



**THE EFFECT OF USING GROUP WORKING  
TECHNIQUE TO STUDENTS' DESCRIPTIVE  
WRITING ABILITY AT GRADE VIII SMP  
NEGERI 1 LEMBAH SORIK MARAPI**

**A THESIS**

*Submitted to State Institute for Islamic Studies (IAIN)  
Padangsidempuan as a Partial Fulfillment of Requirement for the  
Graduate Degree of Islamic Educational Scholar (S.Pd.I) in English*

**Written by:**

**ANNASARI RANGKUTI**

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TARBIYAH AND TEACHER TRAINING FACULTY  
STATE INSTITUTE FOR ISLAMIC STUDIES  
PADANGSIDIMPUAN**

**2015**



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## LETTER OF AGREEMENT

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To :

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Item : 7 (Seven) Exemplars

in –

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Assalamu'alaikumWr. Wb.

After reading, studying and giving advice for necessary revision on thesis belongs to ANNASARI RANGKUTI, entitled "**The Effect of Using Group Working Technique to Students' Descriptive Writing Ability at Grade VIII SMP N 1 Lembah Sorik Marapi**", we approved that the thesis has been acceptable to complete the requirement to fulfill for the degree of Graduate of Islamic Education (S.Pd.I) in English.

Therefore, we hope that the thesis will soon be examined in front of the Thesis Examiner Team of E. Dept of Tarbiyah and Teacher Training Faculty IAIN Padangsidempuan. Thank you.


Wassalamu'alaikumWr. Wb.

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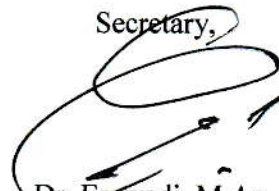
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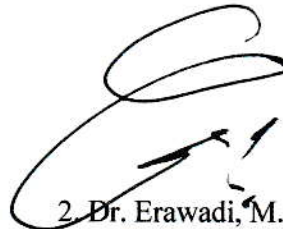


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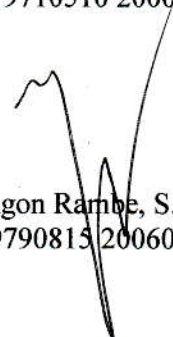
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TECHNIQUE TO STUDENTS' DESCRIPTIVE  
WRITING ABILITY AT GRADE VIII SMP NEGERI 1  
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## ABSTRACT

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**the little of the thesis** : **The Effect of Using Group Working Technique To Students' Descriptive Writing Ability at Grade VIII SMP N 1 Lembah Sorik Marapi**

This research purpose to the effect of using group working technique to students' descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi. The problems of the research are the students' have low vocabularies, cannot string up the word become sentences, a little time it is 4 hours/week, students at the top of the ladder to finish the descriptive writing, do not interest about English lesson, have principle and bugbear that English is difficult. The aim of this research was to find out the effect of group working technique to students' descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi

This research applied experimental research. The population of this research is the VIII grade of SMP N 1 Lembah Sorik Marapi. The total of population are five classes. Then, the sample of the research was 2 classes, experiment class (VIII-5) and control class (VIII-4). It was taken after conducting normality and homogeneity test. To collect the data researcher used test for measuring students' descriptive writing ability. To analysis the data, researcher used t-test.

Based on the result of the research, researcher showed the description of the data was found that, the mean score of experiment and control class in pre test ( $37,42 < 40,6$ ) the mean score of experimental class in post test higher than control class ( $74,31 > 54,5$ ). and the score of  $t_0$  was bigger than  $t_1$  ( $22,01 > 1,67$ ). It means that the hypothesis was accepted. It was concluded that there was the effect of group working technique to students' descriptive writing ability at SMP N 1 Lembah Sorik Marapi. Finally, the researcher suggested using group work technique was effective to improve students writing skill.

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3. Mrs. Rayendriani Fahmei Lubis, M.Ag, is as the Leader of English Department.
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May Allah, The almighty bless them all, Amin.

Padangsidempuan, 28 September 2015

Declaration maker



**Annasari Rangkuti**

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## CHAPTER 1

### INTRODUCTION

#### **A. Background of the Problem**

Writing is one the important skill in language learning. Writing is a method of representing language in visual or tactile form. Writing systems use sets of symbols to represent the sounds of speech, and may also have symbols for such things as punctuation and numerals.

Writing helps reader refine ideas when given others feedback. Writing in all its varied forms and purposes, is a complex process. It calls upon to bring left and right brain together to shape experience and feeling into something another person can read and understand. That need, to feel understood, to know that what one thinks or feels matters is universal. For example, students at grade 1 elementary school when they are writing. The teacher will give others feedback the written to be right.

Writing activity in knowledge will possible to be active and not to be receiver information. Within teaching and learning process the role of writing is very important because writing acts as instrument to express the content of the lesson and showed someone's ideas. Writing closely related in reading where both using technique and intellect. Reading not to be exist if none writing conversely. Imagination is more important than knowledge. Without imagination, we cannot active to search new knowledge.

Actually, method that used in learning descriptive writing is not success maximally. The method did not have good effect to students' descriptive writing comprehension. Also, the problem can be known from students' score. One of teachers of SMP Negeri 1 Lembah Sorik Marapi said that students still get low score with 70; meanwhile the standard of English competency in this school is 75 especially in descriptive writing ability. They are not able to write descriptive writing or descriptive text correctly and well.

In reality, teaching writing in SMP N Lembah Sorik Marapi less effective. When they were studying about text, the teachers just write the text, and then order the students to write the text one by one. After that, students are ordered to find the difficult words from the text and then translate the words. The last, students do the exercise.

Based on private interview with Mrs. Sahara Ritonga, S.Pd. said that there are still many students cannot write descriptive writing correctly and well. They are not able to arrange sentences become descriptive writing or descriptive text. The core that the students cannot generate their idea to be descriptive writing.

Mrs. Sahara Ritonga said that the other problems of the students to write descriptive writing are low of vocabularies, cannot string up the words become sentences, a little time it is 4 hours/week, students at the top of the ladder to finish the descriptive writing, do not too interest about English lesson, have principle and bugbear that English is difficult.

There are many techniques in teaching writing ability especially in writing descriptive text, and researcher chosen group working technique to effect the students' writing descriptive writing ability. The researcher choose the technique word chain because it more interest for students all at once alleviate boredom. Other reason, students start thinking to search new vocabularies to add students knowledge in English.

So, appropriate learning method in teaching learning process produces maximum learning outcomes. From the several learning method, group working technique is one of some methods which have effect on the students' descriptive writing ability. The best reasons of the researcher to choose the method are explained in the following paragraphs.

Based on the explanation above, the researcher believe the importance of conducting an experimental research of which purpose is to investigate **“The Effect of Using Group Working Technique to Students’ Descriptive Writing Ability at Grade VIII SMP N 1 Lembah Sorik Marapi.** This research will compare the difference of students’ descriptive writing by using group working technique with the conventional way of teachers in teaching descriptive writing.

## **B. Identification of the Problem**

In fact, the students at grade VIII SMP Negeri 1 Lembah Sorik Marapi still have problems: 1) method that used in learning descriptive writing ability is not success maximally, 2) students have low score on descriptive writing ability, and

3) students didn't understand vocabularies of the text. There are some learning methods can affect their descriptive writing ability, but in this research, researcher concerns with applying group working technique method to effect students' descriptive writing ability.

