal1	0,456	0,549	0,015	Valid
Soal2	0,456	0,781	0,000	Valid
Soal3	0,456	0,632	0,004	Valid
Soal4	0,456	0,521	0,022	Valid
Soal5	0,456	0,549	0,015	Valid
Soal6	0,456	0,513	0,025	Valid
Soal7	0,456	0,619	0,005	Valid
Soal8	0,456	0,714	0,001	Valid
Soal9	0,456	0,744	0,000	Valid
Soal10	0,456	0,513	0,025	Valid
Soal11	0,456	0,619	0,005	Valid
Soal12	0,456	0,525	0,021	Valid
Soal13	0,456	0,619	0,005	Valid
Soal14	0,456	0,614	0,005	Valid
Soal15	0,456	-0,164	0,503	Tidak Valid
Soal16	0,456	-0,202	0,407	Tidak Valid
Soal17	0,456	0,730	0,000	Valid
Soal18	0,456	0,619	0,005	Valid
Soal19	0,456	-0,226	0,353	Tidak Valid
Soal20	0,456	0,476	0,040	Valid
Soal21	0,456	0,521	0,022	Valid
Soal22	0,456	0,476	0,040	Valid

No.items	R table	R hitung	Sig	Result
Soal23	0,456	0,163	0,506	Tidak Valid
Soal24	0,456	0,730	0,000	Valid
Soal25	0,456	0,587	0,008	Valid

The validity test's outcome was displayed in the table above. If the value of r count was greater than or equal to r table, it was valid, and if it was less than r table, it was invalid. The product-moment table serves as the basis for the r table's value, which has a significance of 5% (0,05). R table is 0,456. There were 21 valid items in addition to the four that were invalid (items 15, 16, 19, and 23). The researcher selected twenty items from the valid ones for the pre- and post-tests.

Table 4.3
Questionnaire of validity

Ques tion	Rater			s1	s2	s3	∑s	N (c-1)	V	Ex.
	I	II	III							
Q_1	5	5	5	4	4	4	12	12	1	High
Q_2	5	5	5	4	4	4	12	12	1	High
Q_3	4	4	5	3	3	4	10	12	0,8333	High
Q_4	5	4	5	4	3	4	11	12	0,9167	High
Q_5	5	5	5	4	4	4	12	12	1	High
Q_6	5	5	5	4	4	4	12	12	1	High
Q_7	4	5	5	3	4	4	11	12	0,9167	High
Q_8	5	5	4	4	4	3	11	12	0,9167	High
Q_9	4	5	5	3	4	4	11	12	0,9167	High
Q_10	4	4	5	3	3	4	10	12	0,8333	High

Based on the analysis of the V index formula from Aiken with the result criteria V index of 0,4 to 1, the lowest score for each instrument item's content validity was 0,6, and the highest was 1. So, it can be concluded that based on the assessment of the expert

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(teacher) all the developed items already have content validity.

2) **Reliability Test**

The impact of such irregular estimation errors on score consistency is the focus of reliability.[3] The ideal test should be valid and trustworthy. The researcher also used SPSS 25 for Windows in this study to determine the instruments' reliability.

Following the completion of the learning process, questions for student motivation are presented at the meeting's conclusion. Following are the results of student response questionnaires filled in by 20 students in class VIII-A who applied the Talking Stick learning model after participating in learning on the instruction of giving material, namely:

Table 4.4
Test of Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
.867	25

According to the calculation above, the reliability of the instruments used by students is 0,867. The reliability value is examined in the r table at a significance level of 0.60. The test is reliable because the value of the r index reliability is greater than or equal to (0,867) than the value of the r table (0,456).

3) **Descriptive Statistics**

Independent samples t-test research data is this by distributing the pretest, treatment, and posttest to 20 graders from class VIII A and VIII B

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[3] Yusrizal, *Pengukuran Hasil Evaluasi Dan Proses Belajar* (Yogyakarta: Pale Media Prima, 2016), 146.

of MTs Mazroatul Huda Wonorenggo Demak. The SPSS application is used to process the data. Identifying is the first step the independent t-test 2 the testing requirements must be performed, namely: testing normality, homogeneity, then independent samples t-test. For both experimental and control groups, these tests are used. Also, the test result will be the introduction as follows. The researchers conducted an independent sample test study conducted by distributing a pretest, treatment, and 20 people in the posttest students from MTs Mazro'atul Huda Wonorenggo Demak's classes VIII-A and VIII-B. Research data consists of scores and descriptive statistical analysis of the two experiments and the controlled classes are as follows.

a) Control Class Student Learning Outcomes

In the control group, before treatment, students were first asked 20 questions. The rating is on a scale of 100. Once the instructor is aware of the students beginning abilities, the control class students learn conventionally. At the end of the class, students took a post-test that consisted of 20 questions, each of which had a score out of 100.

