**CHAPTER IV**

**THE RESULT OF THE RESEARCH AND DISCUSSION**

In this chapter the writer describes the description of the research data, the presentation of the quantitative data, the interpretation of the quantitative data, hypothesis testing and discussion.

1. **The Description of the Research Data**

The description of the research data explains about conducting pre-test, the process of teaching English achievement in experimental and control group, and the last is about conducting post-test

1. Conducting Pre-Test

The researcher did pre-test to both experimental and control group to know the ability of the students before giving treatment. The pre-test was held 27th April 2012.The materials were taken from some books for first grade of junior high school: they are LKS for SMP 1.The test materials covered accuracy for vocabulary achievement in find new word, match the sentences, and fill in the blank of a paragraph.

1. Process of teaching in experimental group and control group

There are two groups, experimental and control groups. Experimental was given treatment by the researcher and without treatment in control group. A class is as experimental group and B class as the control group. The quantity of teaching English is meetings, for three weeks and in the same day.

1. Process of teaching in experimental Group

The first and second meeting, the researcher taught vocabulary that was held on 30thof March 2012.The researcher took topic “public service”. After that, the researcher explains about the role of using TGT in learning vocabulary.

The third and fourth meeting that was held on of 7th May2012, the researcher divided the students into three groups, each of group consist of six students. The group consists of heterogeneous characteristic of academic ability to help each other in explaining the material. Then, the researcher as a teacher gave the material for group discussion. The topic discussion was” sport “The researcher explained that the discussion focused on the group working. From the study it was hoped that the students had idea how to understand difficult word and team work to finish the task group.

The fifth to sixth meeting that was held on of 14th May 2012, the researcher gave the students tournament game. Before start the tournament game, the researcher help the students to prepare six tournament tables, each of group consist of three students who has homogeneous characteristic of academic ability from different group. The students compete among groups in the tournament to be the winner team.

1. Process of teaching in control group

The process of teaching in control group was like in experimental group among schedule, topic, and quantity of teaching. The differences are on method of teaching learning process. The control group didn’t use TGT as method in teaching learning process or was treated as ussual

1. Conducting Post-test

The researcher did post –test to both experimental and control group to know the ability of the students after giving treatment. The post-test was held on 21th May 2012.The materials were taken from some sources for the first grade of junior high school students; they are English on Sky 1 for junior high school students, LKS Bahasa Inggris for SMP 1.

1. **The Presentation of Quantitative Data**

As mentioned previously, the researcher wants to know whether there is different result between experimental group and control group. The result of test will be presented as follows:

1. **The result of Pre-test**

The pre-test format for control group held 27th April 2012 and the experimental group was same the date, but different in time. There were 19 students for control group and 18 students in experimental group.

1. The result of Pre test in experimental group.

Table 4.1 The result of Pre test in experimental group

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Subject | Score | Interpretation |
| 1 | A | 70 | enough |
| 2 | B | 60 | poor |
| 3 | C | 70 | enough |
| 4 | D | 65 | enough |
| 5 | E | 45 | very poor |
| 6 | F | 50 | very poor |
| 7 | G | 50 | very poor |
| 8 | H | 45 | very poor |
| 9 | I | 45 | very poor |
| 10 | J | 55 | poor |
| 11 | K | 40 | very poor |
| 12 | L | 55 | poor |
| 13 | M | 40 | very poor |
| 14 | N | 50 | very poor |
| 15 | O | 50 | very poor |
| 16 | P | 45 | very poor |
| 17 | Q | 40 | very poor |
| 18 | R | 40 | very poor |
|  |  | ∑X = 915 |  |

The computation of the mean score pre test

X = $\frac{∑X}{Nx}$ = $\frac{915}{18}$ = 50, 8

The mean score of pretest was 50, 8.

 The numbers of the test given were 20 questions for 18 students. The pretest was done before treatment process (teaching vocabulary by using TGT method). This test is given to know the basic competence for all students and to know their earlier knowledge before they get treatment.

