



The Effect of The Talking Stick Method on the Scientific Debate Skills of 10th Grade Students at Sirenja State High School 2

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Abstract

This study aims to determine the effect of the talking stick method on the scientific debate skills of 10th-grade students at Sirenja State High School 2. The type of research used is quantitative research. The method employed in this study is the quantitative correlation method. The data collection techniques used in this study are: observation, testing, and documentation. The data analysis techniques in this study are the normality test, homogeneity test, and correlation test. The results of teacher observations indicate that the talking stick method achieved a success rate of 85.71%. Observations of student activities also showed high results, with classical learning mastery reaching 91.67%. Validity tests for all instruments indicated validity, and the reliability of the instruments fell into the "moderately reliable" category ($\alpha = 0.606$). The results of the normality test showed a significance value of 0.036 at a significance level (α) of 0.05, indicating a normal distribution, while the homogeneity test showed a significance value of 0.213, indicating homogeneous variance, meaning the data met the requirements for analysis. Based on the Pearson correlation test, a value of $r = 0.365$ was obtained with a significance of $0.000 < 0.05$, indicating a significant and positive relationship between the talking stick method and students' scientific debate skills, although the relationship falls into the moderate category. Thus, it can be concluded that the talking stick method significantly influences students' scientific debate skills, particularly in the aspects of speaking confidence, argument accuracy, and teamwork ability. This study recommends the use of the talking stick method as an alternative learning strategy to enhance students' critical thinking skills in scientific debate activities.

1. Introduction

The *talking stick* method is a learning process with the help of a stick. (Kurniasi, 2023) this method encourages students to dare to express their opinions and trains students to speak. The *talking stick* method can increase the participation of every student in scientific debates by providing equal opportunities to speak, it is hoped that each student can express his or her opinion more confidently, as well as hone his speaking and argumentative skills. Although this method is designed to increase the involvement of all students, the reality is that some students may feel overwhelmed or find it difficult to speak in a structured manner in the context of scientific debate (Ahmad 2021).

The *talking stick* method can support a teaching goal, because in teaching a method is needed that can help students develop thinking activities and creativity. One of them is the *talking stick* method. Because this learning method can create students' activeness in acquiring intellectual skills, attitudes and motor skills and the results can cause positive responses, can connect better relationships with friends, in addition to being able to instill an attitude of confidence and responsibility (Mustafa 2024).

In the *talking stick* method, it is closely related to the ability to speak because this method is designed to provide opportunities for each student to speak in turn, thus practicing communication skills. Here are some of the connections: (1) increasing confidence, (2) practicing fluency in speaking, (3) developing argumentation skills, (4) increasing concentration and active listening, (5) practicing good language structure.

The *talking stick* method has a significant impact on speaking skills, as evidenced by the findings of Mustafa's (2024) study titled "The Effect of the *Talking Stick* Model on the Speaking Skills of Fourth-Grade Students at SDIT Rauhaturrahmah in Pekanbaru," which showed that the *talking stick* method encourages students to speak confidently in front of their peers, thereby fostering effective communication. The *talking stick* method has been proven to have a positive effect on students' speaking skills because it can improve their communication skills and self-confidence when speaking in front of the class.

The conclusion of the results of Mustafa's research (2024) shows that learning using the *talking stick* method on students' scientific debate skills is "The *talking stick* method effectively improves students' scientific debate skills by encouraging active participation, strengthening communication skills, and increasing confidence in delivering arguments. By giving each student, the opportunity to speak in turn, this method not only enriches the learning experience, but also helps students develop the critical and analytical thinking skills necessary in scientific debate."

The opportunity for each student to speak in turn, thus practicing communication skills. Here are some of the connections: (1) increasing confidence, (2) practicing fluency in speaking, (3) developing argumentation skills, (4)

increasing concentration and active listening, (5) practicing good language structure.

Learning the science debate is very beneficial for students. Through debate learning, students are required to think critically in response to a problem or issue that develops. Nuraeni (2022), stated that the most important skill in learning to debate is the ability to think critically, some debates can improve students' ability in problem solving and innovative thinking. In addition, debate can help students build relationships between words and ideas that make concepts more meaningful the results show that critical thinking skills are identified in the four aspects: focus, reason, conclusion, and clarity.

The presentation of arguments in the debate must be supported by concrete evidence to strengthen the opinion. The purpose of the debate is to explore the reasons from the point of view of each party involved in the debate, both the affirmation (pro) and the opposition (opposition). In learning activities, students practice responding to issues in the debate according to their respective roles, both as an affirmation team and an opposition team (Pratikno, Mujiyanto, & Ivana, 2021).

