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## ABSTRACT

**Nurdiana, Evi.** 2016. Group Work Technique in Teaching Reading Comprehension to the tenth grade students of SMKN Tulakan 2015/ 2016 Academic Year. **Thesis**, English Education Department, Tarbiyah Faculty, State Islamic College of Ponorogo. Advisor Ahmad Nadhif M.Pd.

**Key Words:** Group Work technique, Reading Comprehension

This study aims at investigating the students' reading skill achievement in Group Work technique for tenth grade students of SMKN Tulakan Pacitan. Group Work is a generic term covering a multiplicity of technique in which two or more students are assigned a task that involves collaboration and self-initiated language.

The design of the research was Quasi Experiment and used Nonequivalent (Pretest and Posttest) control-Group Design. This study was carried at the tenth grade students of SMKN Tulakan in May, 24<sup>th</sup> 2016. This study assigned two classes, they are 23 students of XA as an experiment class which taught using Group Work technique and 21 students of XB as control class which not being taught using Group Work technique.

The result shown that average score of XA's pretest was 33,6 and posttest was 77,8 whereas XB's pretest was 36,9 and posttest was 59,2. The result of the research showed that in 5% signification level  $t_0 = 2,578$  and  $t_t = 2,02$ , so  $t_0 \geq t_t$ , whereas 1% significant level  $t_0 = 2,578$  and  $t_t = 2,71$ , so  $t_0 < t_t$ . Based on the result, it could be concluded that  $t_0 < t_t$ . It means that  $H_0$  was accepted and  $H_a$  was rejected.

The result of data analysis above, the researcher concluded the students taught using Group Work technique achieved a better score but not significant at SMKN Tulakan Pacitan. In other word, the Group Work technique was not very effective for XA and XB to tenth grade of SMKN Tulakan Pacitan.

## CHAPTER I

### INTRODUCTION

#### A. Background of Study

Pang, Muaka, Bernhardt, & Kamil says: “Reading is very important skill because it can improve the other skills”<sup>1</sup>. It is one of the skills to get knowledge and experience.

According to Nunan, “Reading is a process of decoding written symbols, working from smaller unit (individuals letters) to larger one (word, clause, and sentence).<sup>2</sup> It means that reading is process to understand the text.

In reading text, the students must get the main idea from the text. Based on interview with English teacher Mrs. Suci, many students feel difficult because limited vocabulary and memory. Some of them never practice to read the text because they don't have passion to read.<sup>3</sup>

Expect interview, the researcher do observation to students' reading skill. In fact, many the students low achievement in examination. And the researcher gives opinion that the students need comprehension to comprehend a text.<sup>4</sup>

Comprehension is making a sense out of a text as the result of interaction between the perception of graphic symbols that represent language and the reader's prior knowledge. Therefore, reading comprehension is a process of getting

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<sup>1</sup> Elizabeth S. Pang, Angaluki Muaka, Elizabeth B. Bernhardt, & Michael L. Kamil. Teaching reading: Educational Practices Series-12.(University of Illinois at Chicago).p.8

<sup>2</sup> David Nunan, Language Teaching Methodology. (New York: Prentice Hall, 1991).p. 20

<sup>3</sup> Interview. May, 23<sup>rd</sup> 2016. 09.00 am

<sup>4</sup> Observation. May, 23<sup>rd</sup> 2016. 10.00 am

information from the text context and combining disparate elements into new whole. It is a process of using reader's existing knowledge to interpret text in order to construct meaning.<sup>5</sup> So, the reading comprehension very needed to know main idea from the text.

In accordance to the students' problems, the researcher should think of a suitable strategy or technique to help students to increase their reading comprehension. The strategy or technique is expected be able to engage students actively involved in the process of reading.

One of the strategies in reading that can be used to improve students' reading comprehension is Group Work technique. According to Douglas, "Group work is one reason for bringing together a group of people who have a common problem is very simply that they will all have tried in various ways to find a solution. Some will have been more successful than others and some may have been totally defeated by the problem. If it now becomes possible for the individuals in the group to share their experience in the ways in which they coped or did not coped".<sup>6</sup> The advantages of this strategy are it indicates to the members that this is their group and their opinions about how it is working are of great value, and it also spreads the views to a wider ambit.

The major goal of the Group Work technique is implementation students' reading comprehension. The students must know the contents of the text, after the students

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<sup>5</sup> Bambang Yudi Cahyono, & Nur Mukminatn., Techniques and Strategies to Enhance English Language Learning. (State University of Malang Press, 2011). p.58

<sup>6</sup> Tom Douglas, Basic Group work: Second Edition. (Tavistock Publications Limited:2000).p.40

discuss with other members group. Group Work technique can be used as reference in teaching reading comprehension.

Concerning with the case, the writer is interested in investigating the effectiveness of this strategy or technique in implementation students' reading comprehension.

### **B. Limitation of the Study**

This study focused on the effectiveness of using group work technique in teaching reading comprehension of descriptive text, narrative text, expository text, procedure text, and etc. for tenth grade students at SMKN Tulakan Pacitan in academic year 2015/ 2016.

### **C. Statement of the problem**

Based on the background above, the problem of this study is formulated as follows:

Does the students who are taught using Group Work technique get better score than those who are not taught using Group Work technique?

### **D. Objectives of the Study**

The objective of this study to investigate the students' reading skill achievement between the students who are taught using Group Work technique and who are not taught using Group Work technique.

## **E. Significance of the study**

The results of this study are expected:

### **1. Theoretical significance**

- a. This study is expected to give teachers, particularly English teacher, an input concerned with the effectiveness of group work technique in teaching reading to help students easy to comprehend the text.
- b. This research is expected to give students, particularly in tenth grade students of SMKN Tulakan Pacitan in academic year 2015/ 2016.

### **2. Practical Significance**

#### **a. To the Teacher**

This research makes the teacher easy to explore idea when using group technique and make reading comprehension in a group work interested.

#### **b. To the Students**

This research is purposed to make the students be spirit when reading comprehension classroom.

### **3. To the Researcher**

In order to know the effectiveness of using Group Work technique in teaching reading comprehension.

### **4. To the Readers**

This study expected to give contribution to readers, particularly the students of English Department of STAIN Ponorogo in enriching reference concerned with the effective of Group Work technique in teaching reading to helping comprehending material.

## **G. Organization of the Thesis**

The researcher writes the thesis in V chapters; as follows:

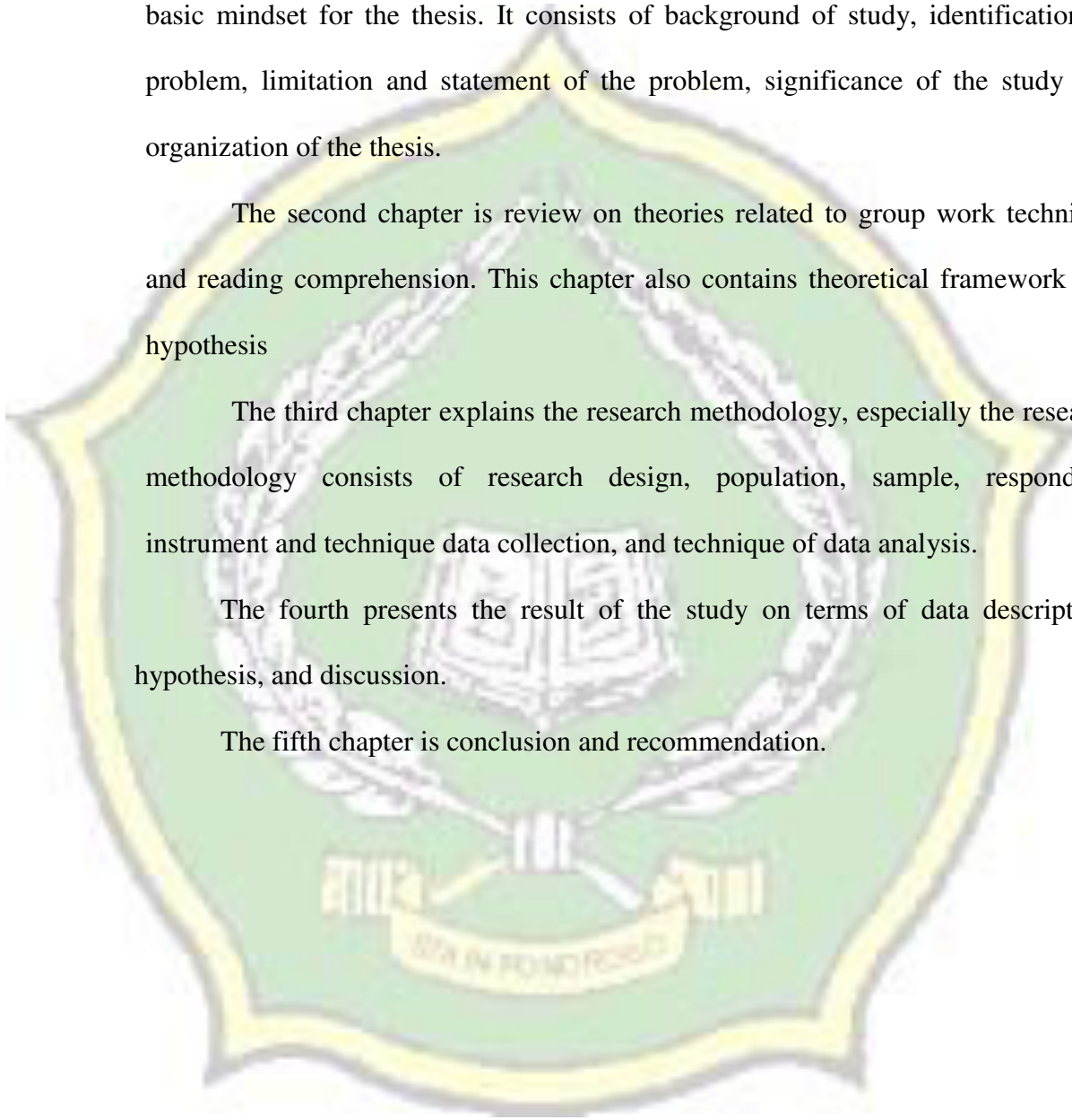
The first chapter is devoted to give general description and takes a role as the basic mindset for the thesis. It consists of background of study, identification of problem, limitation and statement of the problem, significance of the study and organization of the thesis.

The second chapter is review on theories related to group work technique and reading comprehension. This chapter also contains theoretical framework and hypothesis

The third chapter explains the research methodology, especially the research methodology consists of research design, population, sample, respondent, instrument and technique data collection, and technique of data analysis.

The fourth presents the result of the study on terms of data description, hypothesis, and discussion.

The fifth chapter is conclusion and recommendation.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### A. Theoretical Analysis

##### 1. Reading Comprehension

###### a. Definition of Reading Comprehension

Nunan says, “Reading is a fluent process of readers combining information from a text and their own background knowledge to build meaning. The goal of reading is comprehension”.<sup>7</sup>

Shanahan says, “Reading comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. Extracting meaning is to understand what an author has stated, explicitly or implicitly. Constructing meaning is to interpret what an author has said by bringing one’s capacities, abilities, knowledge, and experiences to bear on what he or she is reading. These personal characteristics also may affect the comprehension process ”.<sup>8</sup>

From the explanation above, it can be inferred that reading comprehension is the process of simultaneously to get information from a text.

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<sup>7</sup> David Nunan, Practical English Language Teaching 1<sup>st</sup> Edition.(McGraw- Hill Contemporary:2003).p.68

<sup>8</sup>Timothy Shanahan , Improving Reading Comprehension in Kindergarten Through 3rd Grade. (Ies Practice Guide: September 2010). p.5



## b. Strategy in Reading Comprehension

Reading is frequently seen a passive skill, but it is active skill. Readers need to be active in the learning, they need to be able to relate and to understand the text.<sup>9</sup> According to Yudi Pamungkas and Mukminatn (2011), there are some kinds of reading to help the readers be active and careful in reading, they are:

### 1. Mapping

Mapping is identifying meaning of a text through features. Mapping, also called clustering or webbing, is a visual form of brainstorming. When readers actually see ways their ideas connect to the next, they begin to think more creatively.

### 2. Skimming

Skimming is aimed at getting quickly the main ideas and the purposes of reading selection. Skimming is very useful aid o help students find out information wished quickly. In skimming, readers just see the text at a glance; readers just survey the next without carefully reading it. They only use the clues in the book to get information needed.

### 3. Scanning

Unlike skimming that is looking for getting the most important information, the main ideas of a text, scanning is aimed at looking for and getting the details, facts, numbers, and specific bits of information in the text. Readers apply

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<sup>9</sup> Caroline Woods, Teaching and Assessing Skill in Foreign Language (Cambridge: University Press;2005).p. 62

scanning in reading to locate specific information and get an initial impression of whether the text is suitable for a given purpose.<sup>10</sup>

### **c. Elements in Reading Comprehension**

There are three elements of reading comprehension. Comprehension entails three important elements; reader, text, and activity. Readers refers to the person who is doing the reading, the text refers to the material to be comprehended, and activity refers to the ongoing process of achieving deep understand.

#### **1. Reader**

(Snow: 2002: 13) states that the reader, when he or she is the purpose of comprehending a text, must have a wide range of capacities and abilities. They include cognitive capacities, motivation, and various types of knowledge. The cognitive capacities include attention, memory, critical analytic ability, inference, visualization ability, etc. Meanwhile, motivation refers to the purpose of the reader in reading, an interest to text being read, and self efficacy as a reader. Finally, various type of knowledge includes vocabulary mastery, domain and topic knowledge, linguistic and discourse knowledge, and knowledge for certain comprehension strategies.

#### **2. Text**

The features of the text have a large effect on comprehension. Comprehension does not occur by simply extracting meaning from text. During

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<sup>10</sup> Bambang Yudi Cahyono & Nur Mukminatn, *Techniques and Strategies to Enhance English Language Learning*. (State University of Malang Press, 2011). p. 66

reading, the reader constructs different representations of the text that are important for construct different representations include.

### 3. Activity

Reading does not vacuum. It is done for a purpose, to achieve some end. A reading activity involves one or more purposes, some operations to process the text at hand and the consequences of performing activity. The purpose is influenced by a cluster of motivational variables, including interest and prior knowledge (Yudi Cahyono & Mukminatn: 2011).<sup>11</sup>

## 2. Group Work Technique

### a. Definition of Group Work Technique

Group Work is a generic term covering a multiplicity of technique in which two or more students are assigned a task that involves collaboration and self-initiated language. Kasim says, “Group Work as a learning activity which involves in small group learners working together”.<sup>12</sup>

In groups, students tend to participate more equally, and they are also more able to experiment and use the language than they are in a whole-class arrangement.<sup>13</sup> Groups are not the prerogative of professional helpers. Students are to be seen as a means of support and help for any one who cares to try to form, or work within, a group.<sup>14</sup>

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<sup>11</sup> Bambang Yudi Cahyono & Nur Mukminatn. Techniques and Strategies to Enhance English Language Learning. (State University of Malang Press, 2011). p. 88-89

<sup>12</sup> Usman Kasim, Implementation of Group Work in The Classroom. *Lingua*, 12(1);97-106.