 Furthermore, the researcher analyze the frequency and the percentages of the student’s score for pretest, the result of frequency and the percentages will be presented as follows:

The frequency and percentages of the student’s score for pretest

Table 4.2The student’s vocabulary mastery before taught by using TGT

|  |  |  |  |
| --- | --- | --- | --- |
| Data interpretation | Criteria of Score | Frequency (f) | Percentages (p) |
| Excellent | 91 up to 100 | - | 0% |
| Very good | 81 up to 90 | - | 0% |
| Good | 71 up to 80 | - | 0% |
| Enough | 61 up to 70 | 3 | 16,6% |
| Poor | 51 up to 60 | 3 | 16,6% |
| Very Poor | <40 | 12 | 66,8% |

 Based on the data in table 4.1 and 4.2, the result of pretest achieved there are 12 students get very poor score, 3 students get poor score, and 3 students get enough score. It means that there are 66,8 % students get very poor score 16,6% students get poor score, 16,6% students get enough score, in mastering vocabulary before using TGT method.

1. The result of Pre test in control group.

Table 4.3 The result of Pre test in control group.

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Subject | Score | Interpretation |
| 1 | A | 60 | poor |
| 2 | B | 70 | enough |
| 3 | C | 55 | poor |
| 4 | D | 60 | poor |
| 5 | E | 60 | poor |
| 6 | F | 50 | very poor |
| 7 | G | 65 | enough |
| 8 | H | 50 | very poor |
| 9 | I | 50 | very poor |
| 10 | J | 55 | poor |
| 11 | K | 50 | very poor |
| 12 | L | 65 | enough |
| 13 | M | 50 | very poor |
| 14 | N | 45 | very poor |
| 15 | O | 40 | very poor |
| 16 | P | 40 | very poor |
| 17 | Q | 50 | very poor |
| 18 | R | 55 | poor |
|  |  | 30 | very poor |
|  |  | ∑X = 1000 |  |

The computation of the mean score pre test

X = $\frac{∑y}{Ny}$ = $\frac{1000}{19}$ = 52, 6

The mean score of pretest was 52, 6.

 The numbers of the test given were 20 questions for 19 students.). This test is given to know the basic competence for all students and to know their earlier knowledge before they get treatment.

 Furthermore, the researcher analyze the frequency and the percentages of the student’s score for pretest, the result of frequency and the percentages will be presented as follows:

The frequency and percentages of the student’s score for pretest

Table 4.4The student’s vocabulary mastery

|  |  |  |  |
| --- | --- | --- | --- |
| Data interpretation | Criteria of Score | Frequency (f) | Percentages (p) |
| Excellent | 91 up to 100 | - | 0% |
| Very good | 81 up to 90 | - | 0% |
| Good | 71 up to 80 | - | 0% |
| Enough | 61 up to 70 | 3 | 15,7% |
| Poor | 51 up to 60 | 6 | 31,5% |
| Very Poor | <40 | 10 | 52,8% |

 Based on the data in table 4.3 and 4.4, the result of pretest achieved there are 10 students get very poor score, 6 students get poor score, 3 students get enough score. It means that there are 52,8% students get very poor score, 31,5% students get poor score, 15,7% students get enough score in mastering vocabulary.

1. **The result of Post-test**

The post-test format for control group held 21th May 2012 and the experimental group was same the date, but different in time. There were 19 students for control group and 18 students in experimental group.

1. The result of Post test in experimental group.

Table 4.5 The result of Post test in experimental group.

