# CHAPTER IV

# RESULT AND DISCUSSION

In this chapter the data is presented and analyzed based on what the researcher obtained from the experiment conducted at the Eleventh Grade of MA Negeri 1 Kota Mojokerto. To measure the data, **t-test** formula is applied to calculate the result of pretest and posttest from experimental and control group.

## A. The profile of MA Negeri 1 Kota Mojokerto

MA Negeri 1 Kota Mojokerto is senior high school that has purpose to increase intelligence, knowledge, individuality, noble morality as well as the skill to live independently and to further education, which has Islamic characters. MA Negeri 1 Kota Mojokerto is located in Jl. Cinde Baru VIII Prajuritkulon Kota Mojokerto. MA Negeri 1 Kota Mojokerto was built in 1998. The location of the school is so far from the main road the situation is not very crowded, so the students can learn quietly. The school has many facilities, such as yard, classroom, laboratories, and library.

The teacher of MA Negeri 1 Kota Mojokerto is very competent. Every teacher gives top priority to discipline and responsibility in performing his or her duties. The teachers and the school workers work each other to keep the school's reputation and students' quality.

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1. **Vision MA Negeri 1 Kota Mojokerto**

   The visions of MA Negeri 1 Kota is Qualified, Discipline and Islamic. The indicators to achieve that vision are:

   a. **Qualified:** have a good quality of graduates which master in science and technology, IMTAQ and competitive as a Muslim.

   b. **Discipline:** have a high quality of discipline and responsibility in every duty.

   c. **Islamic:** Have piety, tough, and always uphold Islamic values.

2. **MISSION MA Negeri 1 Kota Mojokerto**

   Create a superior quality of education institutions, high discipline, and tough piety that always uphold Islamic values by applying participatory management based on the concept of School Management, through:

   a. Improve the quality of human resource

   b. Improve the quality of learning

   c. Improve sport achievement and art

   d. Improve discipline in all activity

   e. Improve facilities and infraction

3. **Target**

   a. Increase the quality of human resources.

   b. Increase the quality of learning

   c. Increase achievement Sport and the Arts

   d. Increase discipline in every activity.

e. Increase the practice and appreciation of religious values of Islam

f. Increase the availability of facilities and adequate infrastructure Madrasah.

g. Increase Madrasah relations with the community and stock holders to achieve the quality of graduates.

h. Increase service quality of Madrasah Administration.

## B. Result

Small group task was used to improve the students reading ability in doing the task and for comprehending. This study was conducted to find out whether there is a significant difference between the students who are taught without using Small Group task technique. The data showed that the score of pretest is different from posttest of experimental groups and control groups.

### 1. The Result of the Experimental and control groups.

The aim of this part was to find out the improvement in the pretest and posttest score of the experimental and the control groups. The data were collected from the pretest and posttest of both groups. There were several steps to analyze the data. First, the researcher put the score of the pretest and posttest of experimental groups in the table. Second, the researcher calculated the pretest score and the mean (See appendix 1). The result of the experimental and the control groups were presented in the following table.
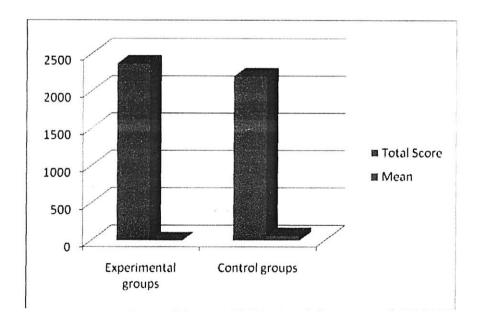
Table 4.1

The pretest score and the means of experimental and control groups.

| Group | N | Total Score | Mean |
|---|---|---|---|
| Experimental groups | 36 | 2365 | 65,7 |
| Control groups | 36 | 2195 | 60.1 |

The result is described through the following figure.

Figure 4.1

Chart of pretest score and means in the both of groups.