<sup>13</sup> Ibid.p.2

<sup>14</sup> Tom Douglas, Basic Group work: Second Edition. (Tavistock Publications Limited:2000)p.7

“Groups can develop quite warm, friendly atmospheres in which members feel comfortable and accepted in their membership. This is often a very good thing, but most groups have a specified time in which to achieve their goals, after which members should be able to take away with them what they have gained inside the group and apply it in their lives outside it. In one sense, nearly all groups have to develop the commitment of their members, then use that commitment to invest energy in the group to achieve its goals. But in the process they have also to ensure that the group’s members consolidate and integrate whatever it is that they have benefited from while in the group. Many follow-up reports of apparently successful groups show that once their members are deprived of the support of the group, the pressures, which may have been the original reason for their need of the group, reassert themselves in the ex-member’s life to the gradual erosion of the group’s benign and developmental influence unless such consolidation has taken place” (Douglas: 2000:8).<sup>15</sup>

### **b. Advantages in Group Work**

In Group Work activities, students are encouraged to:

1. share ideas and find solutions to problems.
2. work closely with students from a range of different cultural and social backgrounds.
3. develop key skills, e.g. team working and time management which are essential for most jobs.
4. discover specific strengths in group work.
5. learn how to deal with challenge and conflict.
6. gain new, additional, and even creative on study topic.
7. make new friends.
8. develop communication skills.<sup>16</sup>

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<sup>15</sup> Ibid p.8-10

<sup>16</sup> Colin Neville. Making Groupwork Work. (the Learnhigher CETL at the University of Bradford).

### c. Stages for Group Work Development

According to Tuckman, there are five stages for Group Work development, as follows:

1. Forming Stage

Group members rely on safe, patterned behavior and look to the group leader for guidance and direction.

2. Storming Stage

Characterized by the competition and conflict in the personal- relations dimension and organization in the task- function dimension.

3. Norming Stage

Interpersonal relations are characterized by cohesion. Group members are engaged in active acknowledge of all members' contributions, community building and maintenance, and solving various group issue.

4. Performing Stage

The performing stage is not reached by all groups. If group members are able to evolve to this stage four, their capacity, range, and depth of personal relations expand to true interdependence. In this stage, students can work independently, in subgroups, or as a total unit with equal facility.

5. Adjourning Stage

Involves the termination of task behaviors and disengagement from relationship. A planned conclusion usually includes recognition for

participation and achievement and an opportunity for members to say personal goodbyes.<sup>17</sup>

#### **d. The Strategies for Effective Group Work**

Using strategies such as the following are a good way to gradually introduce group work to students. There are three strategies for effective Group Work in classroom:

##### **1. Think, Pair, and Share**

This activity the advantages of which are involves students first of all spending time on their own considering a problem or issue before pairing up with a partner to compare notes.

##### **2. Listening and Talking Triad**

Working in threes, each student takes it in turn to be the talker, questioner or recorder.

##### **3. Snowballing**

This activity encourages everyone, including students who are normally more reluctant to speak, to first of all come up with their ideas, then share them with a partner and finally in a larger groups.<sup>18</sup>

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<sup>17</sup> Tuckman .B., Teaching Effectiveness Program: Managing Group.1965.p.1-2

<sup>18</sup> G. Stewart. Promoting & Managing Effective Collaborative Group Work. (Belfast Education and Library Board:May 2014).p. 84-103

## B. Previous Research Finding

There are two previous related studies, which are related to the writer's present study: First, Siti Indrawati's thesis entitled "The Effectiveness of Group Work Technique In Teaching Speaking At The Tenth Grade Students of MA Al-Islam Joresan Mlarak Ponorogo In Academic Year 2012/ 2013". Her statements of the problem are: 1. how is speaking ability of the students who are taught by group work technique at the tenth grade students of MA Al- Islam Joresan Mlarak Ponorogo?. Speaking ability of the students who are taught by group work technique in high score are 87-90 and in low score are 79-82.

2. How is speaking ability of the students who are not taught by group work technique at tenth grade students of MA Al- Islam Joresan Mlarak Ponorogo?. Speaking ability of the students who are not taught by group work technique in high score are 81-85 and low score are 69-72. 3. Is there any significant difference on speaking ability for students' who are taught by group work technique at tenth grade students of MA Al- Islam Joresan Mlarak Ponorogo?. Based on analysis of data, there was a significant technique and who are taught by group work technique of the tenth grade students of MA Al- Islam Joresan Mlarak Ponorogo.<sup>19</sup>

Second, Eka Puspitasari's thesis entitled "The Use of Group Work Technique in Teaching Speaking (Descriptive Research in MTs. Darul Istiqomah Ponorogo) in academic year 2013/ 2014". Her statements of the problem are: 1. How does the teacher apply group work technique in teaching speaking to the

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<sup>19</sup> Siti Indrawati, The Effectiveness of Group Work Technique In Teaching Speaking At The Tenth Grade Students of MA Al- Islam Joresan Mlarak Ponorogo In Academic Year 2012/ 2013

seventh grade students of MTs. Darul Istiqomah Ponorogo?. The implementation of group work technique had seven stages in applying it, they are: the teacher explained that his students will study in groups, teacher demonstrated it in front of the class alone or with some students, teacher changed the whole class into groups, etc. 2. What are the advantages and disadvantages of using group work technique in teaching speaking to the seventh grade students of MTs. Darul Istiqomah Ponorogo?. The advantages; group work makes direct interaction with others, group work increase student's cooperation, respect and care for the others. And the disadvantages of group work, they are: group work makes the class become crowded, makes passive students be more passive, this is needs a long time.<sup>20</sup>

The different with researcher's thesis is the researcher's thesis using reading comprehension skill with Group Work technique. The researcher wants to know the students' achievement in reading comprehension. Except that, the reading comprehension using Group Work technique can improve their vocabulary and can practice to read a text with other member of group.

### **C. Theoretical Framework**

Theoretical framework is a concept in the thesis about how the theories can be related with the factors which are identified as the important problems.

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<sup>20</sup> Eka Puspitasari, The Use of Group Work Technique in Teaching Speaking (Descriptive Research in MTs. Darul Istiqomah Ponorogo) in academic year 2013/ 2014



The thesis has experimental research, which explaining below:

Theories Description is: - Teaching reading comprehension (Variable X).

- Group work (Variable Y)

Based on the theories description above, the writer can uses the theoretical framework, they are:

- a. If Group Work technique is effective in teaching reading, it can improve the reading skill achievement.
- b. If Group Work technique is not effective in teaching reading, so it can not improve the reading skill achievement.

### **C. Hypothesis**

Hypothesis in this research are:

$H_a$  : Group work technique is effective to teach reading comprehension for tenth grade of SMKN Tulakan Pacitan in academic year 2015/ 2016.

$H_0$  : Group work technique is not effective to teach reading comprehension for the tenth grade of SMKN Tulakan Pacitan in academic year 2015/ 2016.

## CHAPTER III

### RESEARCH METHODOLOGY

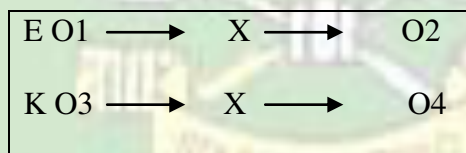
#### A. Research Design

This research used quasi experimental research. According to Darmawan, “*quasi eksperimen adalah sebuah metode yang digunakan untuk memberikan perlakuan pada sekumpulan orang, kemudian hasil dari perlakuan tersebut dievaluasi*” (quasi experimental was a method used to give a treatment to group of people, then the result of that treatment was evaluated)<sup>21</sup>.