### **C. Limitation of the Problem**

The coverage of the variables stated above is so large in the matter of materials, space and time that it is difficult to explore alone. Due to the limitation of the researcher in the aspect of ability, time and finance, this research must be limited. Based on the identification of the problem above, this research is limited to investigate the causal-effect relationship between group working technique on descriptive writing ability of explanation text, second semester 2014/2015 academic year grade VIII SMP N 1 Lembah Sorik Marapi.

### **D. Formulation of the Problem**

Based on the background of the problem above, so the formulation of the problem is "Is there any significant effect of using group working technique to students' descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi?"

### **E. Purposes of the Research**

The purposes of the research was: 1) To describe pre-test and post test of the research, 2) To examine the significant effect of using group working technique to students' descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi".

## **F. Significances of the Research**

The significances of the research are:

1. To give information to English teacher about teaching descriptive text in term of using group working.
2. For English teachers as a tool to compare and to improve the science especially about using group working and descriptive writing ability.
3. For enriching readers the scientific in writing, especially English students at IAIN Padangsidmpuan.
4. For giving readers contribution to make good practice and result of speaking in the future.
5. As one of references for next researchers in the same problem and for the other writers in conducting further researcher in the same topic.

## **G. Definition of the Operational Variables**

### **1. Student's Descriptive Writing Ability**

#### **a. Student:**

Student is person who is studying at a college of university, person studying at secondary school, any person interested in a particular subject.<sup>1</sup>

According to Rama Yulis in the book *Ilmu Pendidikan Islam*, that the students is number of society that try develop his/her throughout education

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<sup>1</sup> A. S. Hornby, *Oxford Advanced Learner's Dictionary*, (New York: Oxford University Press, 2000), p. 441.

level process and kind of certain education.<sup>2</sup> Then, according to Abudin Nata states that students is all of people who learn not only in formal education institution but also informal education situation.<sup>3</sup>

### **b. Descriptive Writing**

Descriptive writing or descriptive text is a piece of writing that lists the characteristics of a person, place or thing. It describes living and non living things such as animals, towns, buildings, and so on.<sup>4</sup> Previous writing lessons dealt with paragraph development by time sequence (such as first, then, next, afterwards), that is, listing or describing events in the order in which they occurred.

Another important aid to good writing was also mentioned: the topic sentence. It states the subject or theme of the paragraph. All other sentences in the paragraph support or expand the statement contained in the topic sentence.<sup>5</sup>

### **c. Students' Descriptive Writing Ability**

Ability is a level of skill or intelligence.<sup>6</sup> It is a potential or capacity and power to do something physical or mental, it's also defenited as special nature power to do something well or telent. It means that we do

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<sup>2</sup> Rama Yulis, *Ilmu Pendidikan Islam*. (Jakarta:Kalam Mulia, 2008), p.27.

<sup>3</sup> Abudin Nata, *Pendidikan dalam Perspektif Hadis*, (Jakarta:UIN Jakarta Press, 2005), p. 249.

<sup>4</sup> Linawati Setiadi, dkk, *Seri Pendalaman Materi Bahasa Inggris SMA and MA*, (Jakarta: Esis, 2008), p. 49.

<sup>5</sup> George E. Wishon and Julia M. Burks, *Let's Write English*, (New York: American Book Company, 1980), p. 128.

<sup>6</sup> A. S. Hornby, *Op.cit.*, p. 2.

something consist of physical or mental achievement and can be determined as a skills and expertness or talent. So, the ability is the power to do something physical or mental.

## **2. Group working**

Grouping or classifying is one of learning strategy, it is relate or classify words according to attributes. Example: ordering, categorizing, and labeling material.<sup>7</sup> Group working is a techniqe in teaching where is the students in one class is looked in one unity (group) or devided to small groups (groups sub). Group working can be done if:<sup>8</sup>

- a. Less of facilities in the class. Example the book is not enough of students in the class, by using grouping work every group can be got a book.
- b. The different students' ability
- c. The interest between individual is different

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<sup>7</sup> Anna Uhl Chamot, dkk, *The Learning Strategies Handbook*, (Wesley: Longman, Inc, 1999), p. 17.

<sup>8</sup> Ahmad Sabri, *Strategi Belajar Mengajar dan Metode Teaching*, (Jakarta: PT. Ciputat Press, 2005), p. 60.

## CHAPTER II

### THEORETICAL DESCRIPTION

#### A. Literature Review

##### 1. Group Working Technique

###### a. Background of Group Working Technique

Active student is a student who work hard to take greater responsibility in their own learning process. They take a more dynamic role in deciding what, how they should do and how they will do it Glasglow in Winastwan Gora and Sunarto.<sup>1</sup> One of the active learning models that can increase activity, interest and students' understanding of the material learning in a learning process is the application of group working.

Group working is teaching manner in the classroom where students are viewed as a group or divided into several groups. Each group works together in solving problems, or carrying out certain duties and trying to achieve teaching objectives that have also been determined by teachers.<sup>2</sup> So, learning group working strategy is a teaching strategy that teaches the students to study together with their group to accomplish shared goals and to solve the problem through working together.

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<sup>1</sup> Winastwan Gora & Sunarto, *Pakematik Srtategi Pembelajaran Inovatif Berbasis TIK* (Jakarta: Alex Media Komputindo, 2010), p.10.

<sup>2</sup> Nana Sudjana, *Cara Belajar Siswa Aktif dalam Proses Belajar Mengajar* (Bandung: Sinar Baru Algensindo 1995), p.15.



## b. Defenition and Concept of Group Working

According to Killen in Martinis Bansu I Yamin and Ansari group working is a learning strategy that asks the students working together in a group rather than explain in classical. Learning model “Active Learning” method group an instruction model that was developed from the concept or principle of the theory of the brain, constructivist learning theory, and the collaborative theory or cooperative learning. This learning model emphasize on activities and active participation of students in term of intellectual and emotional optimally through learning activities within team and between team teaching to gain more meaningful mastery or understanding material.<sup>3</sup>

Description gives sense impressions the feel, sound, taste, smell, look of things. Emotions may be described too. Feelings such as happiness, fear, loneliness, gloom, and joy. Description helps the reader, through his/her imagination, to visualize a scene or a person, or to understand a sensation or an emotion.<sup>4</sup>

Based on the description above, it can be concluded that group work is one of the types of active learning strategy where students are divided into some group and work together to perform tasks that have been previously designed by the teacher, with the provisions of each member of the group has a notch and independent of personal responsibility.

## c. Principle of Group Working

There are some principles learning that can support the growth of active students learning which are:

### 1. Attention and Motivation

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<sup>3</sup> Martinis Yasmin & Bansu I Ansari, *Taktik Mengembangkan Kemampuan Individual Siswa* (Jakarta: Gaung Persada Press, 2009), p.71.

<sup>4</sup> Wishon E. George, *Let's Write English*, (New York: Litton Educational Publishing, 1980), p. 128.

From the study of the theory of learn about information processing revealed that in the absence of attention, not possible to learn. Attention the lesson the students will arise if appropriate teaching material needs. While the motivation to have a role in energize and direct the activities of the work of someone.

## 2. Direct Involvement or experience

In students learning not just observe directly but he should live, directly involved in the action, and shall responsibility for the results.

## 3. Repetition

Learning is to train the force that exist in humans comprising on the gaze, perceiving, remembering, imagining, feeling, thinking, and so on. With repetition of the conduct day a day will evolve and be perfect.