The pre-test scores of the control class were 1 student with the highest score of 75 points and 1 student with the lowest score of 50 points, according to the calculation results in the appendix. The pre-test results are shown in the table below:

Table 4.5
Calculation of Pre-Test Control Class

Pre-Test Control Class			
No.	Score	Frequency	Mean
1.	50	1	
2.	55	3	
3.	60	7	62,25

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Pre-Test Control Class			
No.	Score	Frequency	Mean
4.	65	5	
5.	70	3	
6.	75	1	
∑		20	

According to the calculations in the attachment, the experimental class' post-test score ranged from 65 with 2 students to 85 with 3 students, with 85 as the highest score. The following table displays post-test results:

Table 4.6
Calculation of Post-Test Control Class

Pre-Test Control Class			
No.	Score	Frequency	Mean
1.	65	2	
2.	70	6	
3.	75	5	
4.	80	4	73,5
5.	85	3	
6.	90	0	
∑		20	

b) **Experimental Class Student Learning Outcomes**

Students are given pretest questions to determine the initial condition of up to 20 questions before receiving treatment. A scale of 100 is used for evaluation. The experimental class was then treated by being instructed in the use of a talking stick cooperative learning approach after first learning about the beginning state of the students. Final meeting students receive post-test questions with up to 20 questions, each with a rating on a scale of 100, to evaluate the effectiveness of the actions given to them.

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The pre-test scores of the control class were two students with the highest score of 75 points and three students with the lowest score of 55 points, according to the calculation results in the appendix. The pre-test results can be seen in the table below:

Table 4.7
Calculation of Pre-Test Experimental Class

Pre-Test Control Class			
No.	**Score**	**Frequency**	**Mean**
1.	50	0	
2.	55	3	
3.	60	6	
4.	65	6	63,75
5.	70	3	
6.	75	2	
$\sum$		20	

According to the calculations in the attachment, the experimental class' post-test score ranged from 65 with 2 students to 85 with 3 students, with 85 being the highest score. The following table displays post-test results:

Table 4.8
Calculation of Post-Test Experimental Class

Pre-Test Control Class			
No.	**Score**	**Frequency**	**Mean**
1.	60	0	**79,25**
2.	65	1	
3.	70	2	
4.	75	4	
5.	80	6	
6.	85	6	
$\sum$		20	

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4) **Descriptive Inferential**

Before evaluating hypotheses, the data must fulfill the requirement that they be homogeneous and regularly distributed. As a result, the homogeneity test typically supplies.

a) **Normality**

The *Shapiro-Wilk* test was used to determine if the data in this study were normal, with a significant level of 0,05 for both the experimental class and the control class. The calculation's outcome is as follows:

Table. 4.9
Normality Test of Pre-Test Experimental and Control Class

Shapiro-Wilk Statistic		
	Pretest_Exp	Pretest_Ctr
N	20	20
Mean	63,75	62,25
Std. Deviation	6,043	6,172
Minimum	55	50
Maximum	75	75
Variance	36,513	38,092
Test Statistic	,919	,949
Sig. (2-tailed)	,095	,351

based on the above SPSS Version 25 calculation. Because the value was greater than 0,05, it demonstrated that the test followed a normal distribution. The worth of sig 2 tailed off the pre-test in the experimental class had a significance of 0, 095 $> 0,05$, while the control class had a significance of 0,351 $> 0,05$.

Table 4.10
Normality Test of Post-Test Experimental and
Control Class

Shapiro-Wilk Statistic		
	Posttest_Exp	Posttest_Ctr
N	20	20
Mean	79,25	75,00
Std. Deviation	6,340	6,283
Minimum	65	65
Maximum	90	85
Variance	40,197	39,474
Test Statistic	,927	,916
Sig. (2-tailed)	,138	,084

Based on the above SPSS version 25 calculation. Because the value was greater than 0,05, it demonstrated that the test followed a normal distribution. The worth of sig. In the experimental class, the two-tailed post-test had a significance of 0,138 > 0,05, while in the control class, it was 0,84 > 0,05.

b) **Homogeneity**

Levene's statistical test with a significance level of 0.05 in both the experimental and control groups for the homogeneity test of the data used in this study. the calculated result is as follows:

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Table 4.11
Homogeneity Test of Pre-Test

Test of Homogeneity of Variances			
Result pretest of experiment & control class			
Levene Statistic			
,008	1	38	,927

The researcher determined that the data were homogeneously distributed based on the calculation mentioned above because the result value was greater (0,927 > 0,05).