Based on the results of observations on the ability of scientific debate, students in class X of SMA Negeri 2 Sirenja have not been able to convey arguments, so it is expected that they can develop the ability to think to listen actively, understand the opponent's point of view, and respond with relevant arguments. Therefore, it is especially important in scientific debate, where the ability to respond appropriately and critically to the opponent's arguments is key. In practice, although this method aims to encourage better listening, the reality shows that it is not pseudo-participants who can really focus and absorb the information provided.

Based on an interview with Abdian Rahman, S.Pd., Gr as an Indonesian language teacher in class X of SMA Negeri 2 Sirenja, there are still many students who have not been able to master the basic competencies of constructing problems/issues, arguments point of view, and oral conclusions in debates. The problems faced by students in debating are first, students' confidence is still low to speak in front of the class. Second, students' speaking skills in terms of language and non-language are still low, and third, students still have difficulty in formulating opinions orally.

The researcher intends to raise the *talking stick* method as an alternative to solving the problem of students' low speaking ability in conveying an idea. The *talking stick* method basically aims to foster students' courage in speaking and cultivate positive characters, including integrity, confidence, discipline, leadership, achievement-oriented, polite and polite, communicative, and friendly characters.

Based on the description above, the researcher is interested in carrying out a study entitled "The Influence of the *Talking Stick* Method on the Scientific Debate Ability of Class X Students of SMA Negeri 2 Sirenja".

2. Method

This study uses a quantitative method. Quantitative research is research that emphasizes the analysis of numerical data (numbers). Basically, the quantitative approach is carried out on inferential research (hypothesis testing) and the conclusion of the results is on a probability of false hypothesis rejection of zero (nil). With the quantitative method, the difference in the significance of the relationship between the variables studied will be obtained.

The population in this study is the entire class X of SMA Negeri 2 Sirenja which totals 68 students, namely classes A, B & C.

The sample in this study is class X A as many as 36 students using *purposive sampling techniques* carried out in a directed manner and in accordance with the research objectives.

The location of this research is at SMA Negeri 2 Sirenja, The location was chosen because the school provides support for research activities and is open to the application of innovative learning methods. This is an important supporting factor in the implementation of research.

The type of data used in this study is quantitative data that is correlated. The data collected is in the form of observations, tests, and documentation.

The main instrument in quantitative research is the researcher himself. A research instrument is a tool or means used by researchers to collect the data needed in research. This instrument functions to measure the variables that are being researched in a systematic and structured way, in order to obtain data for further analysis, a research instrument is needed 1) teacher observation sheet, 2) student observation sheet, and 3) student assessment rubric

Instrument tests are carried out to find out whether the instrument to be applied in schools is feasible or not, the condition that an instrument is suitable for use is valid or commonly called valid to measure a variable that is being researched appropriately. In this study, the instruments tested were:

1. Validity Test

The Validity Test in this study refers to the extent to which the instruments used to measure students' scientific debating ability whether the methods applied have an impact on students' scientific debating abilities.

With the formula:

$$r = \frac{N \sum(XF) - (\sum X) (\sum F)}{\sqrt{[N \sum X^2 - (\sum X)^2] [N \sum F^2 - (\sum F)^2]}}$$

Description:

r_{xy} = The correlation coefficient between the variables X and Y

n = The number of test takers

$\sum x$ = Total item score

$\sum y$ = Total score

$\sum xy$ = The sum multiplied by the item's score by the total score

$\sum x^2$ = Total number of item scores

$\sum y^2$ = Total number of total scores

2. Reliability Test.

Reliability test is a tool to measure or test the reliability of an instrument which is an indicator of a variable or construct to determine consistency. Reliability testing is calculated using *the alpha* formula as follows:

$$r = \frac{[k]}{k-1} \frac{[\sum ab^2]}{1 - \sum at^2}$$

Description:

r = reliability

k = many questions

= total grain variance $\sum ab^2$

= variance total $\sum at^2$

Data analysis is an effort made by systematically searching and compiling data obtained from observation results so that the data is easy to understand, and the findings can be informed to other parties, as well as the formulation of conclusions that can be understood both by researchers and by other readers.

1. Normality Test

This test is the validity of the sample which aims to let the researcher know whether the data is normally distributed or not. The normality test in this study uses the Liliefors test with a significance level (α) = 0.05 (5%), $L_{cal} = \text{Max} f(z) - S(z) | L_{table} = L(\alpha n)$ has an impact on students' scientific debate skills.