## 4. Feedback and Reinforcement

Source of reinforcement learning for satisfying needs from outside and in him. Reinforcement learning that comes from the outside as the value, recognition of students achievement, students opinion approval, reward, gift, and others, is a way to strengthen the students' responses. While the

amplifier from within him could happen if the responses done really satisfactory and in accordance with their needs.<sup>5</sup>

d. Procedure of Group Working

Application Procedures of Group working in Learning according to H. Douglas Brown by using material lists of changes from present or future job in page 333- 334 as follow:

Teaching- Today	Sales-Today	Health Care-Today
attitude toward teacher A information explosion B union activity more job security better benefits C use of textbooks larger class size computers as teaching tools computers for record keeping D competition for jobs greater student maturity higher diplomas	computerized inventory D customer's bad attitude A distance from owners pressure meeting people incentive pay consumer action need to know more about product B more responsibility more advancement changes fewer personal time clocks students increase knowledge better benefits C	malpractice suits less respect A hours pay educational demands pressure information increase B consulting with others competition for clients advertising computerized business D computerized diagnosis less paygreater benefits C

Steps used is namely; form a small group (three or five people). Use the following guidelines for your group discussion.

1. Take turns reading your lists of changes in your field to each other.
2. Compare your classmate's lists to yours, looking for similarities and differences.
  - a. mark the changes on your list that are similar.
  - b. add to your list new ideas of changes that apply to your field.
3. As a group, select three changes that applied to the field of group member. If you have time, you can discuss these three ideas.
4. Choose a reporter from your group to share your three changes with the rest of the class.<sup>6</sup>

<sup>5</sup> Dimayati & Mudjiono, *Belajar dan Pembelajaran* (Jakarta: Rineka Cipta 2006), p. 42.

## 2. Student Ability in Writing descriptive text

### a. Definition of Writing

Writing is largely a solitary act. It is formed in isolation. Writing depends primarily on the word writers choose and the form they give to their ideas.<sup>7</sup> In addition, Nunan Said that writing can be defined by a series of contrasts as:

- 1) It is both physical and a mental act. Writing is the mental work of inverting ideas, thinking about how to express them, and Organizing them into statements and paragraphs that will be clear to a reader.
- 2) Its Purpose is both to express and impress. Writer typically serve to masters: themselves and their own desire to express and idea of feelling and readers, also celled the audience, who need to have ideas expressed in certain ways.
- 3) It is both a process and product. The writer imagines, organizes, draft, edits, reads, and rereads. This process of writing is often cyclical and disorderly.

Next, according to Hump-Lyons, writing is a personal act in which writers take ideas or prompts and transform them into “self-initiated” topics.

According to Kathteen says that writing is an excellent means of monitoring

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<sup>6</sup> H. Douglas Brown, *Teaching by Principle*, ( USA: Prentice Hall 1994), p. 333-334

<sup>7</sup> Jane B Hughey, *Teaching ESL Cosition Principle and Techniques* ( New York: Newbury House Publisher, 1983, p. 4.

and improving your comprehension and retention, also an effective learning strategy.

So, writing is an activity to express ideas in writing form or the process of giving information by texts that involved in generating the letters, word and sentences. The main goals in writing activity are able to write ideas, information in a good logical order, expressing their thought clearly and improve that they have in mind so that the reader easier to know what that read.

#### b. Kinds of Writing

According to Michael the kinds of writing are:

1. *Expository or informative writing* to share knowledge and give information, direction, or ideas. Example, describing events or experience.
2. *Expressive/narrative writing* is a personal or imaginative expression in which the writer produces story or essay. This type of writing is often based on observations of people, objects, place and may include creative speculations and interpretation.
3. *Persuasive writing*, writer attempt to influence others and initiate action or change. This type of writing is often based on background information facts.<sup>8</sup>

Based on explanation above, the researcher concluded there are three types of writing: expository or informative, expressive/narrative writing, persuasive writing.

#### c. Evaluation of Writing

There are some criteria of evaluation of writing:

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<sup>8</sup> J. Michael O, Malley, *Authentic Assessment for English Language Learners* (USA: Addison-Wesley Publishing, 1996), p. 137.

1. Grammar

Errors of grammar or word order fairly frequent; occasional re-reading necessary for full comprehension.

2. Vocabulary

Uses wrong ideas or inappropriate words fairly frequently; expression of ideas may be limited because of inadequate vocabulary.

3. Mechanics

Errors in punctuation or spelling fairly frequent; occasional re-reading necessary for full comprehension.

4. Fluency

Occasional lack of consistency in choice of structures and vocabulary which does not, however, impair overall ease of communication.<sup>9</sup>

5. Form

Some lack of organization; re-reading required for clarification of ideas.

d. Definition of Descriptive Text

Description is used in all forms of writing to create a vivid impression of a person, place, object or event e.g. to described a special place and explain why it is special, to described the most important person in your life, or to

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<sup>9</sup> Arthur Hughes, *Testing for Language Teachers* ( UK: Cabridge University 2003) p. 101-102

describe the animals' habit in your report. In other words, description text is to describe a particular person, place or thing.

Descriptive writing is usually used to help a writer develop an aspect of their work, e.g. to create a particular mood, atmosphere or describe a place so that the reader can create vivid picture of characters, place, objects and more.<sup>10</sup>

e. Generic Structure of Description

Here generic structure of description text, consist to identification, and description, and will be explain as follow:

- a. Identification is identifies phenomenon to be described;
- b. Description is describes parts, qualities and characteristic.

f. Language Features of Description

Here language features of description text, and will be explain as follow;

- a. To engage reader's attention
- b. To create Characters
- c. Using simple present tense
- d. Focus on specific participants
- e. Using attribute and identifying processes

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<sup>10</sup> T. Mc, Kathleen, *Let's Write Text*, (New York: Collins Publisher, 1992).

- f. Frequent use of epithet (adjective or adjective phrase) and classifier in nominal groups
- g. Linking verbs
- h. To set a mood or create an atmosphere
- i. To bring writing to life
- j. Aims to show rather than tell the reader what something/someone is like
- k. Relies on precisely chosen vocabulary with carefully chosen adjectives and adverbs
- l. Is focused and concentrate only on the aspect that add something to the main purpose of the description;
- m. Sensory description-what is heard, seen, smelt, felt and tasted. Precise use of adjectives, similes, metaphors to create images/pictures in the mind e.g. “Their noses were met with the acrid smell of rotting flesh
- n. Strong development of the experience that ‘puts the reader there’ focuses on key detail, powerful verbs and precise nouns.

The researcher concludes that text descriptive text has its structure and language features as the draft of its text. To give more understanding about it, the researcher presents you the example as follow:



## IAIN Padangsidimpuan

IAIN is a state institute in Padangsidimpuan. I take my studying in this institute. There are four faculty in this institute in which I take one of them. The faculty are Syariah, Tarbiyah, Dakwah, Economy and Business

Identification

The students who enter this institute should follow the UMPTN in which must register through BRI to take the registration number. I am one of the students who passed the UMPTN in English Education Department at 2010. I hope I will make my future better than others as my parent hope by studying in this state institute, because all of the lecturers are professionals in giving the lesson.

Description

### B. Review of Related Finding

In this research, the writer was related findings to some researchers. The first, Khoirul Muttaqin “An Analysis on the students’ achievement in comprehending both of descriptive and recount text to the grade XI students’ of SMK Merpati Nusantara Siabu 2008/2009 Academic Year.”<sup>11</sup> Based on the research, he found that the comprehending both of descriptive and procedure text to the student are “enough”, it can be seen from the mean are 61 and 62,7.