The table showed that sum of pretest scores was 2365 for the experimental groups and 2195 for the control groups. While, the mean of the

pretest scores of the experimental group was 65,7 and the control group was 60,1. It means that the students of the two groups have slight difference of ability before the treatments were given.

The pretest in the experimental and control group was attended by 36 students and so was the posttest. After giving the pretest, the researcher did the treatment to the experimental and control groups. For the experimental groups, the researcher used small group task while for the control group the researcher did not use the small group task technique. Then the posttest was conducted.

The first meeting was pretest which all of the students from both groups were present in their meeting. The researcher gave pretest to those groups without using the small group task technique. Many students could not achieve the maximum score of 70. Here, the students faced some problems in reading comprehension. They got difficulty in raising their comprehension. Some of them were poor in vocabulary, so it made them got difficulties in answering the questions from reading task.

## 2. The Treatment

a. Experimental Group by using Small Group Task.

Based on the result of the test, the researcher conducted the treatment to solve the problem. The treatments were done twice, on July 28th and also July 29th. The first treatment used story of "Kinds of Earthquake" as

the theme and the second treatments used "A mangroves trees" as the theme. These treatments used Small Group Task techniques.

The first treatment was started with greeting and shared the purpose of the study. Then the teacher showed some pieces of reading text. Next, the teacher devided them into several groups. The teacher asked them to read, to understand what the text above, and they should answer the questions:

### Kinds of Earthquake

Earthquake often happens around us. It brings great damages. Earthquake is hard to be predicted and that makes lot victims.

Actually there are three kinds of earthquake. These kinds of earthquake are commonly base on the factor and geological area where the earthquakes happen. These three kinds of earthquake are tectonic, volcanic and explosion.

Tectonic earthquakes are most common one. This kind of earthquake happens while earth's crust rocks break because of the geological strength created by moving of the earth's plates.

Volcanic earthquakes happen exactly with volcanic activity. Volcanic earthquakes are when the volcano produces acidic lava, which drys quickly, when it drys quickly it blocks the top of the volcano. This make no more magma can escape. Pressure starts to build up and eventually the acidic lava can no longer stand the pressure. So the volcano is free to explode, the pressure is released so fast that an earthquake is caused. A volcanic earthquake is usually kept within 10-20 miles of the volcano.

Explosion earthquakes are the result of the collapse earthquakes that are small earthquakes occurring in underground mines and caverns.[1]

*Answer these question based on reading text!*

➢ Is the earthquake often happens around us?
➢ Decide into how many kinds the earthquakes are?

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[1] Depdiknas Kurikulum, *Headlight for XI grade Madarasah Aliyah dan Sekolah Menengah Atas*, Jakarta: Depdiknas, 2008, p. 76

> ➢ Why the tectonic earthquake happens?
> ➢ When the volcanic earthquakes happen? And when the volcano produces acidic lava?

The reading task was given to them, and they tried to comprehend the text and they wrote the questions of the text. Students worked together in a group to do the task.

The second treatment was started with the greeting and shared the purpose of the study. Then the teacher showed some pieces of reading text. Next, the teacher divided them into several groups. The teacher asked them to read, to understand what the text above, and they should answer the questions:

**A mangrove trees**

A mangrove is a tropical marine tree. Mangroves have special aerial roots and salt-filtering tap roots which enable them to thrive in brackish water. Brackish water is salty but not as salty as sea water. Mangrove trees are commonly planted and found in coastal areas. Mangroves can serve as walls of protection for natural disaster in coastal area like tsunami. According to BBC News, healthy mangrove forests had helped save lives in the Asia disaster tsunami and people tended to respect these natural barriers even more, especially after the tsunami.

There are several species of mangrove tree found all over the world. Some prefer more salinity, while others like to be very-close to a large fresh water source such as river. Some prefer areas that are sheltered from waves. Some species have their roots covered with sea water every day during high tide. Other species grow on dry land but are still part of the ecosystem. The Times of India reported that rare species of mangrove had been found and was also known as the looking-glass tree, probably because the leaves are silver-coated.