Table 4.12
Homogeneity of Post-Test

Test of Homogeneity of Variances			
Result posttest of experiment & control class			
Levene Statistic			
,000	1	38	,983

Because the result value of the data was greater (0,983 > 0,05), the researcher determined from the calculation above that the data was homogeneously distributed.

c) **Test the Hypothesis**

The researcher used the SPSS version 25 program to calculate the T-Test after conducting the normality and homogeneity tests. It was used to compare the test results of students who were distributed into two groups and taught using different methods. Class VIII B received teaching without the talking stick approach while class VIII A received teaching using the method. The computation's findings are listed below.

Table 4.13

	Class	N	Mean	Std. Deviation	Std. Error Mean
			Group Statistics		
Result of the lesson	Experiment	20	79,25	6,340	1,418
	Control	20	75,00	6,283	1,405

According to the data analysis results shown in the table above, the experimental class's mean student score was 79,25, whereas the control class's mean was 75,00.

Table 4.14
Independent Sample Test

		Levene's Test for Equality of Variances		T-test for equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Result of the lesson	Equal variances Assumed	,000	,983	2,129	38	,040	4,250	1,996	210	8,290
	Equal variances not Assumed			2,129	37,997	,040	4,250	1w,996	210	8,290

According to the above table, the significance value (sig. 2-tailed) is 0,040. It may be concluded that there is a substantial difference between the average learning outcomes of the control and experimental classes because this value is less than 0,05 (sig 0,040 < 0,05), which means that H0 is rejected and Ha is accepted.

H0= There is no substantial disparity in scores between students who were instructed

using the talking stick approach and those who were not instructed using the talking stick method.

H0= There is a statistically distinct score between students who were educated via the talking stick technique and those who were not educated via the talking stick method.

d) **Questionnaire Data Analysis**

The questionnaire is a list of questionnaires that must be filled in by the response to be measured (respondents).[4] In the questionnaire research on students' motivation with 20 respondents and 10 questions, The following table shows the outcome:

Table 4.15
Result of Questionnaire Data

No	Number of Questionnaire Scores Frequency (F)					Total Percentage of Questionnaire Scores (%)				
	SS	S	KS	TS	STS	SS	S	TS	KS	STS
1	17	3	0	0	0	85	15	0	0	0
2	16	4	0	0	0	80	20	0	0	0
3	14	6	0	0	0	70	30	0	0	0
4	16	2	2	0	0	80	10	10	0	0
5	16	3	1	0	0	80	15	5	0	0
6	18	2	0	0	0	90	10	0	0	0
7	14	4	2	0	0	70	20	10	0	0
8	14	5	1	0	0	70	25	5	0	0
9	17	3	0	0	0	85	15	0	0	0
10	16	4	0	0	0	80	20	0	0	0
Total	158	36	6	0	0	790	180	30	0	0
Mean (n=10)	15.8	3.6	1.5	0	0	79	18	3	0	0

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[4] Yusrizal, *Pengukuran & Evaluasi Hasil Dan Proses Belajar* (Yogyakarta: Penerbit Pale Media Prima, 2016), 250.

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Based on student feedback provided by 20 students regarding the talking stick method for learning. the scores for the following criteria were calculated: strongly agree (SS)= 15.5, agree (S)= 3.6, disagree (KS)=1.5, don't agree (TS)=0, strongly disagree (STS)=0.

It can be said that in this instance, students are responding and showing interest, which is incredible for the talking stick teaching method. This information is supported once more by the average output criteria response percentage count, which showed that 79% of respondents strongly agreed, 18% agreed, and 3% disagreed. It turns out that the talking stick method of imparting teaching can boost student learning outcomes by motivating and enthusiastic students about their studies. The percentage of students who responded to questionnaires about the talking stick approach can be observed in pict. 4.1.
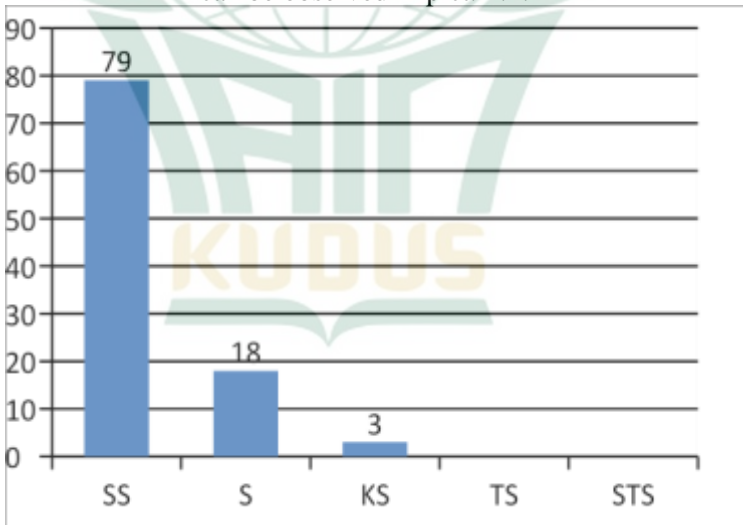
Pict. 4.1 Questionnaire Data Results Table Diagram

B. Discussion

Based on the outcomes of a data analysis carried out at MTs Mazro'atul Huda Wonorenggo Demak with two groups: the experimental class VIII A and the control class VIII B. Both classes took a pre-test to evaluate the students' beginning skills before begin treatment. The control class's average value is 62.25, while the experimental class' average is 63.75. It was determined by the homogeneity test that the two classes t the same value and variant. Because both the experimental class and the control class' homogeneity test scores for the Pretest Sample group were 0.927.