The other, Ameliza “A Comparative between Contextual Teaching Learning and Discussion Method in Teaching Writing recount Text at IX Grade Students of

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<sup>11</sup>Khoirul Muttaqin, *An Analysis on the Students’ Achievement in Comprehending both of Descriptive and Recount Text to the Grade XI Students’ of SMK Merpati Nusantara Siabu 2008/2009 Academic Year* (Padangsidimpuan: UMTS, 2009), p. 26.

MTs. Muhammadiyah 22 Padangsidempuan in 2010/2011 Academic Year.<sup>12</sup> The result of teaching writing procedure text by using contextual teaching learning is better different result than discussion method. It is shown from the mean 29, 79 and 21, 10.

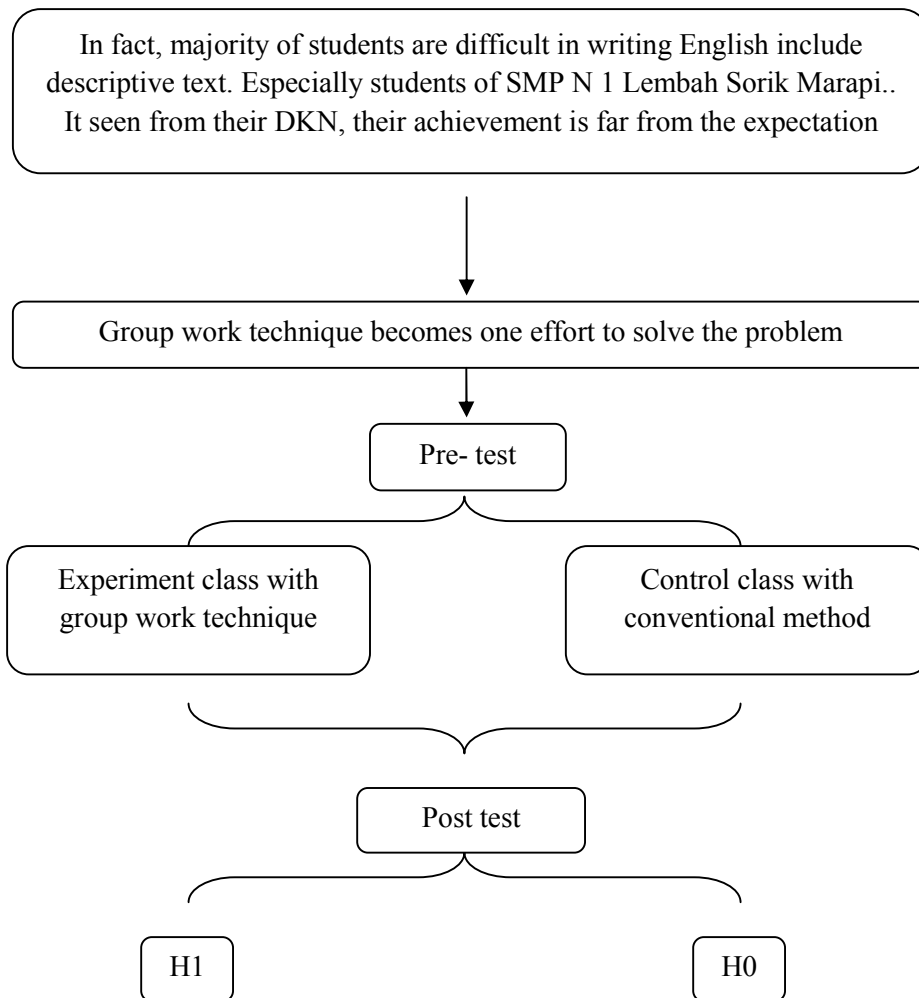
So that, from the researchers above, the researcher want to look for other information deeply, with the same material in writing recount text and Group Strategy. It is “The Effect of Using Group working Technique to Student’s Descriptive Writing Ability at Grade VIII SMP N 1 Lembah Sorik Marapi.

### **C. Conceptual Framework**

The successful of writing ability depends of many factors, there are about the subjects in reading, writing, listening and speaking. The students hoped that they can communicate through orally and written. In writing ability is the ability in expressing idea, through opinion and argumentation by writing, it consist of structure and grammar. The suitable strategy is very important to teach writing descriptive text. Group work technique used to teach writing ability. This technique can be use to teach writing ability of students. So, the effect of using group work technique on students’ descriptive writing ability can be seen as picture bellow:

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<sup>12</sup>Ameliza, *A Comparative between Contextual Teaching Learning and Discussion Method in Teaching Writing Recount Text at XI Grade Students of MTs Muhammadiyah 22 Padangsidempuan* (Padangsidempuan: UMTS, 2011), p. 62.



From the picture above, group work technique is a technique used by the teacher on writing descriptive text. In order the learning of writing descriptive the through group work technique to be easier, the teacher must be able to facilitate the students to learn effectively.

Based on description above, using group work technique be seen as suitable technique in teaching and learning of writing descriptive text and to develop of comprehending of students in writing. Group work technique give

maximum control for teacher to teach writing with large and small classes, to make students enjoy in writing subject and these strategy can stimulate motivation of the students to improve their writing ability.

#### **D. Hypothesis**

Hypothesis of the research is “there is significant effect of using group working technique to students’ descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi.

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. Time and Place of Research

This research was done at SMP N 1 Lembah Sorik Marapi Mandailing Natal. It is located at Jl. Medan-Padang. This subject of research is at the grade VIII students at SMP N 1 Lembah Sorik Marapi 2015 academic years. This research has been done from September 2014-September 2015.

#### B. Research Design

This research used experimental method in doing the research. L.R. Gay said, “Experimental research is the only type of research that can test hypothesis to establish cause and effect”.<sup>1</sup> In addition, Sugiono said that Experimental research is a research that is used to find the effect of treatment, different with the other research do not use treatment.<sup>2</sup>

From the quotation above, researcher concluded that the experimental research is a kind of research which has the aim to know causal effect relationship between one variable or more variable to other variable. The experimental research controls the selection of participant for the study and divides the select participant into more groups having similar characteristics at

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<sup>1</sup> L.R. Gay and Peter Airasian, *Educational Research for Analysis and Application* (New York:Prentice Hall, 1992), p.367.

<sup>2</sup> Sugiono, *Metode Penelitian Pendidikan*, (Bandung:Alfabeta, 2010), p. 107.

the start of experiment. In this research, researcher used Pre test-Post test Control Group Design.

**Table I**

**Pretest-Post test Control Group Design**

Group	Pre-test	Treatment	Post-test
Experiment	√	X1	√
Control	√	X2	√

### C. Population and Sample

#### 1. Population

According to Suharsimi, “population is all of the subject of the research.”<sup>3</sup>

Then Sukardi said “population is all members of well defined class of people, event, or subject.”<sup>4</sup>

**Table II**

**SMP N 1 LEMBAH SORIK MARAPI**

No	Classroom	Male	Female	Amount
1.	VIII.1	8	14	22
2.	VIII.2	10	13	23
3.	VIII.3	10	13	23
4.	VIII.4	7	13	20

<sup>3</sup> Suharsimi Arikunto, *Prosedur Penelitian Study Pendekatan Praktek* (Jakarta: Rineka Cipta, 1993), p. 108.