This research has two variables, independent and dependent:

- Independent variable : Group Work Technique
- Dependent variable : Reading Comprehension

The research design was as follows:



Notes:

E : Experiment class (the students who are taught use group work technique)

<sup>21</sup>DeniDarmawan, MetodePenelitianKuantitatif. (PT. RemajaYosdakarya2013). p. 241-242

K : Control class (the students who are taught use conventional method)

O1 : Pretest for the experiment class

O3 : Pretest for the control class

X : Treatment

O2 : Posttest for the experiment class after using group work method

O4 : Posttest for the control class after using conventional method.<sup>22</sup>

This research has two classes, which were experiment and control class as the subject. There was pretest before treatment to make the students in the same condition and to know the students' reading comprehension, and posttest after treatment to measure the effectiveness the treatment.

The researcher used two classes as the subjects, which were XA as an experiment which applied Group Work technique and XB as control class which applied conventional method. Those treatments used to teach reading comprehension of the descriptive text material.

This research used posttest to conduct the data after treatment in each of class. Pretest used in each class to made the students begin with same condition.

Here the researcher would explain the implementation of Group Work technique in teaching reading comprehension. It was divided into some steps:

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<sup>22</sup>Suharsimi Arikunto, *Prosedur Penelitian (Suatu Pendekatan Praktik: Edisi Revisi VI)*. (PT RINEKA CIPTA, Jakarta, 2006). p.86

1. the teacher made group consists of 4-5 students.
2. the teacher gave the picture of president.
3. the teacher told each group to mention what was known of the picture.
4. after this, the teacher explained of descriptive text and the physical characteristic of the picture.
5. The teacher provided picture along with the descriptive text, then every group read and understood the text.
6. After that, the teacher gave instruction to all groups to present the text.
7. after completion of the present, the teacher provided the appropriated questions of the contents to determine the extended of understood performed with their group, the group should help answer if one of its members could not answer.
8. furthermore, teacher provided practice MCQs discusses descriptive text.
9. the teacher gave 15 minutes for each group to worked in groups.
10. once completed, the group representatives collected a matter that has been done.
11. the teacher swapped the work of each group to another group.
12. after each group got about exchanged, the teacher asked us to corrected jointly.
13. the teacher students the opportunity to ask question about things that are not yet understood.

### c. Data Analysis Step

Next, analyzing the data after the data was collect by the researcher. It begins from:

1. Collect the posttest score from experiment and control class.
2. Test the data using t-test.

## B. Population and Sample

The population in this research were all of the students XA as experiment class and XB as control class of SMKN Tulakan Pacitan 2015/2016 Academic Year.

A sample was a set of elements selected in some way from a population. Sample was smaller number of the accessible population.<sup>23</sup> It used to make process data collection more effective, efficient, objective conducted. The Sample was XA class and consists of 23 students.

## C. Data Collection Instrument

Instrument was tool of collecting data that was used by the researcher. According to Arikunto, the device the researcher used to collect data was called instrument.<sup>24</sup> In this research the instrument that was used by researcher was the test. The test was used to analyze whether any significant difference about the students

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<sup>23</sup> Mohammad Adnan Latief, Research Method On Language Learning An Introduction (Malang: UM Press, 2013)p.185

<sup>24</sup>Ibid, p. 126

who were taught by group work technique on reading comprehension and the students taught conventional method on reading comprehension at SMKN Tulakan.

The data in this research were the result of test. The data were taken from reading question. In this studied, the data taken from the result of two group samples. The first group was students who were taught by group work technique and second the students who were taught by conventional method.

Then the research analyzed the test result to know the difference of the students reading achievement and then interpreted it.

#### D. Validity and Reliability

##### 1. Test of validity

Heaton defines the validity of a test as extent to which it measures what it was suppose measure and nothing else. In this research, the writer counts the validity of writing test. To measure the validity this research used product moment. According to Pearson the pattern of product moment was:<sup>25</sup>

$$r_{xy} = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2] \cdot [n\sum Y^2 - (\sum Y)^2]}}$$

$r_{xy}$  = digit of index Product Moment Correlation

$\sum X$  = the total score X

$\sum Y$  = the total score Y

$\sum xy$  = the total of result multiplication between score X and Y

<sup>25</sup>RetnoWidyaningrum, StatistikEdisiRevisi,(Ponorogo : Stain Press, 2009).p.107

N = total respondent.

With df or db was  $n-r$   $17-2= 15$  in 5 % significance the r index was 0,428. When the index of  $r_{xy}$  was below the r index it could be concluded that the items were not valid instruments. Thus, the item said to be valid instruments if the coefficient of correlation ( $r_{xy}$ ) was more than 0,428.

To measure the validity of instrument of research, the researcher put the total sample 17 respondents. The researcher gave 20 multiple choice questions for this class. So, the researcher calculated the validity test from the result of multiple choice questions.

From the result calculation item validity instrument, could be concluded in table 3.1 as follow:

**Table 3.1 the result of validity calculation**

Item	"r" calculated	"r" index	Notes
1.	0,841	0,482	Valid
2.	0,771	0,482	Valid
3.	0,752	0,482	Valid

4.	0,619	0,482	Valid
5.	0,712	0,482	Valid
6.	0,426	0,482	Invalid
7.	1,041	0,482	Valid
8.	0,752	0,482	Valid
9.	0,612	0,482	Valid
10.	0,595	0,482	Valid
11.	0,413	0,482	Invalid
12.	1,112	0,482	Valid
13.	0,832	0,482	Valid
14.	0,902	0,482	Valid
15.	0,832	0,482	Valid
16.	0,752	0,482	Valid
17.	0,554	0,482	Valid
18.	1,045	0,482	Valid
19.	0,883	0,482	Valid
20.	0,871	0,482	Valid

## 2. Test of reliability

Reliability was the ability of a measurement instrument to measure the same thing each time it was used. There were three important factors involved in assessed reliability, the first being stability, issue, and inter-observer consistency.<sup>26</sup>In this research, the writer would count the reliability of reading test. The formula;

$$r_{ii} = \left( \frac{n}{n-1} \right) \left( \frac{S^2 - \sum pq}{S^2} \right)$$

Formula of variant:

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<sup>26</sup>Kultar Singh, Quantitative Social Research Method. (Sage Publications India Pvt Ltd Copyright ©2007).p.76-77



$$S^2 = \frac{\sum x^2 - \frac{(\sum x)^2}{N}}{N}$$

Notes:

K= number items in the instrument

n= number item

p= proportion of individuals who answer an item correctly

q= proportion of individuals who answer an item with wrong

pq= a variant of the one who is scored in a dichotomous item

$$r_{ii} = \left( \frac{n}{n-1} \right) \left( \frac{S^2 - \sum pq}{S^2} \right)$$

Reliability of the results above calculations was the value of the variable instrument reliability was 1,200. And the test was reliable because the index of reliability test was 1, 200, it was higher than r index that showed 0,482.

## **E. Normality and Homogeneity**

### **1. Normality**

The simplest test for normality was to graph the frequency distribution data. Given the simplicity of it, then testing the normality of the data was high dependent on the ability to examine data in plotting the data, if the amount of data were many and deployment were not 100% normal (not perfect), then the conclusions drawn were likely wrong. To avoid this mistake, it was better used some formulas that have

been tested truth that was Kolmogorov- Smirnov. Each of two populations being compared must follow a normal distribution. This could be tested by this.