The students are then provided varied learning on the same subject, which is the topic of giving instruction, after the initial skills of the two classes have been determined. Talking sticks were used to teach the experimental class's students, whereas conventional methods of teaching were used with the control group. Students are given a post-test to evaluate their learning results after receiving different treatments in the experimental class and the control class. Students were given a motivating questionnaire to fill out at the conclusion of the meeting to evaluate their level of motivation. The experimental class's posttest average is 79,25. While 73,5 is in the control class. The final test, which is given identically or similarly, is based on the tests that have been conducted. As a result of the posttest sample group homogeneity test for the experimental class and control class being 0.983.

The t-test returned Sig on the basis of the previous hypothesis testing. (2-followed) = 0.040< 0.05, At an importance level = 0.05, It very well may be reasoned that Ha is accepted or H0 is rejected, where it implies that the typical learning result used a talking stick is higher than the typical learning result used conventional at MTs Mazro'atul Huda Wonorenggo Demak. As a result, the alternative hypothesis (Ha) states that, at a significant level of 0.05, students who receive teaching using the talking stick method are more motivated to learn the subject than students who receive teaching using conventional methods.

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Giving a questionnaire after ongoing learning is to see the effect of that method used by researchers by using a talking stick learning method. After using the talking stick method of teaching in class VIIIA, students fill out sheet answers to the statements in the questionnaire that has been provided. Students have known what they're going through during the application of learning methods talking stick, and understand the benefits of talking stick learning method the. It can be seen in pict 4.1 the highest number or category Strongly agree (SS)= 79%, agree (S)= 18, disagree (KS)= 3%. The results of the questionnaire identify that after using the talking stick method, students are motivated to learn.

There is a talking stick method in implementation. A few things to consider. The teacher must be able to do this control class because like a game, this method takes a long time. To regulate the class, the class will be noisy. This is following the Muhsyanur Theory which contains. First, some students feel tense preparing to receive sticks and explain the material. Second, students who are not ready, may not be able to explain the material to the fullest, and third, sometimes the class atmosphere becomes noisy.[5]

After making the talking stick experimental class. The learning was more active and increased the desire of students to learn because the teacher involved students in the ongoing learning process. It is certain that using the talking stick method has a very positive influence. Such students have the opportunity to develop thinking skills, motivate students to think critically and students are actively involved in learning. According to Muhsyanur, there are numerous advantages to using the talking stick method, including training students to be responsible; motivating students to easily and quickly understand the material; training students to learn independently and

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[5] Muhsyanur, *Pemodelan Dalam Pembelajaran* (Bandung: Forum Silaturahmi Doktor Indonesia (FORSILADI),154.

cooperatively; and training students' courage to express opinions.[6]

Based on the outcomes of the data analysis discovered by researchers, it is clear from several studies that are consistent with the researchers' observations that the talking stick learning method is one of learning strategies that can increase learning motivation in order to have a significant impact on student learning outcomes, particularly in the cognitive domain. It can therefore be concluded that talking stick can increase student learning motivation on the subject of giving instruction classes.

It is supported a journal article by Jumiati, Yeza Febriani, and Silvia Rita entitled "Pengaruh Pembelajaran Metode Kooperatif Terhadap Motivasi Belajar Siswa Pada Materi Besaran dan Satuan Kelas VII SMP N 2 Kepenuhan".[7] The result t-count = 0,9915 and t-table = 0,413. (t- count > t-table 9.26 > 1.68). In other words, Ha is accepted while Ho is shunned. The study's findings indicate that the talking stick significantly affects students motivation to learn.

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[6] Muhsyanur, *Pemodelan Dalam Pembelajaran* (Bandung: Forum Silaturahmi Doktor Indonesia (FORSILADI),154.

[7] Silvia Rita Jumiati, Yeza Febriani, "Pengaruh Pembelajaran Kooperatif Metode Talking Stick Terhadap Motivasi Belajar Siswa Pada Materi Besaran Dan Satuan Kelas VII SMPN 2 Kepenuhan," *Jurnal Mahasiswa Prodi Fisika UPP*, 2016, 7.