<sup>4</sup> Sukardi, *Metodologi Penelitian Pemdidikan* (Jakarta: Bumi Aksara, 2003), p. 53.

5.	VIII.5	8	16	24
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Source: School Administration Data of SMP N 1 Lembah Sorik Marapi

## 2. Sample

Arikunto said. “sample is a part of population which will be researched.”<sup>5</sup> Then, Sugiyono said, “sample is a part of quantity and characteristic that had of population.”<sup>6</sup> So, in this research, the writer use cluster sample. Cluster sample is the technique to get the sample by choosing two classes. The writer chooses VIII-5 consisted of 24 and VIII-4 consisted 20. So, the total samples of the research are 44 students. The writer chooses these classes because the two classes have similar competence in English.

There is table of sample that consisted experimental class and control group.

**Table III**  
**Sample of the research**

Experimental Group	Control Group
VIII 5 = 24	VIII 4 = 20

### a. Normality test

To know whether data of research has normal. So, researcher used chi-Quadrate formula, as follow:

<sup>5</sup> Suharsimi Arikunto, *Op, Cit.* p. 109.

<sup>6</sup> Sugiyono, *Metode Penelitian Bisnis*, (Bandung: CV. Alfabeta, 2007), p.107.

$$x^2 = \sum \left( \frac{f_o - f_h}{f_h} \right)$$

Where:

$x^2$ =Chi-Quadrate

$f_o$ =Frequency is gotten from the sample/result of observation (questioner)

$f_h$ =Frequency is gotten from the sample as image from frequency is hoped from the population.<sup>7</sup>

To calculate the result of Chi- Quadrate uses significant level 5% (0,05) and degree of freedom as big as total of frequency is lessened 3 (dk= k-3).

If result  $x_{count}^2 < x_{table}^2$ . So, it can be concluded that data is distributed by normal.

#### b. Homogeneity variant test

Homogeneity variant test was used to know whether control class and experiment class have the same variant or not. If the of class is same, it is can be called homogeneous. To test it, researcher used formula as follow:

$$F = \frac{\textit{The biggest variant}}{\textit{The smallest variant}}$$

Where:

$n_1$ = Total of the data that bigger variant

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<sup>7</sup> Mardalis, *Metode Penelitian: Suatu Pendekatan Proposal* (Jakarta: Bumi Aksara, 2003), p. 85.



$n_2$  = Total of the data that smaller variant<sup>8</sup>

Hypothesis is rejected if  $F \leq F_{\frac{1}{2}\alpha(n_1-1)(1=n_2-1)}$  While if  $F_{count} > F_{table}$  hypothesis is accepted. It determined with significant level 5% (0,05) and dk numerator is  $(n_1 - 1)$  while dk denominator is  $(n_2 - 1)$ .

#### D. Instrument of Collecting Data

A research must have an instrument in this research because a good instrument can go guarantee for taking the valid data. In addition, Suharsimi Arikunto said, "Instrument of the research is a tool of facility is used by the researcher in collecting data."<sup>9</sup> So, that the process is easier and better with the more careful, complete and systematic. In this research, the writer gave the pre test and post test to experiment and control class. It can see from the table below:

**Table IV**  
**Table of the Design of Instrument**

Class	Pre test	Treatment	Post test
Experiment Class	√	Group work strategy	√
Control Class	√	Conventional strategy	√

Further, in this research to collecting the data by using test. Test is the questionnaire or treatment that is used to measure knowledge, intelligence, and ability or skills of someone or groups. The form of the test is chooses the topic

<sup>8</sup> *Ibid.* p. 250

<sup>9</sup> Suharsimi Arikunto, *Op. Cit*, p. 106

(essay). This test had been given to experiment class and control class which have some item. It was done to know differentiation or comparing between to method to students achievement in writing. So that, there are four value criteria to writing ability. They are: Grammar, vocabulary, mechanics, fluency and form (organization).

### **Grammar**

Score 20 = Few (if any) noticeable errors of grammar or word order.

Score 15 = Some errors of grammar or word order which do not however, interfere with comprehension.

Score 10 = Errors of grammar or word order frequent; efforts of interpretation sometimes required on reader's part.

Score 5 = Errors of grammar or word order so severe as to make comprehension virtually impossible.

### **Vocabulary**

Score 20 = Use of vocabulary correctly

Score 15 = Use wrong or inappropriate words fairly frequently; expression of ideas may be limited because of inadequate vocabulary.

Score 10 = Limited vocabulary and frequent errors clearly hinder expression of ideas.

Score 5 = Vocabulary limitations so extreme as to make comprehension virtually impossible.

### **Mechanics**

Score 20 = Few (if any) noticeable lapses in punctuation or spelling.

Score 15 = Errors in punctuation or spelling fairly frequent; occasionally rereading necessary for full comprehension.

Score 10 = Frequent errors in spelling or punctuation; lead sometimes to obscurity.

Score 5 = Errors in spelling or punctuation so severe as to make comprehension virtually impossible.

### **Fluency**

Score 20 = Choice of structures and vocabularies consistently appropriate; like that of educated native writer.

Score 15 = Occasionally lack of consistency in choice of structure and vocabulary which does not, however impair overall ease of communication.

Score 10 = Structures or vocabulary items sometimes not only inappropriate but also misused; little sense of ease of communication.

Score 5 = Communication often impaired by completely inappropriate or misused structure or vocabulary items.

**Form (Organization)**

Score 20 = Highly organized; clear progression of ideas well linked; like educated native writer.

Score 15 = Some lack of organization; re-reading required for clarification of ideas.

Score 10 = Individual ideas may be clear, but very difficult to deduce connection between them.

Score 5 = Lack of organization so severe that communication is seriously impaired.<sup>10</sup>

**Table V**

**The Indicator of Writing Descriptive Text**

No	Indikator	Number of Items	Score
1	Writing Achievement in Descriptive Text 1. Identification 2. Description	1	30 70
	Total	1	100

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<sup>10</sup> Arthur Hughes, *Testing for Language Teachers* ( New York: Cambrigde University Press, 1990), p. 91-93

For this item, the score is given in writing descriptive text, for identification 30 and description are 70.

### **E. Procedure of Research**

In this research, the writer gave the pre test and post test to two of groups. Sample is divided into two classes. There are experiment class and control class. Experiment class is one class and control class is also one class. Experiment class was given to VIII-4 consist of 20 students. Control class was given to VIII-5 consist of 24 students. Class experiment I was taught by group work strategy.

First, experiment class I. The first day the researcher gave pre test to the students. The second, third and fourth day the writer taught the students using group work strategy. So that, the learning process was three meetings. And the last day, the writer gave post test to the students.

Second, control class. The first day, the writer gave pre test to the students. Then, teach the students using discourse method. And the last, the writer gave post test to the students.

To get the data from the students, the writer collected by giving pre test and post test to students. Test is some of question or view and other tool is used for measure skill, knowledge and intelligence ability. The test is divided into two kinds:

1. Pre test

The function of the pre test is to find the mean scores of the group working strategy before the researcher gives treatment. In this case, the researcher hoped that the whole that the students' writing achievement is same, or if there is a difference between those groups, the difference is hopefully not significant.

## 2. Treatment

The group I and II are given some material, which is consisted of writing achievement aspect that will be taught by the teacher in different ways. The group I is given treatment, it is taught by using group working strategy.

## 3. Post Test

After giving treatment, the researcher conducted a post test which the same test with the pre test. This post test is the final in the research, especially measuring the treatment, whether is significant or not. After conducting the post test, the researcher analyzed the data. And the researcher found out the effect of using Group Working Strategy on student achievement in writing descriptive text.