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Subject | Score | Interpretation |
| 1 | A | 80 | good |
| 2 | B | 80 | good |
| 3 | C | 80 | good |
| 4 | D | 80 | good |
| 5 | E | 65 | enough |
| 6 | F | 70 | enough |
| 7 | G | 75 | good |
| 8 | H | 65 | enough |
| 9 | I | 55 | poor |
| 10 | J | 70 | enough |
| 11 | K | 65 | enough |
| 12 | L | 80 | good |
| 13 | M | 55 |  poor |
| 14 | N | 80 | good |
| 15 | O | 40 | very poor |
| 16 | P | 70 | enough |
| 17 | Q | 40 | very poor |
| 18 | R | 65 | Enough |
|  |  | ∑**Y =1215** |  |

The computation of the mean score of post test

X = $\frac{∑x}{Nx}$ = $\frac{1215}{18}$ = 6.75

The mean score of posttest was 6.75

The numbers of the test given were 20 questions for 18 students. The posttest was done after treatment process (teaching vocabulary by using TGT method). It is done to know the final score and to know the student’s difference competence before and after they get treatment. Furthermore, the researcher analyzes the frequency and the percentages will be presented as follows:

 The frequency and percentages of the student’s score for posttest.

Table 4.6The student’s vocabulary mastery after taught by using TGT

|  |  |  |  |
| --- | --- | --- | --- |
| Data interpretation | Criteria of Score | Frequency (f) | Percentages (p) |
| Excellent | 91 up to 100 | - | 0% |
| Very good | 81 up to 90 | - | 0% |
| Good | 71 up to 80 | 7 | 38,9% |
| Enough | 61 up to 70 | 7 | 38,9% |
| Poor | 51 up to 60 | 2 | 11,1% |
| Very Poor | <40 | 2 | 11,1% |

 Based on the data in table 4.5 and 4.6, the result of pretest achieved there are 2 students get very poor score,2 student get poor score, and 7 students get enough score and 7 student get good score,. It means that there are 11,1% students get very poor score, 11,1% students get poor score, 38,9% students get enough score, and 38,9% students get good score in mastering vocabulary after using TGT method..

1. The result of Post-test in control group

Table 4.7 The result of Post test in control group.

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Subject | Score | Interpretation |
| 1 | A | 70 | enough |
| 2 | B | 80 | good |
| 3 | C | 70 | enough |
| 4 | D | 70 | enough |
| 5 | E | 65 | enough |
| 6 | F | 70 | enough |
| 7 | G | 70 | enough |
| 8 | H | 60 | poor |
| 9 | I | 60 | poor |
| 10 | J | 65 | enough |
| 11 | K | 50 | very poor |
| 12 | L | 75 | good |
| 13 | M | 40 | very poor |
| 14 | N | 50 | very poor |
| 15 | O | 55 |  poor |
| 16 | P | 45 | very poor |
| 17 | Q | 60 | poor |
| 18 | R | 65 | enough |
| 19 | S | 40 | very poor |
|  |  | ∑**Y =1160** |  |

The computation of the mean score of post test

X = $\frac{∑y}{Ny}$ = $\frac{1160}{19}$ = 6.05

The mean score of posttest was 6.05

The numbers of the test given were 20 questions for 19 students. . Furthermore, the researcher analyzes the frequency and the percentages will be presented as follows:

 The frequency and percentages of the student’s score for posttest.

Table 4.8 The student’s vocabulary mastery

|  |  |  |  |
| --- | --- | --- | --- |
| Data interpretation | Criteria of Score | Frequency (f) | Percentages (p) |
| Excellent | 91 up to 100 | - | 0% |
| Very good | 81 up to 90 | - | 0% |
| Good | 71 up to 80 | 2 | 10,5% |
| Enough | 61 up to 70 | 8 | 42,1% |
| Poor | 51 up to 60 | 4 | 21% |
| Very Poor | <40 | 5 | 26,4% |

 Based on the data in table 4.7 and 4.8, the result of pretest achieved there are 5 students get very poor score,4 student get poor score,8 students get enough score, and2 students get good score. It means that there are 26,4 % students get very poor score, 21% students get poor score,42,1% students get enough score, and10,5% students get good score in mastering vocabulary.