2. Homogeneity Test

To find out whether the two groups used have the same condition, a homogeneity test was carried out. The homogeneity test is carried out by the Fisher test with the Formula:

$$F = \text{and } S = \frac{S_1^2}{S_2} \frac{N \sum X_1^2 - \sum X_2^2}{n(N-1)}$$

1. Taraf signifies (a) = 0.05
2. Testing criteria

H0 = if the significance value > 0.05 then Ho is accepted or both are homogeneous data

H1 = if the significance value < 0.05 then H1 is rejected or both data are inhomogeneous

3. Correlation Test

Correlation Test (Inferential Statistics) to find out the relationship between *the talking stick* method (Independent variable X) and the dependent ability of Y), The correlation formula used is:

$$r = \frac{N \sum(XF) - (\sum X) (\sum F)}{\sqrt{[N \sum X^2 - (\sum X)^2] [N \sum F^2 - (\sum F)^2]}}$$

Description:

R = Correlation coefficient

N = Number of respondents (sample)

X = Independent variable score (*Talking Stick Method*)
Y = Dependent variable score (Ability to debate scientific Students)

$\sum XY$ = Total multiplication between X and Y scores

3. Result

The results of this study explain the data from the observation results between the author and the informant, as well as the results of the observations made by the author in accordance with the research objectives. The results of this study are as follows:

1.1 Teacher's Observation Results

The results of observation of teacher activities in the *talking stick method* in class X are as follows.

Tabel 1.1 Results of Teacher Observations of the

Talking Stick Method in Class X

No	Observed Aspect	Assessment Score			
		1	2	3	4
1.	Teacher explains rules game <i>Talking Stick</i>				√
2.	The <i>Talking Stick</i> is available and used correctly			√	
3.	Timeliness timing Teacher in stopping the movement the (<i>talking stick</i>).			√	
4.	The teacher's role in the session (<i>talking stick</i>).			√	
5.	The teacher uses <i>the talking stick</i> during discussion				√
6.	The <i>talking stick</i> activity aligns with learning objectives			√	
7.	Reflection and conclusion				√
Total Score		24			
Maximum Score		28			
Score (%) = Total Score / Maximum Score × 100%		85,71%			

Based on Table 4.1 above, the teacher scored 24 out of a maximum score of 28. The percentage of the teacher's teaching activity score is 85.71%.

1.2 Student Observation Results

The results of the observation of student activities in the *talking stick* method in Class X are as follows

Table 1.2 Results of Student Observations in the Method

Talking Stick in Class X (Variable Y)

Initial	Active	Clarity of Speech	Accuracy Argumentative	Courage to Express	Ability to Respond to Arguments	Teamwork	Critical Think	Total Score	Score (%)
AR	4	2	2	3	3	3	3	20	71,43
ANA	4	4	3	3	3	4	3	24	85,71
A	4	4	3	3	4	4	3	25	89,29

A	4	4	3	3	4	4	3	25	89,29
AF	4	4	3	3	4	4	3	25	89,29
AS	4	3	2	3	3	3	3	21	75
A	4	4	3	3	3	3	3	23	82,14
ZA	4	4	3	3	4	3	3	24	85,71
DS	4	2	3	3	3	3	3	21	75
EM	4	4	3	3	3	3	3	23	82,14
FJP	4	4	3	4	3	3	3	24	85,71
KI	4	4	3	3	4	3	3	24	85,71
MRM	4	4	3	3	3	3	3	23	82,14
NA	4	4	3	4	3	3	3	24	85,71
NO	4	4	4	4	3	3	3	25	89,29
NA	4	4	4	4	3	3	3	25	89,29
RP	4	3	3	3	2	2	3	20	71,43
RA	4	4	3	3	3	2	3	22	78,57
RS	4	3	3	3	3	3	3	22	78,57
RI	4	2	3	3	3	3	3	21	75
RSJ	4	2	3	4	3	3	3	22	78,57
SA	4	4	4	4	4	3	3	26	92,86
MA	4	4	2	3	3	3	3	22	78,57
HA	4	3	2	3	3	3	3	21	75
MI	4	4	2	3	3	3	3	22	78,57
MJ	4	3	3	3	3	3	3	22	78,57
SAM	4	3	3	3	3	3	3	22	78,57
LI	4	3	3	3	3	3	4	23	82,14
RI	4	3	3	3	3	3	3	22	78,57
RI	4	3	3	3	3	3	3	22	78,57
CS	4	3	3	3	3	3	3	22	78,57
SI	4	4	3	3	3	3	3	23	82,14
CA	4	4	2	3	3	3	3	22	78,57
AK	4	3	2	2	3	2	3	19	67,86
AL	4	4	3	3	3	3	3	23	82,14
WS	4	3	2	3	3	3	3	21	75
	Highest Score								92,86
	Lowest Score								67,86
	Number of Students								36
	Number of Students Completed								33
	Total Student Acquisition Score								815
	Classical Student Learning Completeness (KBSK)								91.67%