## **F. Technique of the Data Analysis**

The analysis of data was done to find out the ability of the two groups that have been divided into experimental and control class. In this research, the writer used normality and homogeneity test to take the data. So the formula are:

### 1. Normality test

To know whether data of research has normal. So, researcher used Chi-Quadrate formula, as follow:

$$x^2 = \sum \left( \frac{f_o - f_h}{f_h} \right)$$

Where:

$x^2$  = Chi-Quadrate

$f_o$  = Frequency is gotten from the sample/result of observation (questioner)

$f_h$  = Frequency is gotten from the sample as image from frequency is hoped from the population<sup>11</sup>

To calculate the result of Chi- Quadrate, it was used significant level 5%(0,05) and degree of freedom as big as total of frequency is lessened 3 (dk= k-3). If result  $x_{count}^2 < x_{table}^2$ . So, it can be concluded that data is distributed by normal.

### 1. Homogeneity variant test

Homogeneity variant teat was used to know whether control class and experimental class have the same variant or not. If the both of classes is same, it is can be called homogeneous. To test it, researcher used formula as follow:

$$F = \frac{\textit{The biggest variant}}{\textit{The smallest variant}}$$

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<sup>11</sup>Mardalis, *Loc. Cit.*

Where:

$n_1$  = Total of the data that bigger variant

$n_2$  = Total of the data that smaller variant<sup>12</sup>

Hypothesis is rejected if  $F \leq F_{\frac{1}{2}\alpha(n_1-1)(1=n_2-1)}$  while if

$F_{count} > F_{table}$  hypothesis is accepted. It determined with significant level 5% (0,05) and dk numerator is  $(n_1 - 1)$  while dk denominator is  $(n_2 - 1)$ .

## 2. Hypothesis Test

Data Analysis was used to test the hypothesis by using t-test, that:

$$H_a : \mu_1 \neq \mu_2$$

$$H_0 : \mu_1 = \mu_2$$

If  $H_a : \mu_1 > \mu_2$ , it was mean the result of students' ability in writing procedural text by using task based method to the grade VIII students of SMP Negeri 1 Lembah Sorik Marapi was significant effect. But, if the  $H_0 : \mu_1 \leq \mu_2$  it was mean the result of students' ability in writing procedural text by using task based method to the grade VIII students of SMP Negeri 1 Lembah Sorik Marapi was no significant effect. To test the hypothesis, researcher used the formula as follow:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

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<sup>12</sup>*Ibid.*, p. 250.



Where:

$\bar{x}_1$  = Mean of experimental class sample

$\bar{x}_2$  = Mean of control class sample

$n_1$  = Total of experimental class sample

$n_2$  = Total of control class sample<sup>13</sup>

and the formula of standard deviation was:

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Where:

$s$  = Variant

$s_1^2$  = Variant of experimental class

$s_2^2$  = Variant of control class<sup>14</sup>

To test criteria of hypothesis is if  $H_0$  is accepted by  $-t_{table} < t_{count} < t_{table}$ . By

opportunity  $\left(1 - \frac{1}{2}\alpha\right)$  and  $dk = (n_1 + n_2 - 2)$  and  $H_0$  was rejected if there was  $t$  has the

other results.

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<sup>13</sup>*Ibid.*,p. 219.

<sup>14</sup>*Ibid.*,p. 239.

## CHAPTER IV

### DESCRIPTION OF THE DATA AND DISCUSSION

#### A. Description of the Data

To evaluate the result of teaching writing by using Group working technique to students' descriptive writing ability, researcher has calculated the data by pre-test and post-test. Applying quantitative analysis, researcher used the formulation of t-test. Next, researcher described the data as follow:

##### 1. Description data of Experimental Class

The pre-test scores obtained before teaching in experimental class is as follow:

###### a. Pre test

The score of pre- test in experimental class before teaching is as follow:

**Table VI**

**The Score of Pre- Test in Experimental Class**

Total of score	The highest	The lowest	Mean	Standard deviation	Median	Mode
915	55	25	37.42	8.6	48.25	50

Based on the table above shown that sum of score in experimental class was 915, mean was 37,42, mode was 50, median was 48,25, researcher got the highest score was 55 and the lowest score was 25, and the last standard

deviation was 8,6. Next, the calculation of how to get it can be seen in the appendix 7.

From distributing of the variable data of the test result of students' achievement in writing recount text can be seen to the table and histogram of experimental class in pre-test as follow:

**Table VII**

**The Frequency Distribution of Students' Score in Experimental Class**

No.	Interval	F	%
1.	25-29	6	25%
2.	30-34	5	20,83%
3.	35-39	2	8,33%
4.	40-44	1	4.16%
5.	45-49	-	-
6.	50-54	8	33,28%
7.	55-59	2	8,32%
Total		24	100%

From the table above, the students score that is there in class interval between 25-29 was 6 students (25%), class interval 30-34 was 5 students (20,83%), class interval 35-39 was 2 students (8,33%), class interval 40-44 was 1 students (4,16%), class interval 45-49 was 0 students (0%), class interval 50-54 was 8 students (33,28%), the last class interval 55-59 was 2 students (8,32%).

By visual, distributing of the data can be described to histogram form, as follow:

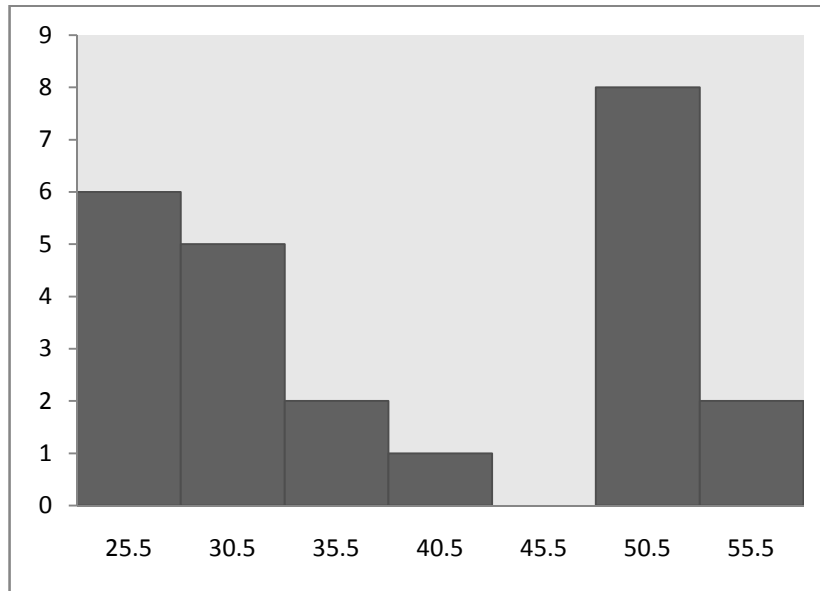


Figure 1: The histogram of students' score of experimental class

Based on result of the test students' achievement in writing recount text, researcher found that mean score of students in the experimental class by using group work strategy is 37,42. Highest score is 55 and smallest score is 25.