Table 4.9The different score between pretest and post test in control group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NO | Subject | Pre test(Y1) | Post test(Y2) | d=Y(Y1-Y2) | d2=Y2 |
| 1 | A | 60 | 70 | 10 | 100 |
| 2 | B | 70 | 80 | 10 | 100 |
| 3 | C | 55 | 70 | 15 | 225 |
| 4 | D | 60 | 70 | 10 | 100 |
| 5 | E | 60 | 65 | 5 | 25 |
| 6 | F | 50 | 70 | 20 | 400 |
| 7 | G | 65 | 70 | 5 | 25 |
| 8 | H | 50 | 60 | 10 | 100 |
| 9 | I | 50 | 60 | 10 | 100 |
| 10 | J | 55 | 65 | 10 | 100 |
| 11 | K | 50 | 50 | 0 | 0 |
| 12 | L | 65 | 75 | 10 | 100 |
| 13 | M | 50 | 40 | -10 | 100 |
| 14 | N | 45 | 50 | 5 | 25 |
| 15 | O | 40 | 55 | 15 | 225 |
| 16 | P | 40 | 45 | 5 | 25 |
| 17 | Q | 50 | 60 | 10 | 100 |
| 18 | R | 55 | 65 | 5 | 25 |
| 19 | S | 30 | 40 | 10 | 100 |
|  |  | ∑Y1=1000 | ∑Y2=1160 | ∑Y=155 | ∑Y²=1975 |
|  |  |  |  |  |  |

Table 4.10 The different score between pretest and post test in experimental group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| NO | NAME | Pre test(X1) | Post test(X2) | d=Y(X1-X2) | d2=X2 |
| 1 | A | 70 | 80 | 10 | 100 |
| 2 | B | 60 | 80 | 20 | 400 |
| 3 | C | 70 | 80 | 10 | 100 |
| 4 | D | 65 | 80 | 15 | 225 |
| 5 | E | 45 | 65 | 20 | 400 |
| 6 | F | 50 | 70 | 20 | 400 |
| 7 | G | 50 | 75 | 25 | 625 |
| 8 | H | 45 | 65 | 20 | 400 |
| 9 | I | 45 | 55 | 10 | 100 |
| 10 | J | 55 | 70 | 15 | 225 |
| 11 | K | 40 | 65 | 25 | 625 |
| 12 | L | 55 | 80 | 25 | 625 |
| 13 | M | 40 | 55 | 15 | 225 |
| 14 | N | 50 | 80 | 30 | 900 |
| 15 | O | 50 | 40 | -10 | 100 |
| 16 | P | 45 | 70 | 25 | 625 |
| 17 | Q | 40 | 40 | 0 | 0 |
| 18 | R | 40 | 65 | 25 | 625 |
|  |  | ∑X1=915 | ∑X2=1215 | ∑X=300 | ∑X²=6700 |

∑x=300

∑y=155

Nx=18

Ny=19

∑x2=6700

∑y2=1975

1. Find mean score of experimental group

Mx=$\frac{∑x}{Nx}$

Mx=$\frac{300}{18}$=16.6

1. Find mean score of control group

My=$\frac{∑y}{Ny}$

My=$\frac{155}{19}$=8.15

1. Find sum deviation of experimental group score

∑X2=∑X2-$\frac{(∑X)²}{Nx}$

∑X2=6700-

=6700-5000

=1700

1. Find sum deviation of control group score

∑y2=∑y2-$\frac{(∑y)²}{Ny}$

∑y2=1975-

=1975-1264,5

=710,5

1. Find the T-test formula

t=$\frac{Mx-My}{\sqrt{\frac{∑x^{2}+∑y^{2}}{Nx+Ny-2}(\frac{1}{Nx}+\frac{1}{Ny})}}$=

t=$\frac{16,6-8,15}{\sqrt{\frac{1700+710,5}{18+19-2}(\frac{1}{18}+\frac{1}{19})}}$