Mangroves need to keep their trunk and leave above the surface of the water. Yet they also need to be firmly attached to the ground so they are not moved by waves.

Any part of root that appears above the water flows the oxygen into the plant under water surface. As the soil begin to build up, these roots procedure additional roots that become embedded in the soil.[2]

*Answer these question based on reading text!*
➢ What the mangroves special have?
➢ Is the mangrove having the functional?
➢ What the BBC news give a report about the mangrove?

The reading task was given to them, and they tried to comprehend the text and they wrote the questions of the text. Students shared each other in a group to do the task.

In Small Group task the teacher gave new methods as learning strategy in teaching reading. The teacher built the idea and knowledge of the students by using Small Group Task. In this technique every student was able to do this activity easily. The teacher provided the materials or topics to facilitate students to express their own ideas. Before giving the reading material the teacher asked one of students to read the book and to understand what the story above.

b. Control Group by Using Traditional technique

Based on the result of pretest, the teacher conducted the treatment to solve the problem. The treatments were done twice, on June 28th and also June 29th. The first treatment used the Kinds Earthquake and the second treatment used Mangroves Trees of reading texts. This treatment was used Traditional techniques.

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[2] Headlight, Op.Cit, p. 89

The first treatment was started with the greeting and shared the purpose of the study. Then the teacher ordered the students to open the book and gave some explanation based on the subject. Teacher asked the students to fill the blanks sentence and submit the work.

The second treatment was started with the greeting and shared the purpose of the study. Then the teacher ordered the students to open the book and gave some explanation based on the subject. Teacher asked the students to fill the blanks sentence and submit the work.

In traditional technique the teacher used the old method to the students. The teacher gave a material to the students, and explains the book. The student just received teacher's explanation without expressing their idea in the reading task form. The idea it is limited in the book. So, the idea of students cannot pour on the reading task form. For example the teacher asked students to open the book and gave some explanation based on the subject. Then teacher asked the students to fill the task.

Each group is given different treatments to know the result whether the alternative technique is effective or not in teaching reading. Therefore every group got posttest to answer the research problem, and to find out whether the Small Group more effective than traditional technique. Then the score of both groups was analyzed to answer the hypothesis of testing.

The score of the test after the second treatment showed improvement. It meant that the students reading ability was increased. The post test was

held to both of experimental and control groups on the same week. The purpose of posttest was to know whether there were improvements in the student's achievements on reading comprehension text in experimental group by using small group. The result of the posttest score and mean of the experimental and control groups were presented in following table.
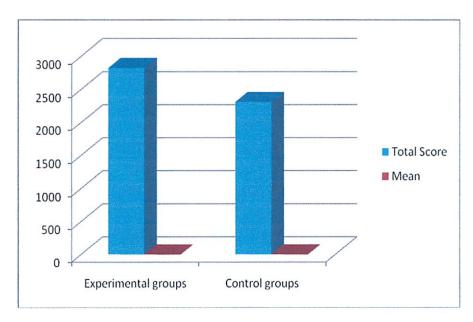
Table 4.2

The posttest score and the means of experimental and control groups.

| Group | N | Total score | Mean |
|---|---|---|---|
| Experimental group | 36 | 2825 | 78,5 |
| Control group | 36 | 2310 | 64,1 |

The result is described through the following figure.

Figure 4.2

Chart of posttest score and means in the both of groups.

From the result of pretest and posttest scores of experimental group, we could see that the posttest score was higher than pretest. It can be seen trough the following table.
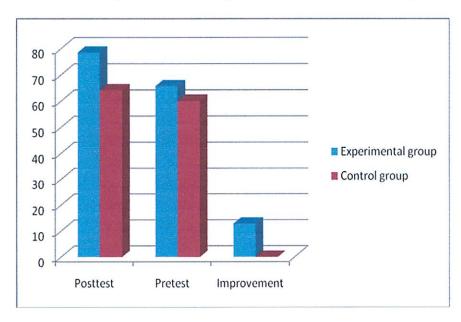
Table 4.3

The improvement of Experimental and Control Group

| Group | Mean | | |
| --- | --- | --- | --- |
| | Posttest | Pretest | Improvement |
| Experimental group | 78,5 | 65,7 | 12,8 |
| Control group | 64,1 | 60,1 | 4 |

The result is described through the following figure.