**b. Post test**

The score of post test in experimental class after teaching is as follow:

**Table VIII**

**The Score of Post- Test in Experimental Class**

Total of score	The highest	The lowest	Mean	Standard deviation	Median	Mode
1640	95	55	76,34	10,57	75,5	60-70

Based on the table sum of score in experimental class was 1640, mean was 76,34, mode was 60-70, median was 75,5, researcher got the highest score was 95 and the lowest score was 55, and the last standard deviation was 10,57. Next, the calculation of how to get it can be seen in the appendix 9. Then, the computed of the frequency distribution of the students' score in post test of group can be applied in to table frequency distribution as follows:

**Table IX**

**The Frequency Distribution of Students' Score in Experimental Class**

No.	Interval	F	%
1.	55 – 61	12	50%
2.	62 – 68	-	
3.	69 – 75	8	33,33%
4.	76 – 83	-	-
5.	84 – 90	-	-
6.	91 - 97	4	16,66
Total		36	100%

Based on the table, it can be drawn at histogram as below:

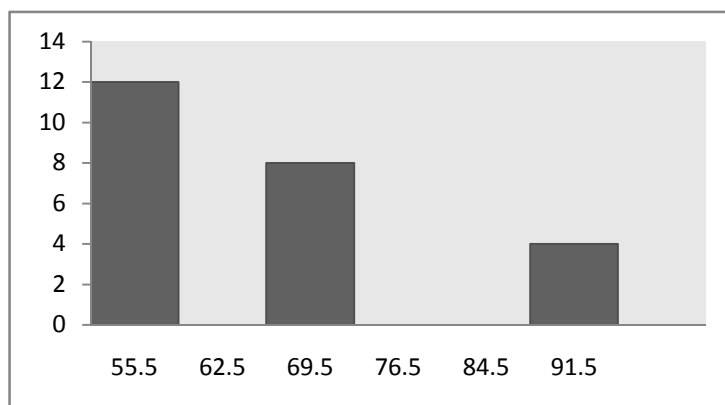


Figure 3: The histogram of students' score of experimental class

## 2. Description Data of Control Class

The post test scores obtained in control class is as follow:

### a. Pre test

**Table X**

**The Score of Pre- Test in Control Class**

Total of score	The highest	The lowest	Mean	Standard deviation	Median	Mode
735	55	25	39,4	6,5	33,5	25

Based on the table sum of score in control class was 735 , mean was 39,4, mode was 25, median was 33,5, researcher got the highest score was 55 and the lowest score was 25, and the last standard deviation was 6,5. Next, the calculation of how to get it can be seen in the appendix 8.

**Table XI**

**The Frequency Distribution of Students' Score in Control Class**

No.	Interval	F	%
1.	25-30	11	55%
2.	31-36	-	-
3.	37-42	2	10%
4.	43-48	-	-
5.	49-54	5	25%
6.	55-60	2	10%
Total		39	100%

Based on the table, it can be drawn at histogram as below:

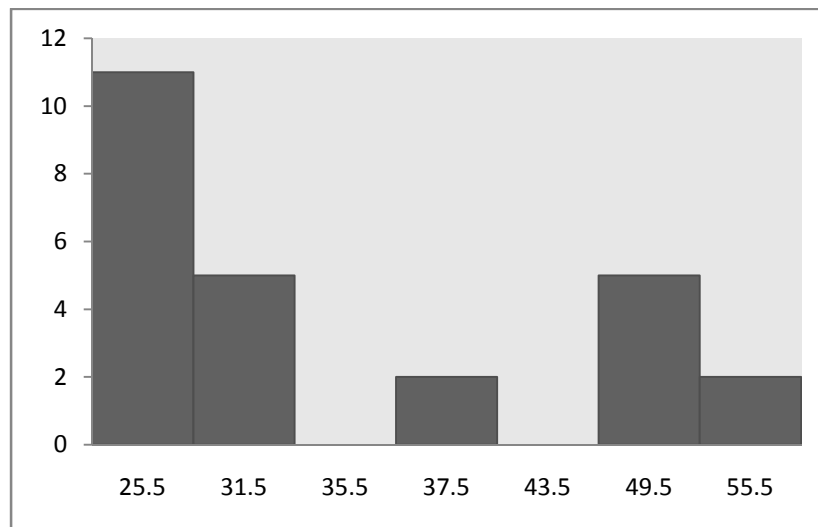


Figure 2: The histogram of students' score of control class

From the above table, the researcher concluded the students' achievement before using group work strategy was low. It was improved by the means score of experimental group class and 37.42 control class was 39,4

#### b. Post test

The score of post- test in control class after teaching is as follow:

**Table XII**

**The Score of Post- Test in Control Class**

Total of score	The highest	The lowest	Mean	Standard deviation	Median	Mode
870	75	25	48	16,7	52	25

Based on the table sum of score in experimental class was 870, mean was 48, mode was 25, median was 52, researcher got the highest score was 75 and the lowest score was 25, and the last standard deviation was 16,7. Next, the calculation of how to get it can be seen in the appendix 10. Then, the computed of the frequency distribution of the student's score in post-test can be applied in to table frequency distribution as follows:

**Table XIII**

**The Frequency Distribution of Students' Score in Control Class**

No.	Interval	F	%
1.	25-34	9	45%
2.	35-44	1	5%
3.	45-54	5	25%
4.	55-64	-	-
5.	65-74	4	20%
6.	75-84	1	5%
Total		20	100%

Based on the table, it can be drawn at histogram as below:

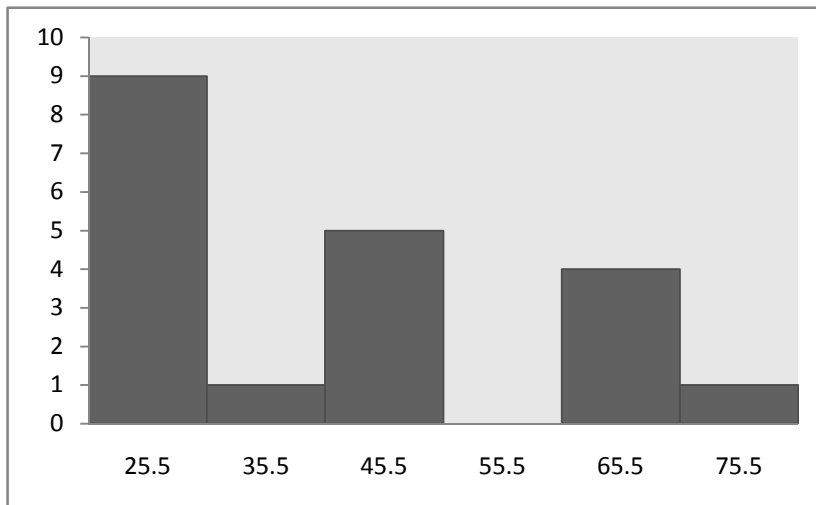


Figure 4: The histogram of students' score of control class.



Next, from calculation above the researcher concluded the students' skill after teaching by using group work strategy was increase quickly. It can be seen from the mean score of experimental class was bigger than control class ( $74.31 > 54,5$ ).

### 3. Hypothesis Test of Pre Test

#### a. Normality

Testing normality of distribution of two group used the chi-squared test. Normality test is used to determine the normality of the experimental class and control class. The data obtained from the average of pre test score in experimental class and control class can be seen in the following table:

Class	$X^2_{\text{count}}$	$X^2_{\text{table}}$
Experimental	9,22	9,48
Control	24	29,553

From the table above it is explained that experimental class and control class distributed normal. Next, the calculation of how to get it can be seen in the appendix 7 and 8.

#### b. Homogeneity

Homogeneity test is intended to determine whether the scores of the samples have the same variance (homogeneous).

