

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter describes about research finding that include data presentation, data analysis and discussion.

A. Research Finding

In this chapter, the researcher presented the data on the students' reading comprehension taught without using student team achievement division (STAD) and taught using student team achievement division (STAD) as technique in the process of teaching reading comprehension. In this presentation, the researcher presented and analyzed the data which has been collected through of test: Pre-test and Post-test. It was conducted for twenty one students.

1. Description of students' reading comprehension in the score taught without using student team achievement division (STAD) technique as teaching reading

In this section, the researcher presented the result of the Pre-test that had been done before treatment. Pre-test was held on Wednesday, May 01, 2013 at 09.30 until 10.40 am. It's consisted of 30 items consisting of: ten questions in the form of true or false, ten questions for multiple choices and ten questions in the form of easy. The detail students' score of Pre-test shown in the table below:

Table 4.2 the score of students ‘reading comprehension taught without using student team achievement division (STAD) technique

No	Subject	Score
1.	A	58
2.	B	58
3.	C	45
4.	D	79
5.	E	86
6.	F	41
7.	G	58
8.	H	72
9.	I	45
10.	J	79
11.	K	79
12.	L	86
13.	M	44
14.	N	58
15.	O	55
16.	P	86
17.	Q	78
18.	R	58
19.	S	58
20.	T	79
21	U	41
		$\Sigma X = 1344$

2. Description of students ‘reading comprehension in the score taught using student team achievement division (STAD) technique

Here, researcher presented the score of Post-test after being taught using student team achievement division (STAD) technique in teaching reading comprehension. It was administered on Friday, May 10, 2013 at 10.40 – 11.50 am. The list of the students’ scores of reading comprehension which has been taught using student team achievement division (STAD) technique can be seen in the table below:

Table 4.3 the score of students ‘reading comprehension taught using student team achievement division (STAD) technique

No.	Subject	Score
1	A	86
2	B	86
3	C	68
4	D	100
5	E	100
6	F	86
7	G	98
8	H	98
9	I	98
10	J	86
11	K	100
12	L	100
13	M	79
14	N	79
15	O	86
16	P	100
17	Q	100
18	R	79
19	S	98
20	T	98
21	U	86
		$\Sigma Y = 1911$

The data of the students Pre-test and Post-test’ score can be arranged in the form of frequency of the students’ score as in the following table.

Table 4.4 Frequency of Students’ Score

No	Score	F _x	F _y
1	90-100	0	3
2	80-89	6	6
3	70-79	6	11
4	60-69	0	1
5	50-59	7	0
6	0-49	2	0
		X1=21	X2=21

The presentage of the students Pre-test and Post-test 'score can be seen in following tables.

Table 4.5 Percentage of the Students 'Pre-test score

Subject	Score	F _x	%
A+	90-100	0	0
A	80-89	4	36,58
B	70-79	2	39,02
C	60-69	0	17,07
D	50-59	9	2,44
E	0-49	6	4,88
		N = 21	P = 100%

Table 4.6 Percentage of the Students 'Post-test Score

Subject	Score	F _y	%
A+	90-100	11	7,32
A	80-89	6	46,34
B	70-79	3	39,02
C	60-69	1	7,37
D	50-59	0	0
E	0-49	0	0
		N = 21	P = 100%

$$P = \frac{F}{N} = 100\%$$

N

The result of Pre-test and Post-test in the percentage and criteria was different. After using student team achievement division (STAD) technique in teaching reading comprehension, on the table 4.5 and 4.6 show that A+ subject has increased (0% to be 7,32%), A subject has increased (36,58% to be 46,34%). B subject has equal percentage (39,02% to be 49,02%) C subject has decreased (17,07% to be 7,37%). D and E subject has also decreased (2,44% to be 0% and 4,88% to be 0%). In conclusion, it shows that taught using student team

achievement division (STAD) technique to teach reading comprehension had increased that taught without using student team achievement division (STAD) technique.

The analysis of this research was made from the students' score of test. As explained in previous that the instrument used in this research was test, including Pre-test and Post-test. The analysis was made to find out whether or not there is significant difference in the score reading comprehension between the students taught without using student team achievement division (STAD) technique and those taught using student team achievement division (STAD) technique. It is also to find out the effectiveness of student team achievement division (STAD) technique in teaching reading comprehension to the eight grade students at MTs Aswaja Tunggangri Kalidawir.