Based on table 4.2 above, it shows the results of the student's *talking stick method* of 91.66%. As for the scores of 36 students, there were 33 students who completed the KKM and 3 students did not complete.

1.3 Results of Student Assessment Rubric

The results of the assessment rubric on student activities in the *talking stick method* in class X are as follows:

Table 1.3 Rubric for Assessment of Grade X A Students

Initial	Understanding of Material	Mastery of Arguments	Communication Skills	Collaboration and Teamwork	Emotional Control	Total Score Obtained	Maximum Score	Standard Score (%)
AR	3	3	3	3	3	15	20	75.00
ANA	4	3	3	4	3	17	20	85.00
A	3	3	4	3	3	16	20	80.00
A	4	3	3	3	3	16	20	80.00
AF	4	4	4	3	3	18	20	90.00
AS	3	3	3	3	3	15	20	75.00
A	3	3	3	3	3	15	20	75.00
ZA	3	4	4	3	3	17	20	85.00
DS	3	3	3	3	3	15	20	75.00
EM	4	3	3	3	3	16	20	80.00
FJP	4	3	4	3	3	17	20	85.00
KI	3	3	4	3	3	16	20	80.00
MRM	3	3	4	3	3	16	20	80.00
NA	4	4	4	4	3	18	20	90.00
NO	4	3	4	3	3	18	20	85.00
NA	4	3	4	3	3	17	20	85.00
RP	3	3	3	3	3	15	20	75.00
RA	4	3	3	3	3	16	20	80.00
RS	3	3	3	3	3	15	20	75.00

RI	3	2	3	3	3	14	20	70.00
RSJ	3	3	3	3	3	15	20	75.00
SA	4	4	4	3	3	18	20	90.00
MA	3	3	3	3	3	15	20	75.00
HA	4	3	2	3	3	15	20	75.00
MI	3	2	3	3	3	14	20	70.00
MJ	3	3	3	3	3	15	20	75.00
SAM	3	3	3	3	3	15	20	75.00
LI	3	2	3	3	3	14	20	70.00
RI	4	3	3	3	3	16	20	80.00
RI	3	3	3	3	3	15	20	75.00
CS	3	3	3	3	3	15	20	75.00
SI	3	3	3	3	3	15	20	75.00
CA	3	3	3	3	3	15	20	75.00
AK	3	2	2	3	3	13	20	65.00
AL	3	3	3	3	3	15	20	75.00
WS	3	3	3	3	3	15	20	75.00
	Highest Score							90.00
	Lowest Score							65.00
	Number of Students							36
	Number of Students Completed							32
	Total Student Acquisition Score							562
	Classical Student Learning Completeness (KBSK)							88.88%

Based on table 4.3 Recapitulation of assessment rubric scores involving 36 students, the highest total score per individual was 32 people and the lowest score was 4 people. Overall, the average score obtained by students is 88.88% of the maximum score of 20. Regarding the data that has been attached above, several tests will be carried out, namely: 1) Validity Test and Reliability Test. 2) Data analysis tests, namely Normality Test and Homogeneity Test. 3) Correlation test.

1.4 Validity Test and Reliability Test

1.1.4 Validity Test

Azwar (2016:69) stated "that validity comes from the word validity which means the extent to which the measuring instrument is accurate and precise in carrying out its measurement task. The validity calculation uses a correlation formula known as the product moment correlation formula. The calculation of the validity of the instrument is based on the comparison between the r calculation and r of the table.

Description: (1) If r is greater than r table (r is calculated $>$ r table), then the question is considered valid. (2) If r counts less than r table, then the question is considered lost".