## 2. Homogeneity

Homogeneity test was needed to do before found a different significant of data. This test purposes to known whether the data of research homogeny or heterogenic, so by this could said that the variant of data in research was homogeny. The researcher used Harley formula to the homogeneity of data

The formula was:

$$F (\max) = \frac{Var \max}{Var \min}$$

## F. Technique of Data Collection

### Test

The researcher gave multiple choice tests to know reading comprehension of the students before and after being taught by using Group Work Technique.

On April, 16<sup>th</sup> 2016 the researcher came to school and requested permission from the principle to the conduct research toward the headmaster of SMKN Tulakan. The researcher conducts to observe and discuss with the English teacher of SMKN Tulakan about Syllabus, lesson plan, and the material that was used.

On May, 24<sup>th</sup> 2016, the researcher gave the pretest on descriptive text and taught English reading without treatment. The researcher gave the pretest for the students to answer the multiple choice question in descriptive text based on question.

On May, 25<sup>th</sup> 2016 the researcher gave treatment for the students with Group Work technique. On May 26<sup>th</sup> 2016, the researcher gave second treatment that was relevant with the material of teaching learning.

On May, 27<sup>th</sup> 2016 the researcher gave a post test to the students with multiple choice question to base on Group Work in from descriptive text.

**Table 3.2; The Research Time**

Date	Activities
May, 24 <sup>th</sup> 2016	Pretest
May, 25 <sup>th</sup> 2016	First treatment with Group Work technique
May, 26 <sup>th</sup> 2016	Second treatment with Group Work technique
May, 27 <sup>th</sup> 2016	Posttest

### G. Technique of Data Analysis

In this research, the researcher used statistical data analysis technique to know the different score between the students' reading comprehension before and after being taught by group work technique. This technique of data analysis belongs to quantitative data analysis and the data were analysis statistically by using T-test. According to Anas Sudjono (1999), the formula of T-test is;

1. The formula of mean variable 1 and variable 2

$$M_x = M' + i\left(\frac{\sum fx'}{N}\right) \quad M_y = M' + i\left(\frac{\sum fy'}{N}\right)$$

2. Score of Standard Deviation of variable X and variable Y

$$SD_1 = i\sqrt{\frac{\sum fx'^2}{n_1} - \left(\frac{\sum fx'}{n_1}\right)^2} \quad SD_2 = i\sqrt{\frac{\sum fy'^2}{n_2} - \left(\frac{\sum fy'}{n_2}\right)^2}$$

3. Standard error the mean of variable X and variable Y

$$SE_{mx} = \frac{SDx}{\sqrt{n1-1}} \qquad SE_{my} = \frac{SDy}{\sqrt{n2-1}}$$

4. Score Standard the mean of variable X and variable Y

$$SE_{m1-m2} = \sqrt{SE_{m1}^2 + SE_{m2}^2}$$

5. The formula of Test T

$$t_0 = \frac{M1 - M2}{SE_{m1-m2}}$$

6. Interpretation

Interpretation was consulted the result between  $t_t$  (t table) and  $t_0$  (t observation). If  $t_0$  higher than  $t_t$ , so,  $H_0$  was refused and  $H_a$  received. If  $t_0$  smaller than  $t_t$ ,  $H_0$  received and  $H_a$  was refused.

Notes:

$M_1$  = Mean of Variable x

$M_2$  = Mean of Variable y

i = Interval

$\sum fx'$  = Sum of frequency and x'

$\sum fy'$  = Sum of frequency and y'

$N_x$  = the number of sample variable x

$N_y$  = the number of variable y

$SD_1$  = Standard deviation of variable x

$SD_2$  = Standard deviation of variable y

$SE_{M1}$  = Standard Error of mean x

$SE_{M2}$  = Standard Error of mean y

$SE_{M1-M2}$  = Standard error the differences two sample of mean

$t_0$  = t- test.<sup>27</sup>



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<sup>27</sup>RetnoWidyaningrum, Statistika: EdisiRevisi.(PustakaFelicha. Januari 2013).p.163-164

## CHAPTER IV

### RESEARCH RESULTS

#### A. Data Description

##### 1. Procedure of Experiment

This research used experiment research which made one class as the sample, there was X A as experiment class. The number of the experiment class was 23 students.

Firstly, the students were gave pre test to made them in some condition or homogeneity before beginning the research. It used for about 30 minutes. It was hold on May, 24<sup>th</sup> 2016.

Secondly, the first treatment of Group Work technique held on May, 25<sup>th</sup> 2016. The material was descriptive text. The students must apply the Group Work technique to comprehend the text. The second treatment held on May, 26<sup>th</sup> 2016. The material was descriptive text too. But has different topic with the first treatment.

Fourthly, that was posttest. It was hold on May, 27<sup>th</sup> 2016. It used to measure whether the Group Work technique was success or not in teaching reading comprehension.

The posttest and pretest took descriptive text, but different topic and items. It used to know the true result whether and method was effective or not. The test items

were constructed based on the indicators and the material which were suitable with the themes and sub themes suggested in English book for the tenth grade of senior high school. The pretest and posttest were objective test which consist 20 items and all of item were multiple choices. The total scores are 100 and the value of each correct item was 1.

The Group Work were method which never to be applied for the students before in teaching and learning process. This method made the students to comprehend the text easily because this method applied with other member of group. The result most of the students did not interest with the text when do the pretest.

This research needed much time to introduce, to apply and to solve the problem in comprehended the text. So, the students could more active and interested with the method

## **2. Procedure of Control**

This research was taken in X B as a control class which applied PQRST strategy. It is an instructional strategy that has been shown to be effective to improve a reader's understanding, and students' ability to recall information. In other words, the reader is more likely to learn, and to learn more, of the material students is reading.

The number of X B class was 21 students. There were four meeting in the procedure control class. The first meeting pretest was held on May, 24<sup>th</sup> 2016, first

and second treatment was hold May, 25 and 26<sup>th</sup> 2016. Finally posttest was held on May, 27<sup>th</sup> 2016.

The material which was taught to the students was same with experimental class. That was one of principles in the experiment research different treatment with the same material.

The PQRSST strategy has been empirically shown to be able to improve students' reading comprehension. That strategy follows five steps: Preview, Question, Self-recite and Test (PQRSST). In Preview, preview the entire chapter-skim through it all so the students known what students were going to be covering. Question, the students made some question about students read. Read, the students could actually read that section. Think about meaning and relate this to other things students known about this and similar topics. Self-recitation, once the students have finished reading, check back against the text, and note the things you missed out. Test, the teacher gave test to known the students' reading comprehension.

In this research, it used participate research with the teacher. The researcher explains the material which was helped by the English teacher.

The teaching and learning process used conventional method has some steps, they are:

1. the teacher provided picture along with the descriptive text, then every students read and understood the text.
2. the teacher asked the students to read and comprehend.



3. after this, the teacher asked the students to made some questions about those text.
4. The teacher asked the students to answer their questions with back to read against.
5. After that, the teacher gave instruction to students to summarize the text with their language and comprehend.
6. after finished, the teacher gave test to the students.
8. the teacher explained about descriptive text material.

To know whether Group Work technique was effective or not in teaching reading comprehension, the researcher would describe the data which was conducted in SMKN Tulakan. The data were pretest and posttest from experiment class and control class.

The data conducted with two groups, those were pretest and posttest of reading comprehension from experiment group (variable x) and posttest of reading comprehension from control group (variable y).