B. Testing Hypothesis

To know the difference students' reading in the score taught without using student team achievement division (STAD) technique and taught using student team achievement division (STAD) technique, the researcher tested the hypothesis as seen in table 4.7 to the computation.

Table 4.7 the list of students' reading comprehension in the score taught without using student team achievement division (STAD) technique and taught using student team achievement division (STAD) technique

No	Subject	Pre-test (X)	Post-test (Y)	d (Y-X)	d ²
1.	A	58	86	28	784

2.	B	58	86	28	784
3.	C	45	68	23	529
4.	D	79	100	21	441
5.	E	86	100	14	196
6.	F	41	86	45	2025
7.	G	58	98	40	1600
8.	H	72	98	26	676
9.	I	45	98	53	2809
10.	J	79	86	7	49
11.	K	79	100	21	441
12.	L	86	100	14	196
13.	M	44	79	35	1225
14.	N	58	79	21	441
15.	O	55	86	31	961
16.	P	86	100	14	196
17.	Q	79	100	21	441
18.	R	58	79	21	441
19.	S	58	98	40	1600
20.	T	79	98	19	361
21.	U	41	86	45	2025
		$\Sigma X = 1344$	$\Sigma Y = 1911$	$\Sigma d = 567$	$\Sigma d^2 = 18221$

Identifying mean

Mean from X and Y

$$M_X = \frac{\Sigma X}{N} = \frac{1344}{21}$$

$$= 64$$

$$\Sigma Y = \frac{\Sigma Y}{N} = \frac{1911}{21}$$

$$= 91$$

After the researcher found the difference score between Pre-test and Post-test, than the researcher has to find the average of the different score. Here, the researcher using the formula of Mean of deviation (Md) to found the Xd.

$$M_d = \frac{\sum d}{N} = \frac{567}{21}$$

Table 4.8 Computation of Standard Deviation

No	D (Y-X)	d ²	Xd (d-M _d)	X ² d
1	28	784	1	1
2	28	784	1	1
3	23	529	-4	16
4	21	441	-6	36
5	14	196	-13	169
6	45	2025	18	324
7	40	1600	13	169
8	26	676	-1	1
9	53	2809	26	679
10	7	49	-20	400
11	21	441	-6	36
12	14	196	-13	169
13	35	1225	8	64
14	21	441	-6	36
15	31	961	4	16
16	14	196	-13	169
17	21	441	-6	36
18	21	441	-6	36
19	40	1600	13	169
20	19	361	-8	64
21	45	2025	18	324
	$\sum d = 567$	$\sum d^2 = 18221$	$\sum Xd = -26$	$\sum X^2d = 2912$

After finding the $\sum X^2d$, then the next step is finding the “T-test”. The formulation as follow:

$$t = \frac{\frac{M_d}{\sqrt{\frac{\sum X^2d}{N(N-1)}}}{\frac{27}{\sqrt{\frac{2912}{21(21-1)}}}}$$

$$t = \frac{27}{\sqrt{\frac{2912}{420}}}$$

$$t = \frac{27}{\sqrt{6.933}}$$

$$t = \frac{27}{2.633}$$

$$T_{\text{count}} = 10.254$$

So, the value of T-test is **10.254**

After knowing the T-test, the writer consulted the critical value on the T table to check whether the difference was significant or not. For this experiment, the writer used the 5% (0,05) alpha level of significance as usually used in educational research. The number of subject in this experiment was 21 with the degree of freedom (df) 20. See the formula as follow:

$$\begin{aligned} df &= N-1 \\ &= 21-1 \\ &= 20 \end{aligned}$$

From the computation above, it can be seen that the value of T_{count} is 10.254 with df is 20. The mean score taught without using student team achievement division (STAD) technique is 64 and taught using student team achievement division (STAD) technique is 91. It improved, with the T-test analysis that is used by the researcher, the result of T_{count} is 10.254.

The different which is appear in T_{count} above mean that the mean taught before treatment is lower than the mmean after treatment. Therefore, student team achievement division (STAD) technique improved the students reading comprehension.

Then the researcher gives interpretation to t_0 . First the researcher considered the $df = N-1$ with the df is 20. The researcher consulted to the score in the “ T_{table} ”. At the significant level of 0.05, the score of T_{table} is 1.725. By comparing the “ T ” that the researcher has got in calculation $T_{\text{count}} = (10.254)$ and the value of “ T ” on the $T_{\text{table } t_0, 05} = (1.725)$. It is known that T_{count} is bigger than $T_{\text{table}} = (10.254 > 1.725)$.