Figure 4.3

Chart of The improvement of Experimental and Control Group.

Overall the improvement between pretest and posttest score of the experimental group was higher than the control group one. Then the researcher calculated the two meant posttest scores by using t–test formula to know whether it was significant or not.

## C. The Calculation of t-test.

After researcher gave the posttest treatments and posttest, then the researcher calculated the different meaning of pretest and posttest score between experimental and control groups to know whether the result was significant or not between both groups. Then, the result was analyzed by using t-test formula. Before it was done, the standard deviation of the two groups was calculated first. This table presented the result of the calculation.

Table 4.4

The calculation result of standard deviation (SD).

| Group | N | Mean | SD |
|---|---|---|---|
| Experimental group | 36 | 65,7 | 78,5 |
| Control group | 36 | 60,1 | 64,1 |

Result on the data in table above, the standard deviation (SD) of the experimental group 78,5 was higher than control group 64,1. It meant that there were differences of the posttest scores between experimental and control groups.

After knowing the mean of pre-test and post-test, then the researcher found the mean different between pretest and posttest of both classes. It was described below:
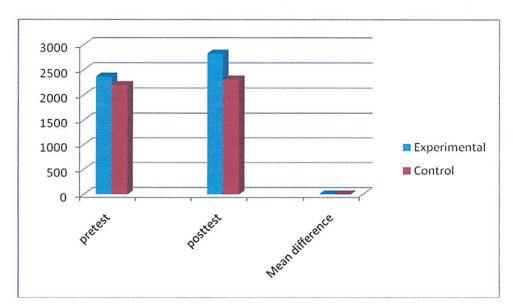
Table 4.5

The calculation result of Mean Difference (MD).

| Group | Number of students | pretest | Posttest | Mean difference |
|---|---|---|---|---|
| Experimental | 36 | 2365 | 2825 | 12,8 |
| Control | 36 | 2195 | 2310 | 3,1 |

Figure 4.4

Chart of Mean Difference (MD) of Experimental and Control Group.

From the table above, it showed that the mean difference of experimental class was higher than control class. The score of Small Group Class had mean difference 12,8, while Traditional technique class had mean difference 3,1. It can be concluded that the treatment given by Small Group technique was more influenced than Traditional technique.

Then, the researcher found the significant difference between both classes using t-test formula:

$$t = \frac{M_x - M_y}{\sqrt{\left[\dfrac{\sum X^2 + Y^2}{N_x + N_y - 2}\right]\left[\dfrac{1}{N} + \dfrac{1}{N}\right]}}$$

$$= \frac{17 - 8}{\sqrt{\left[\dfrac{11665 - 3984}{34 + 34 - 2}\right]\left[\dfrac{1}{34} + \dfrac{1}{34}\right]}}$$

$$= \frac{9}{\sqrt{\left[\dfrac{7681}{66}\right]\left[\dfrac{2}{68}\right]}}$$

$$= \frac{9}{3,364}$$

$$= 2,675$$

The result of the calculation was presented in the table below:

Table 4.6

The result calculation of deviation square and t-test

| Subject | N | Deviation square | | t-value | t-table |
|---|---|---|---|---|---|
| | | Experiment | control | | |
| Experimental groups | 36 | 19 | - | 10,6 | 2.03 |
| Control groups | 36 | - | 7,36 | 10,6 | 2.03 |

Next, to calculate the t –test the researcher must determine the degrees of freedom first by using formula as bellow:

Degree of freedom:      $N 1 + N2 - 2$

$$= 36 + 36 - 2$$

$$= 70$$

The data showed that the sum of deviation of each groups. From the presentation above, it could be seen that the deviation square of the experimental groups was 19 while the control group was7,36. Based on the calculation of t-test, then t-value comparing with t-table distribution with the significant level of 0,05 and degree of freedom 70 on the table was 2.65. Then the result of t-value was 10,6 it was found out that t-table was 2.65.

task and comprehend the text. Therefore, students must be encouraged in the learning process in the classroom to achieve the success of teaching learning process.