**Table 4.1; the Data of Pretest in Experiment Class**

No.	Name of Students	Score
1.	A.P	35
2.	A	25
3.	B.P	35
4.	D.L	30
5.	D.R.S	50
6.	D.P.S	35
7.	E.Y	25
8.	E.N	30
9.	F.E.R	45
10.	F	15
11.	L.S	45
12.	M.S.P	20
13.	M	25
14.	N.T.M	65
15.	N.W	25
16.	P.T	50
17.	R.D.J	55
18.	S	20
19.	S	40
20.	S	40
21.	U.Y	10
22.	W.D.A	30
23.	Y.M	25

**Table 4.2; the Data of Pretest in Control Class**

No.	Name of Students	Score
1.	A.S	35
2.	A	35
3.	B.S	30
4.	D.S	30
5.	D.M	30
6.	E.S	35
7.	E.N	25
8.	F.S.U	35
9.	J	50
10.	K	20
11.	M.D.C	25
12.	M	65
13.	P.S	40
14.	R.N	40
15.	S.N.D.	40
16.	T.W	35
17.	V.N.C.	30
18.	W.S	50
19.	W.R	45
20.	Y.N.	20
21.	Y.N.	40

**Table 4.3; the Data of Posttest in Experiment Group (Variable X)**

No.	Name of Students	Score
1.	A.P	65
2.	A	80
3.	B.P	80
4.	D.L	75
5.	D.R.S	80
6.	D.P.S	85
7.	E.Y	80
8.	E.N	85
9.	F.E.R	85
10.	F	80
11.	L.S	80
12.	M.S.P	80
13.	M	80
14.	N.T.M	65
15.	N.W	70

16.	P.T	80
17.	R.D.J	80
18.	S	80
19.	S	80
20.	S	85
21.	U.Y	65
21.	W.D.A	85
23	Y.M	65



**Table 4.4; the Data of Posttest in Control Group (Variable y)**

No.	Name of Students	Score
1.	A.S	20
2.	A	50
3.	B.S	45
4.	D.S	70
5.	D.M	60
6.	E.S	65
7.	E.N	60
8.	F.S.U	25
9.	J	80
10.	K	50
11.	M.D.C	55
12.	M	85
13.	P.S	85
14.	R.N	75
15.	S.N.D.	85
16.	T.W	45
17.	V.N.C.	60
18.	W.S	50
19.	W.R	40
20.	Y.N.	65
21.	Y.N.	55

### **B. Data Analysis**

The data have been collected variables were tested by “t test” comparison formula, which was to find out where there a significant difference between the two variables are required, first was to calculate the mean, standard deviations, and standard error from each of the data (variables). The data then should fulfill several assumptions before it used for testing hypothesis.

## 1. Assumption Test

### a. Normality

Normality test was conducted to know whether the data distribution was normal distribution or not. For this test, it would be proposed the hypothesis as follow:

$H_0$  = the data was not normal distribution

$H_a$  = the data was normal distribution.

**Table 4.5; Normality of Data and Calculations of the Students Reading Comprehension That Taught by Group Work Technique (Variable X)**

X	F	f.x	x <sup>2</sup>	f. x <sup>2</sup>
85	5	425	7225	36125
80	12	960	6400	76800
75	1	75	5625	5625
70	1	70	4900	4900
65	4	260	4225	16900
<b>TOTAL</b>	<b>ΣF 23</b>	<b>ΣFX 1790</b>	<b>ΣX<sup>2</sup> 28375</b>	<b>ΣF.X<sup>2</sup> 140350</b>

$$\begin{aligned}
 M_x &= \frac{\sum fx}{N} \\
 &= \frac{1790}{23} \\
 &= 77,8
 \end{aligned}$$

$$SD_x = \sqrt{\frac{\sum fx^2}{n} - \left(\frac{\sum fx}{n}\right)^2}$$

$$\begin{aligned}
&= \sqrt{\frac{140350}{23} - \left(\frac{1790}{23}\right)^2} \\
&= \sqrt{6102,1 (77,8)^2} \\
&= \sqrt{6102,1 - 6052,84} \\
&= \sqrt{49.26} \\
&= 7, 01854686
\end{aligned}$$

**Table 4.6; Normality of Data and Calculation of the Students Reading Comprehension Taught by Group Work Technique (variable x) With the Kolmogorov-Smirnov Formula.**

X	F	Fkb	f/n	fkbn	Z	p≤z	A <sub>2</sub>	A <sub>1</sub>
1	2	3	4	5	6	7	8	9
85	5	23	0,21	1	1,025	0,8461	0,153	0,057
80	12	18	0,52	0,78	0,313	0,6217	0,158	0,082
75	1	6	0,04	0,26	-0,398	0,3483	-0,088	0,128
70	1	5	0,04	0,21	-1,111	0,1335	0,076	-0,036
65	4	4	0,17	0,17	-1,823	0,0344	0,135	0,035

$D_{(0,05,23)}$  from table 1,36

$$D_{(0,05,23)} = 1,36/\sqrt{n} = 1,36/\sqrt{23} = 0, 2835814671170608 (0,283)$$

Ho was accepted if  $a_1 \max \leq D_{\text{table}}$  was 0,283

Ha was rejected if  $a_1 \max > D_{\text{table}}$  was 0,283



Because the maximum count value  $a_1$  was 0,128 where the figure was smaller than the table, so the decision was to accept  $H_0$ , which meant the data was normality distributed.

**Table 4.7; Normality of Data and Calculation of the Average Standard Deviation of the Students Reading Comprehension That who Are Not Taught By Group Work Technique (Variable Y)**

Y	F	f.y	y <sup>2</sup>	f. y <sup>2</sup>
85	3	255	7225	21675
80	1	80	6400	12800
75	1	75	5625	11250
70	1	70	4900	9800
65	2	130	4225	8450
60	3	180	3600	21600
55	2	110	3025	6050
50	3	150	2500	7500
45	2	90	2025	4050
40	1	40	1600	1600
25	1	25	625	625
20	1	40	400	800
<b>TOTAL</b>	<b>Σf 21</b>	<b>Σfy 1245</b>	<b>Σ y<sup>2</sup>42150</b>	<b>Σ f. y<sup>2</sup>106200</b>

$$\begin{aligned}
 My &= \frac{\sum fy}{n} \\
 &= \frac{1245}{21}
 \end{aligned}$$

$$\begin{aligned}
 &= 59,2 \\
 SDx &= \sqrt{\frac{\sum fy^2}{n} - \left(\frac{\sum fy}{n}\right)^2} \\
 &= \sqrt{\frac{106200}{21} - \left(\frac{1245}{21}\right)^2} \\
 &= \sqrt{5057,14 - (59,2)^2} \\
 &= \sqrt{3921,4 - 3504,64} \\
 &= \sqrt{416,7} \\
 &= 20,4147006
 \end{aligned}$$

**Table 4.8; Normality of Data and Calculation of Student Reading Comprehension That Who Are Not Taught by Group Work Technique (variable y) With Kolmogorov- Smirnov**

**Formula.**

X	F	Fkb	f/n	fkb/n	Z	p≤z	A <sub>2</sub>	A <sub>1</sub>
1	2	3	4	5	6	7	8	9
85	3	21	0,14	1	1,263	0,8962	0,103	0,037
80	1	18	0,04	0,85	1,018	0,8438	0,006	0,034
75	1	17	0,04	0,80	0,773	0,7881	0,011	0,029
70	1	16	0,04	0,76	0,529	0,7794	-0,019	0,059
65	2	14	0,09	0,66	0,284	0,6103	-0,040	0,13
60	3	11	0,14	0,52	0,039	0,512	0,008	0,132
55	2	9	0,09	0,42	-0,205	0,4207	-0,000	0,09
50	3	6	0,14	0,28	-0,450	0,3264	-0,046	0,186
45	2	4	0,09	0,19	-0,695	0,2451	-0,055	0,145
40	1	3	0,04	0,14	-0,940	0,1736	-0,033	0,073
25	1	2	0,04	0,09	-1,675	0,0475	0,042	-0,002
20	1	1	0,04	0,04	-1,920	0,0274	0,012	0,028

This study, the research used Kolmogorov- Smirnov resulted:

D<sub>(0,05,18)</sub> from table 1,36

$$D_{(0,05,18)} = 1,36/\sqrt{n} = 1,36/\sqrt{21} = 0,29677633 (0,297)$$

Ho was accepted if  $a_1 \max \leq D_{\text{table}}$  was 0,297

Ha was rejected if  $a_1 \max > D_{\text{table}}$  was 0,297

Because the maximum count value  $a_1$  was 0,186 where the figure was smaller than the table, so the decision was to accept Ho, which meant the data was normality distributed.