t=$\frac{8,45}{\sqrt{\frac{2410,5}{37-2}(\frac{19}{342}+\frac{18}{342})}}$

t=$\frac{8,45}{\sqrt{\frac{2410,5}{35}(\frac{37}{342})}}$

t=$\frac{8,45}{\sqrt{68,8(0,108)}}$

t=$\frac{8,45}{\sqrt{7,43}}$

t=$\frac{8,45}{2,72}$

t=3,10

After get the result of tcount, so tcount is consulted to ttable

db = Nx +Ny-2

 = 18+19-2

 = 37-2

 = 35

It is found that ttable for t0, 05 = 2.021

The result of the t-test was 3.10. the writer consulted the critical value on the t-table using the 5% (0,05) alpha level of significance and 35 degree of freedom which was 2.021. Since the obtained t-value was higher than the critical value on the table (3.10> 2.021) the difference was statistically significant. The result is we reject the null hypothesis.

1. **The Interpretation of Quantitative Data**

After conducting pre-test for experimental and control group, giving treatment for experimental group by using TGT(Team Game Tournament) and without treatment for control group and giving post test for experimental and control group, the researcher calculates the result of pre-test and post test of both experimental and control group

The deviation of vocabulary achievement for experimental group is 1700.The deviation of control group is710,5.Then the researcher count the mean score by using t-test formula, the result of vocabulary test is 3,10.After that the researcher continue to count the degree of freedom in order to know whether the data is significance or not ,the researcher count the degree of freedom(df)and the result is 35.After that, the researcher consulted to t-table 5%.Becausedf 35 in the table is nothing, so the researcher took the closest df of 35.It is df 40.And the result of df at t-critic significance level is 2,021.The result is clear that t-test >t-critic.

1. **Hypothesis Testing**

 It was found that the value of t-test is 3,10 while the critical value of t-test with significance level 5% and the degree of freedom 40 is 2,02.It means that the statistical value of t-test is higher than the t-test critic(3,10>2.02).This means that the null hypothesis(Ho)which said that “there is no significant effect of TGT method on vocabulary achievement of the first grade students at Mts Ma’arif NU Karangan in the academic year 2011-2012”is rejected. And the alternative hypothesis (Ha), which was formulated “there is significance effect of TGT method on vocabulary achievement of the first grade students at Mts Ma’arif NU Karangan in the academic year 2011-2012”, is accepted with significance level 5%.It shows that TGT Method is effective to be use.

1. **Discussion**

The teaching of English is very important. Whereas today English is the word widely studied foreign language. It is focused on the communicative proficiency rather than on more material of structure. Especially in vocabulary, vocabulary is very important and gives big major effect in the process of English. By having high and much vocabulary it will help us to learn the four basic English skills easier.

Beside that, in practice of teaching learning we can use group. Jeremy Harmer (2007:43) said that, “There are many occasions when the best type of classroom organizations a teacher working with the class as a whole group.” This is useful for presenting information and for controlled practice.

The value of t-statistic is higher than t-critic at significance level 5 %( 3, 10>2, 02) It showed that the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected. It is concluded that there is significant effect of TGT method on vocabulary achievement of the first grade students at Mts Ma’arif NU Karangan in the academic year 2011-2012.

The result indicates that using TGT method is important in teaching vocabulary achievement .It is clear that TGT method can give a better result in learning process. In the experimental group that was learning English through TGT method; the students looked highly motivated and interested. They seemed enthusiastic and enjoyed learning English. All of students participate in learning English. They were doing the achievement test given activity. On the other hand, in the control group that was learning by lecturing, the students were passive and they only take care to the teacher explanation. They were less active in doing the English exercise given. So, using TGT in teaching learning process can make the students more relax, interested and enthusiastic in learning English. Furthermore, English not considered as difficult and boring knowledge it is proof that TGT method can make easy and enjoy for teacher and learner of English. By using TGT method in teaching learning process, it can encourage the student’s motivation to learn and to improve vocabulary achievement.