3. For further researcher/ for the reader

The researcher does realize that this study is still far from being perfect. The researcher hopes that there will be other researcher who will do the same research about the material or technique to improve reading. The researcher does hopes that other researchers find more interesting techniques, and do the study intensively with more accurate data. Also, the researcher hopes that the next researcher can develop this research to be the better research next time with a different approach and analysis.

For the reader, the researcher hopes that this study can add the information and this study will give the little contribution about the importance of small group task activities in teaching reading skill.

So, it was clear that there was significant difference between the students who were taught using small group (experimental groups) and who were not taught using traditional technique (control groups). In another words, the treatments by using small group had significant influenced to the students' scores of reading ability.

## D. Hypothesis Testing.

By looking at the calculation above which stated t bigger than t table, which is the score was 10,6 > 2.65 then the conclusion hypothesis is nothing (H0) rejected and the alternative hypothesis (Ha) is accepted, this means between the two variables there are significant differences, namely the Small group is significant which is able to demonstrate and effectiveness as learning method. It can be concluded that with the implementation of Small Group technique improve reading skill in class XI.

## E. Discussion

This research study about the effectiveness of Small Group Task in teaching reading comprehension. Small Group Technique was used as a new method and compared to traditional methods. Because this study uses the quasi experimental method, so it used two classes for the subscription sample. Class XI-IA used Small Group Technique and class XI-IS used traditional methods.

The result of students' achievement could be seen from the pretest and posttest result. From the results of pretest, the means of the reading ability were slightly different, the score in experimental group was 2365 and 2195 in control group. So after the researcher giving the treatment, the result of the posttest shows different values, the score in experimental group was 2825 and 2310 in control group. Than the small group can improve the students reading ability.

Experimental study was conducted over four meetings. On *the first* meeting the pretest was conducted for both classes XI –IA and XI –IS. On *The second and the third* meeting, the use of Small Group techniques was applied in experimental class and Traditional technique in the control class. Was both classes were conducted with the same theme. In Small Group techniques the students divided into several groups. Next, the paper of reading text was given to them. They read and comprehended the text, and tried to discuss each other in their group. They wrote the answer of the questions based on text. In traditional techniques the teacher ordered the students to read the text and gave some explanation based on the subject. The teacher asked the students to fill the blanks sentence and submit the work. The difference on these techniques is the method in teaching reading. On *the fourth* meeting, posttest was conducted to two classes that is XI-IA (experimental) and XI-IS (control). This test was applied to know the result of the effectiveness of the treatments on both groups.

As the result from references of previous thesis, for the first research in teaching speaking was done by Wahyuni Purnamasari entitled *The*

*Implementation of Small Group Discussion to Improve Speaking Skill At First Grade of SMA Hangtuah 2 Surabaya.* This research was conducted in 2007, this research have a good improvement in speaking skill by using small group in teaching speaking skill. Second research in teaching reading was done by M. Jakfar entitled *Improving The Second Year Students' Reading Comprehension At SMA Negeri 1 Syamtalyra Around Trough Small Group Discussion Strategy.* This research conducted in 2006, this research also has a good improvement in learning reading comprehension. Both of the result has significant, that the small group can improve in learning English. Both of the result has a differences method with this research, that both of the results use Class Action research (CAR) and this research use the quasi experimental.

Moreover, the mean of Experimental and Control Group's improvement were different. The experimental group achieved higher improvement than the control group. Thus, the effectiveness of the Small Group technique was proven.