#### b. Homogeneity

$$F (\max) = \frac{\text{Var max}}{\text{Var min}}$$

##### a. Homogeneity in Experiment Class

##### 1. Made frequency distribution table.

**Table 4.9; The homogeneity Test Before Using Group Work Technique (Pretest)**

X	F	Fx	x <sup>2</sup>	fx <sup>2</sup>
65	1	65	4225	4225
55	1	55	3025	3025
50	2	100	2500	5000
45	2	90	2025	4050
40	2	80	1600	3200
35	3	105	1225	3675
30	3	90	900	2700
25	5	125	625	3125
20	2	40	400	800
15	1	15	225	225
10	1	10	100	100
<b>Total</b>	<b>Σf23</b>	<b>Σfx 775</b>	<b>-</b>	<b>Σfx<sup>2</sup>30125</b>

**Table 4.10; The Homogeneity Test After Using Group Work Technique (Posttest)**

<b>X</b>	<b>F</b>	<b>Fy</b>	<b>y<sup>2</sup></b>	<b>fy<sup>2</sup></b>
85	5	425	7225	36125
80	12	960	6400	76800
75	1	75	5625	5625
70	1	70	4900	4900
65	4	260	4225	16900
<b>Total</b>	<b>Σf23</b>	<b>Σfy1790</b>	<b>-</b>	<b>Σfy<sup>2</sup>140350</b>

2) Determining SDx

$$SD_x = \sqrt{\frac{\sum fx^2}{n} - \left(\frac{\sum fx}{n}\right)^2} = \sqrt{\frac{30125}{23} - \frac{775}{23}}$$

$$= \sqrt{1309,78261 - 33,6956522}$$

$$= \sqrt{1276,08696} = 35,7223594$$

$$SD_y = \sqrt{\frac{\sum fy^2}{n} - \left(\frac{\sum fy}{n}\right)^2} = \sqrt{\frac{140350}{23} - \frac{1790}{23}}$$

$$= \sqrt{6102,17391 - 77,826087}$$

$$= \sqrt{6024,34782} = 77,6166723$$

3) Use Harley's Formula

$$F(\max) = \frac{Var \max}{Var \min} = \frac{35,7223594^2}{77,6166723^2}$$

$$= \frac{1276,08696}{6024,34782} = 0,21182159$$

4) Determining Hypothesis

Based on explanation above the researcher determined the hypothesis as follow:

Ho: the data was homogeneity

Ha: the data was not homogeneity

Look at the F (max) table with the standard significant 1% with  $db = (n-1;k) = (23-1;2) = (22;2)$ ; so, it could be obtained 3,64.

Criteria:

Reject Ha if F (max) value > F (max) table

Accepted Ho if F (max) value < F (max) table

F (max) value= 0, 21

F (max) table= 3, 64

So the conclusion was accepted Ho. It means the data of experiment class was homogeny.

b. Homogeneity in Control Class

1. Made frequency distribution table.

**Table 4.11; The Homogeneity Test Before Using Group Work Technique (Pretest)**

<b>X</b>	<b>F</b>	<b>Fx</b>	<b>x<sup>2</sup></b>	<b>fx<sup>2</sup></b>
65	1	65	4225	4225
50	2	100	2500	5000

45	1	45	2025	2025
40	4	160	1600	6400
35	5	175	1225	6125
30	4	120	900	3600
25	2	50	625	1600
20	2	40	400	800
<b>Total</b>	$\Sigma f_1$	$\Sigma fx$ 755	-	$\Sigma fx^2$ 29775

**Table 4.12; The Homogeneity Test Not Using Group Work Technique (Posttest)**

X	F	Fx	x <sup>2</sup>	fx <sup>2</sup>
85	3	255	7225	21675
80	1	80	6400	12800
75	1	75	5625	11250
70	1	70	4900	9800
65	2	130	4225	8450
60	3	180	3600	21600
55	2	110	3025	6050
50	3	150	2500	7500
45	2	90	2025	4050
40	1	40	1600	1600
25	1	25	625	625
20	1	40	400	800
<b>TOTAL</b>	$\Sigma f_1$	$\Sigma fy$ 1245	-	$\Sigma f \cdot y^2$ 106200

2) Determining SDx

$$SD_x = \sqrt{\frac{\Sigma fx^2}{n} - \left(\frac{\Sigma fx}{n}\right)^2} = \sqrt{\frac{29775}{21} - \left(\frac{755}{21}\right)^2}$$

$$= \sqrt{1417,85714 - 35,952381}$$

$$= \sqrt{1381,90476} = 37,1739796$$

$$\begin{aligned}
 SD_y &= \sqrt{\frac{\sum fy^2}{n} - \left(\frac{\sum fy}{n}\right)^2} = \sqrt{\frac{106200}{21} - \frac{1245}{21}} \\
 &= \sqrt{5057,14286 - 59,2857143} \\
 &= \sqrt{4997,85715} = 70,6955243
 \end{aligned}$$

3) Use Harley's Formula

$$\begin{aligned}
 F(\max) &= \frac{V_{\max}}{V_{\min}} \\
 &= \frac{37,1739796^2}{70,6955243^2} \\
 &= \frac{1381,90476}{4997,85716} = 0,27649945
 \end{aligned}$$

4) Determining Hypothesis

Based on explanation above the researcher determines the hypothesis as follow:

Ho: the data was homogeneity

Ha: the data was not homogeneity

Look at the F (max) table with the standard significant 1% with db= (n-1;k)= (21-1;2)=(20:2); so, it could be obtained 3,80.

Criteria:

Reject Ha if F (max) value > F (max) table

Accepted  $H_0$  if  $F(\text{max})$  value  $<$   $F(\text{max})$  table

$F(\text{max})$  value = 0,27

$F(\text{max})$  table = 3,80

So the conclusion was accepted  $H_0$ . It means the data of control class was homogeny.



### **C. T- test**

As the step to calculate the “t” test formula, the first step was calculated the reading comprehension score. In this table, the researcher processed the students’



ability that taught by group work technique. From 23 students with different score, it was classified based on score variance (X), from 65-85. Then the researcher calculated the frequency of score (f) and the midpoint (x') of students reading comprehension that taught by group work technique.

**Table 4.13; The Computation of Students' Reading Comprehension Taught By Group Work Technique.**

Score (x)	F	x'	f.x'	(x') <sup>2</sup>	f.(x') <sup>2</sup>
81 - 85	5	+1	5	1	5
76 - 80	12	0	0	0	0
71 - 75	1	-1	-1	1	1
66 - 70	1	-2	-2	2	2
61 - 65	4	-3	-12	3	12
<b>Total (Σ)</b>	23	-	-10	7	20

Next table was about students' reading comprehension that was not taught by group work technique. This table the researcher classified the variance score (Y) from 20 until 85, calculated the frequency (f) and midpoint (y) of students' reading comprehension that was not taught by group work technique.