Because the T_{count} is bigger than T_{table} the alternative hypothesis (H_a) is accepted and the null hypothesis is rejected, it means that there is different score of the reading achievement taught without using student team achievement division (STAD) technique and taught using student team achievement division (STAD) technique.

C. Discussion of the Research Finding

Student team achievement division (STAD) is a one of the oldest and most extensively researched form of cooperative learning. Robert Slavin and his colleague use in John Hopkins University developed student team achievement division (STAD) teaching. Slavin states:

Student team achievement division (STAD) system is one of the simplest and most flexible of the cooperative learning method,

having will be used in second grade up to twelve graders and in such diverse subject area as math, language art, social studies, and science. In the cooperative learning type, students are assigned to three or four members in groups, with each mirroring the others to make up the class in terms of ability, background, and gender (1995 : 33).

According to the result of the Pre-test and Post-test and the hypothesis test, it shows the teaching reading comprehension using student team achievement division (STAD) technique is effective in improving students' reading comprehension to the eight grade students of MTs Aswaja Tunggangri Kalidawir.

The effectiveness of using using student team achievement division (STAD) in improving students' reading comprehension can be seen in the hypothesis test. The result of the calculation of t-test is that the value of T_{count} is 10.254. It is consulted with T_{table} on significant level 5% is 1.725. It means that the value of $T_{\text{count}} > T_{\text{table}}$. It can be concluded that there is a significant difference between teaching reading comprehensions taught using student team achievement division (STAD) technique and taught without student team achievement division (STAD) technique.

According to the mean score, the mean score of Post-test is higher than the mean score of Pre-test. It also means that teaching reading comprehension using student team achievement division (STAD)

technique is better than teaching reading comprehension taught without student team achievement division (STAD) technique.

1. Students' reading comprehension taught without student team achievement division (STAD) technique

Students' reading comprehension is lower. It is proved by when they are taught without STAD technique. Students read the reading passage one by one in every meet. They learn and try to get the new information of the reading passage individually. The students only get the information of the reading passage they read themselves. They do not share with their friends. So, students only get little information because their ability. Students are forced to do their task individually although it is known that they have difference information each other.

As we know from the research findings, the students which are taught without STAD technique have lower score than using STAD technique. It is proved by the calculation of mean score on Pre-test was 61 and Post-test was 91.

From this situation and result of research finding the writer concludes that conventional technique is not good enough use in teaching reading comprehension.

2. Students' reading comprehension taught using student team achievement division (STAD) technique

Applying STAD technique in learning process in teaching reading comprehension gives positive benefit for students reading

comprehension. There are: The process teaching learning of student team achievement division (STAD) technique the students not only learns from the teacher, but they also can learn from each other. By using the student team achievement division (STAD) technique, the students learn to development of human resources. It can motivate the students to work together and enable them to solve the problem they could not have solved a lone. The students who have not understood the text yet, can ask other students who already understand.

As we know from the research findings, the students which are taught using student team achievement division (STAD) technique have higher score than without STAD technique. It is proved by the calculation of mean score on Post-test was 91 and Pre-test was 64.

So, the writer concludes that this technique is very useful to make the students more active, get easy and improve students' achievement in reading comprehension, and make their social relation more positive.

3. Difference of reading comprehension between students taught without using student team achievement division (STAD) technique and those taught using student team achievement division (STAD) technique

Teaching reading comprehension without student team achievement division (STAD) technique make students be passive teaching and sometime both teacher and students become bored.

Teaching reading comprehension using student team achievement division (STAD) technique make the classroom climate interest the students to study and learn more. Students feel comfortable to learn and teacher will also teach well.

As we know from the research findings, the students which are taught using student team achievement division (STAD) technique have higher score than teaching without student team achievement division (STAD) technique. It is proved by the calculation of mean score on Post-test was 91 and Pre-test was 61. In percentage of the average achievement in reading comprehension, the Pre-test had 72,55 % and the Post-test had 77,6 %. So, we can say that there was 5,05 % difference. It can be concluded that the difference is statistically significant. The calculation of hypothesis test indicated $T_{\text{count}} > T_{\text{table}}$. Therefore, the null hypothesis, “there is no significant difference in the student’s reading comprehension achievement between those taught using student team achievement division (STAD) technique and those taught without student team achievement division (STAD) technique” is rejected.