Tabel 1.4 (Validity Results)

No Item	Calculated r	Table r	Notes
1	0,531	0,329	Valid
2	0,587	0,329	Valid
3	0,570	0,329	Valid
4	0,521	0,329	Valid
5	0,568	0,329	Valid
6	0,586	0,329	Valid
7	0,510	0,329	Valid

Source: SPSS Output

Based on table 1.4, the results of the validity test of the research instrument consisting of 7 questions (items) were declared valid. It is based on a comparison between r -count (coefficient correlation item) and r -table (critical value). For all question items (No. 1 to No. 7), the value of r -count is always greater than the constant r -table value of 0.329.

1.1.5 Reliability Test

The reliability test is only carried out on items of the observation sheet that are valid. Reliability coefficients at the level of 0.70 or more are acceptable as good reliability. Test the reliability of the instrument using the "Alpha Cronbach's" formula with the help of SPSS statistick to help complete the calculation. . The full reliability test results are presented in the following table:

Tabel 1.5 (Instrument Reliability Analysis Results)

Cronbach's Alpha	N of Items
0,606	7

Source: SPSS Output

Based on table 1.5 of the reliability test results in the table above, *Cronbach's Alpha* value is $0.606 \geq 0.70$, so it can be said that the research instrument has high reliability. (The full results of the analysis are presented in the appendix).

1.5 Hypothesis Analysis and Testing

1.1.6 Normality Test

The normality test carried out was to use *the Kolmogrov Smirnov* test with the criterion that the data is normally distributed if the *Kolmogrov SSmirnov value* has a probability value of more than 5% or 0.05. The results of the calculation of the data normality test are as follows:

Table 1.6 (Data Normality Test)

Data hasil kemampuan debat	Kolmogorov Smirnov	Sig	α	Kriteria
	1.419	0.036	0.05	Normal

Source: SPSS Output

Description:

Shows normal distribution data with a significance level > 0.05 .

1.1.7 Homogeneity Test

A test of homogeneity of variances was conducted to determine whether the variances among the groups of data being analyzed were equal or not. The assumption of equal variances is particularly important when researchers plan to use parametric statistical tests such as *the independent samples t-test* or ANOVA. In this study, the test of homogeneity of variances was conducted using Levene's Test, which is one of the most commonly used methods for testing the equality of variances across groups.

Tabel 1.7 Test of Homogeneity of Variances

(Results of the Scientific Debate)

Levene Statistic	df1	df2	Sig.
1.612	1	34	.213

Source: SPSS Output

Based on table 1.7 The results of this test show that the research data has a homogeneous variance. This condition is important because it shows that the basic assumptions in parametric analysis are met. With the fulfillment of the assumption of homogeneity of variance, advanced analysis techniques such as t-tests or ANOVA can be carried out without violating statistical assumptions. This ensures that subsequent test results have a good level of validity and can be interpreted more accurately.

1.1.8 Correlation Test

Based on the results of Pearson's correlation analysis, a correlation value of 0.365 with a significance value of 0.000 was obtained. A significance value smaller than 0.05 indicates that there is a significant relationship between variable X and variable Y. A positive relationship direction indicates that the higher the value in variable X, the value in variable Y also tends to increase. However, the strength of the relationship is in the medium category, which means that the influence is not very strong but is still significant.

Tabel 1.8 (Korelasi Pearson)

Variabel	Korelasi Pearson	Sig. (2-tailed)	N
X - Y	0.365	0.000	18

Source: SPSS Output

Tabel 1.9 (Correlations)

	P1	P2	P3	P4	P5	P6	P7	TOTAL	
P1	Pearson Correlation	1	.054	.060	.172	.339*	.033	.205	.531**
	Sig. (2-tailed)		.754	.727	.316	.043	.849	.231	.001
	N	36	36	36	36	36	36	36	36
P2	Pearson Correlation	.054	1	.204	.268	.281	.381*	.036	.587**
	Sig. (2-tailed)	.754		.234	.114	.097	.022	.833	.000
	N	36	36	36	36	36	36	36	36
P3	Pearson Correlation	.060	.204	1	.282	.355*	.421*	.105	.570**
	Sig. (2-tailed)	.727	.234		.096	.034	.011	.544	.000
	N	36	36	36	36	36	36	36	36
P4	Pearson Correlation	.172	.268	.282	1	.047	.435**	.014	.521**
	Sig. (2-tailed)	.316	.114	.096		.787	.008	.937	.001
	N	36	36	36	36	36	36	36	36