**Table 4.14; The Computation of Students' Reading Comprehension That Was Not Taught By Group Work Technique.**

Score (y)	F	y'	f.y'	y' <sup>2</sup>	f.y' <sup>2</sup>
81-85	3	+5	15	25	75
76-80	1	+4	4	16	16
71-75	1	+3	3	9	9
66-70	1	+2	2	4	4
61-65	2	+1	2	1	2
56-60	3	0	0	0	0
51-55	2	-1	-2	1	2
46-50	3	-2	-6	4	12
41-45	2	-3	-6	9	18
36-40	1	-4	-4	16	16
21-25	1	-5	-5	25	25
16-20	1	-6	-6	36	36
<b>Total (Σ)</b>	21	-	-3	146	215

From both tables above, the researcher compute the mean score of students' reading comprehension that taught by group work technique (X) and those were not taught by group work technique (Y).

$$\begin{aligned}
 M_x &= M' + i \left( \frac{\sum f x'}{N} \right)^2 \\
 &= 78 + 4 \left[ \frac{-10}{23} \right]^2 \\
 &= 78 + (-1,7391304)^2 \\
 &= 78 + 3,022457455 \\
 &= 78,3
 \end{aligned}$$

$$\begin{aligned}
 M_y &= M' + i \left( \frac{\sum f y'}{N} \right)^2 \\
 &= 60 + 11 \left[ \frac{-3}{21} \right]^2 \\
 &= 60 + (-1,5714281)^2 \\
 &= 60 + 2,46938627
 \end{aligned}$$

$$= 62,4$$

$$SD_x = i \sqrt{\frac{\sum fx'^2}{n_1} - \left(\frac{\sum fx'}{n_1}\right)^2}$$

$$= 4 \sqrt{\frac{20}{23} - \left[\frac{-10^2}{23}\right]^2}$$

$$= 4 \sqrt{0,86956522 - (-0,4347826)^2}$$

$$= 4 \sqrt{0,86956522 - 0,18903591}$$

$$= 4 \sqrt{0,68052931}$$

$$= 4 \cdot 0,824942$$

$$= 3,299768$$

$$SD_y = i \sqrt{\frac{\sum fy'^2}{n_2} - \left(\frac{\sum fy'}{Nn_2}\right)^2}$$

$$= 11 \sqrt{\frac{215}{21} - \left[\frac{-3^2}{21}\right]^2}$$

$$= 11 \sqrt{10,2380952 - (-0,1428571)^2}$$

$$= 11 \sqrt{10,2380952 - 0,02040815}$$

$$= 11 \sqrt{10,2176871}$$

$$= 11 \cdot 3,19651171$$

$$= 35,1616288$$

$$SE_{mx} = \frac{SD_x}{\sqrt{n_1 - 1}}$$

$$= \frac{3,299768}{\sqrt{23 - 1}}$$

$$= \frac{3,299768}{\sqrt{22}}$$

$$= \frac{3,299768}{4,69041576} = 0,7035129$$

$$SE_{My} = \frac{SDy}{\sqrt{n-1}}$$

$$= \frac{35,1616288}{\sqrt{21-1}}$$

$$= \frac{35,1616288}{\sqrt{20}}$$

$$= \frac{35,1616288}{4,47213595} = 7,8623792$$

$$SE_{m_x - m_y} = \sqrt{SE_{m_x}^2 + SE_{m_y}^2}$$

$$= \sqrt{0,7035129^2 + 7,8623792^2}$$

$$= \sqrt{0,4949304 + 61,8170067}$$

$$= \sqrt{62,3119371} = 7,89379105$$

From the several computations above, the last part was computed  $t_0$  test. It was used to know  $t_0$  score that was used to compare with  $t_0$  answer statement of the problem and hypothesis.

The computation of  $t_0$  score:

$$t_0 = \frac{M_x - M_y}{SE_{m_x - m_y}}$$

$$= \frac{77,826087 - 59,2857143}{7,89379105}$$

$$= \frac{18,5403727}{7,1902782}$$

$$= 2,57853343$$

#### D. Discussion

Discussion was used to answer the hypothesis that Group Work technique effective to teach reading comprehension for the tenth grade of SMKN Tulakan Pacitan. So, the next step was Hypothesis test to the data (variable x and y) with interpretation.

Interpretation was consulted between  $t_t$  (t-table) and  $t_0$  (t-observation). If  $t_0$  higher than  $t_t$  ( $t_0 > t_t$ ), the result  $H_0$  was rejected and  $H_a$  was accepted. If  $t_0$  smaller than  $t_t$  ( $t_0 < t_t$ ) the result  $H_0$  was accepted and  $H_a$  was rejected.

##### 1. Hypothesis nol ( $H_0$ )

$H_0$  = The Group Work technique was not effective to teach reading comprehension for the tenth grade of SMKN Tulakan Pacitan in academic year 2015/ 2016.

##### 2. Hypothesis alternative ( $H_a$ )

$H_a$  = The Group Work technique was effective to teach reading comprehension for the tenth grade of SMKN Tulakan Pacitan in academic year 2015/ 2016.

To determine the  $t_0$  was by checked db and consulted with the  $t_t$  score:

$$D_b = (N_1 + N_2) - 2$$

$$= (23 + 21) - 2$$

$$= 44-2$$

$$=42$$

From the db score, the researcher could know that in 5% significance level  $t_0 = 2,578$  and  $t_t = 2,02$ , so  $t_0 \geq t_t$ , whereas 1% significant level  $t_0 = 2,578$  and  $t_t = 2,71$ , so  $t_0 < t_t$ . Based on the result, it could be concluded that  $t_0 < t_t$ . It means that the Group Work technique was not effective to teach reading comprehension for tenth grade of SMKN Tulakan Pacitan in academic year 2015/ 2016.

Since the result of this research was not effective, it was needed to analyze to know the reasons why the technique was not effective. In addition, the time to applied Group Work technique was limited because the researcher had 4 meeting, 2 meeting were pretest and posttest, and then 2 meeting were applied of Group Work technique. The other reasons were the students needed to improve their vocabularies, because it was an important part to take easy in applying Group Work technique to teach reading comprehension.

## CHAPTER V

### CLOSING

#### A. Conclusion

Based on the result data analysis and discussion, there are some conclusion, they are:

The students' reading skill achievement who are taught using Group Work technique and not taught using Group Work technique for XA and XB to tenth grade of SMKN Tulakan Pacitan are;

- a. For the XA class, the average from the pretest was 33, 60.
- b. For the XB class, the average from the pretest was 36, 90.

The students' reading skill achievement after the implementation Group Work technique for tenth grade of SMKN Tulakan Pacitan, for the experiment class, the average from the posttest was 77,826. The result of data analysis above, the researcher concludes the students who are taught using Group Work technique will achieve a better score but not significant at SMKN Tulakan Pacitan. In other word, the Group Work technique is not effective for XA and XB to tenth grade of SMKN Tulakan Pacitan.

Based on the data descriptive above, it is know that there two reasons, internal and external reason.

1. Internal reasons, for examples;

- a) The students poor in vocabularies.
- b) The students unmotivate and uninterest with reading.

2. External reason, for examples;

- a) The limit time of the research. So, there's no long time to teach reading comprehension with Group Work technique.

### **B. Recommendation**

Based on the research above, some suggestions are propose:

1. The English teacher should make the students to interesting with Group Work technique apply in teaching reading comprehension.
2. The English teacher should help the students in enriching vocabularies by give more exercise on them.
3. This research can be use for the other researchers as the basis to conduct a further research in teaching reading comprehension by using Group Work technique.

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