P5	Pearson Correlation	.339*	.281	.355*	.047	1	-.116	.179	.568**
	Sig. (2-tailed)	.043	.097	.034	.787		.499	.296	.000
	N	36	36	36	36	36	36	36	36
P6	Pearson Correlation	.033	.381*	.421*	.435**	-.116	1	.328	.586**
	Sig. (2-tailed)	.849	.022	.011	.008	.499		.051	.000
	N	36	36	36	36	36	36	36	36
P7	Pearson Correlation	.205	.036	.105	.014	.179	.328	1	.510**
	Sig. (2-tailed)	.231	.833	.544	.937	.296	.051		.001
	N	36	36	36	36	36	36	36	36
TOTAL	Pearson Correlation	.531**	.587**	.570**	.521**	.568**	.586**	.510**	1
	Sig. (2-tailed)	.001	.000	.000	.001	.000	.000	.001	
	N	36	36	36	36	36	36	36	36

*. Correlation is significant at the 0.05 level (2-tailed).

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

Based on table 1.9, the results of correlation analysis show that all dimensions measured (P1 to P7) have a positive and significant relationship to the total score. All values of the pearson correlation coefficient with the total are in the range of 0.510 to 0.587. And all were very statistically significant ($p = 0.000$).

Tabel 1.10 Reliability Statistics

Cronbach's Alpha	N of Items
.606	7

Source: SPSS Output

Based on table 1.10, the results of the reliability test in table 4.10 obtained a Cronbach's Alpha value of 0.606. This value shows that the research instrument is included in the category of quite reliable.

Tabel .1.11 One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		18
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.99732262
Most Extreme Differences	Absolute	.335
	Positive	.335
	Negative	-.278
Kolmogorov-Smirnov Z		1.419

Asymp. Sig. (2-tailed)	.036
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- a. Test distribution is Normal.
- b. Calculated from data

Based on table 1.11, the *One-Sample Kolmogorov-Smirnov Test* obtained an Asymp. Sig. (2-tailed) value of 0.36. Because of the value of Asymp. Sig. (2-tailed) is 0.36 smaller (<) than 0.05, so it can be concluded that the residual data is not distributed normally.

Tabel 1.12 Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.612	1	34	.213

Source: SPSS Output

Based on table 1.12 *Test of Homogeneity of Variances* (levene test), a statistical levene value of 1,612 with a significant value (sig) was obtained. By 0.213. Since the significant value (0.213) is greater than 0.05, this indicates that the variance of the two data groups is homogeneous (equal). These results meet the assumptions necessary to perform a specific comprehensive analysis.

Tabel 1.13 Correlations

		X	Y
X	Pearson Correlation	1	.365
	Sig. (2-tailed)		.000
	N	18	18
Y	Pearson Correlation	.365	1
	Sig. (2-tailed)	.000	
	N	18	18

Source: SPSS Output

Based on table 1.13 *Correlations*, the relationship between variable X and variable Y is obtained. The significant value (sig. 2-tailed) is 0.000, which is much smaller than 0.05. This indicates that there is a positive and very statistically significant relationship between variable X and variable Y. With a total of 18

samples (N)

4. Discussion

This research was conducted at SMA Negeri 2 Sirenja, the collection of research data was carried out starting October 20, 2025. Looking at the situation and conditions at school based on the observations made that the results of students' scientific debate ability showed that the validity test had data criteria that were considered valid, and the reliability test showed that the data of the research instrument had high reliability, namely *Cronbach's Alpha* $0.606 \geq 0.70$, then the normality test value was normally distributed with a significant level of > 0.05 , while the data value from the homogeneity test showed that The existence of homogeneous variance between the two groups and the correlation relationship between variable X and variable Y is in the moderate category, which means that the influence is not very strong but still significant.

So, the researcher is interested in conducting research at the school. This study uses class X as the research population. The sample used was class XA as many as 36 students. To obtain data, it is carried out by assessment using teacher observation sheets, student observation sheets and other research rubrics. This study aims to find out "The Influence of the *Talking Stick* Method on the Scientific Debate Ability of Class X Students of SMA Negeri 2 Sirenja.

5. Conclusion

Based on the results of the study, it can be concluded that the implementation of "The Influence of the *Talking Stick* Method on the Scientific Debate Ability of Class X Students of SMA Negeri 2 Sirenja" shows that there is an influence and relationship between variable X (*talking stick method*) and variable Y (students' scientific debate ability). This can be seen from the results of data analysis that the average value of variable X (85.71%) is $<$ compared to the average value of variable Y (91.67%). So that there is a significant relationship in which H_a is stated to be accepted and H_0 rejected. This means that the hypothesis of the researcher in this study is accepted.

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