Distribution	$F_{\text{count}}$	$F_{\text{table}}$
Homogeneity test	6,75	1,76

Based on the table above described that  $F_{\text{count}} < F_{\text{table}}$  it can be seen in the calculation that explain  $1,29 < 1,76$ . It's mean that both of classes have the same variant. Next, the calculation of how to get it can be seen in appendix 11.

c. Test of Equality Two Mean

Analysis of the data used is t- test test the hypothesis.

Distribution	$t_{\text{count}}$	$t_{\text{table}}$
Equality two mean	-3,25	1,67

Based on the calculation of pre test above it is concluded that the samples are distributed normal, homogeneous. It means that the two classes in this study begin from the same situation. Next, the calculation of how to get it can be seen in appendix 13.

**4. Hypothesis Test of Post Test**

**a. Requirement Test**

1. Normality

Testing normality of distribution of two group used the chi-squared test. Normality test is used to determine the normality of the experimental class and control class. The data obtained from the average of post test score in experimental class and control class can be seen in the following table:

Class	$X^2_{\text{count}}$	$X^2_{\text{table}}$
Experimental	-5,85	7,81
Control	1,6	7,81

From the table above it is explained that experimental class and control class distributed normal. Next, the calculation of how to get it can be seen in the appendix 9 and 10.

## 2. Homogeneity

Homogeneity test is intended to determine whether the scores of the samples have the same variance (homogeneous).

Distribution	$F_{\text{count}}$	$F_{\text{table}}$
Homogeneity test	-0,45	1,76

Based on the table above described that  $F_{\text{count}} < F_{\text{table}}$  it can be seen in the calculation that explain  $1,42 < 1,76$ . It's mean that both of classes have the same variant. Next, the calculation of how to get it can be seen in appendix 12.

### b. Hypothesis Testing

Before make the hypothesis researcher made the formulation of the problem before, the formulation of the problem was “is there the effect of group working technique to students’ descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi?”. Next, the hypotheses of the research was “there is the effect of group working technique to students’ descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi.

Then, researcher have criteria of the test hypotheses, if  $t_0 > t_t$  null hypotheses ( $H_0$ ) is rejected the alternative Hypotheses ( $H_a$ ) is accepted. In turn if  $t_0 < t_t$  the alternative hypotheses ( $H_a$ ) is rejected and null hypotheses ( $H_0$ ) is accepted, it means that the hypotheses of research is rejected. Based on the data collected, the data will be analyzed to prove hypothesis by using formula of t-test.

The degree of freedom (df) is  $= n_1 + n_2 - 2$ . The total of students in every classes are 24 in class VIII-5 and 20 in class VIII-4. So,  $df = 24+20= 44$ , from the percentage points of the t distribution can be seen that the table of significant get point 19,82. After the data calculated the researcher got  $t_0$  is 1,67 whereas  $t_t$  was 1.67. It shown that  $t_0$  is bigger than  $t_t$  ( $19,82 > 1,67$ ). So, the hypotheses null ( $H_0$ ) is rejected and the alternative hypotheses ( $H_a$ ) is accepted. In conclusion, there was the effect of group working technique to students' descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi.

It means that the hypotheses of research is accepted and there is good effect of group working technique to students' writing ability at grade SMP N 1 Lembah Sorik Marapi. It is said because there are different between score of students' writing descriptive text in experimental class and control class. The score in experimental class was bigger than control class.

The students' descriptive text in experimental class is better than control class. It can be seen from mean score in experimental class was 74.31 and mean score in control class was 54,5. Thus, the researcher concluded that there was the significant effect of group working technique to students' descriptive writing ability.

## **B. Discussion**

Based on the theory and related findings, the researcher discussed the result of this researcher and compared with the related findings. First, result of a researcher by using strategy was found that mean score was 61 and 62,7 and the hypothesis was accepted. It means the comprehending both of descriptive and procedure text. Second, the mean score result of a research by using CTL and discussion method was 29,79 and 21,10. Then, the research by using group working technique showed the result in experiment class 74,31 and control class 54.5. It means that result and hypothesis testing showed that group working technique had effect, and the hypothesis alternative ( $H_a$ ) was accepted and hypothesis zero ( $H_0$ ) was rejected.

Therefore, the researcher found the students' descriptive writing technique before using group working technique is lower than the students' descriptive writing after using group work strategy. It can be seen from last score of the calculation above indicated  $t_o > t_t$  ( $22,01 > 1,67$ ).and also from mean score between the experimental group and control group, it is indicated that the score of experimental group was bigger than control class ( $74,31 > 54,5$ ). Finally,

researcher can conclude that the hypothesis was accepted and there was the effect of using group working technique to students' descriptive writing ability.

#### **B. Threats of the Research**

The researcher found the threat of this research as follow; the first, students needed more time for answering the test because the time is 40 minutes/meeting. The second, students were noisy when answering the test it can disturb the concentration and lost their new idea to answer the test.

## CHAPTER V

### CONCLUSION AND SUGGESTION

#### A. Conclusion

Based on the result of the research, researcher concluded;

The students' descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi was 40,6. The students' descriptive writing ability in experiment class at grade VIII SMP N 1 Lembah Sorik Marapi was 74,31. There was the effect of group working technique to students' descriptive writing ability at grade VIII SMP N 1 Lembah Sorik Marapi. Hypothesis alternative ( $H_a$ ) was accepted. It could be seen from mean of experiment class ( $74,31 > 54,5$ ) compared with the mean score in pre-test ( $40,06 > 37,42$ ), and hypothesis zero ( $H_0$ ) was rejected with  $t_o > t_t$  ( $22,01 > 1,67$ ). So, the effect of group working technique to students' descriptive writing ability was an effective and efficient technique and can effect the students' descriptive writing ability. It means that there is significance effect of group working technique to students' descriptive writing ability at VIII SMP N 1 Lembah Sorik Marapi academic year 2014-2015.

#### B. Suggestion

After the researcher finished this research, the researcher got many informations in English teaching and learning process. Therefore researcher has suggestions below:

1. Generally, group working technique can use as an alternative way of teaching in teaching writing

2. For teacher, as an English teacher were hoped to use appropriate method to explain or to teach English subject to the students. Then, from the result of the research, group working technique better than conventional strategy. So that, the writer suggests group working technique can be applied on the English teaching classroom especially for teachers who want to increase students' ability in writing.
3. For the students, it is hoped that by using group working technique the students more interested and active in studying English, because group working technique can reflect their critical thinking to discuss the problem. And improve students' self-confident to express their idea.
4. For the researcher, group working technique as reference to further or other experimental research more paying attention in the efficiency of time.



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**RENCANA PELAKSANAAN PEMBELAJARAN  
(RPP)**

Nama sekolah : SMP N 1 Lembah Sorik Marapi  
Mata Pelajaran : Bahasa Inggris  
Kelas/Semester : VIII/4  
Standar Kompetensi : 12. Menulis  
-Mengungkapkan makna dalam paragraph fungsional dan esai pendek sangat sederhana berbentuk deskripsi paragraph unruk berinteraksi dengan lingkungan terdekat.  
Kompetensi Dasar : 12.2 Mengungkapkan makna dan langkah- langkah retorika dalam esai pendek sangat sederhana dengan menggunakan ragam bahasa tulis secara akurat, lancer dan berterima untuk berinteraksi dengan lingkungan terdekat dalam paragraf berbentuk deskripsi.  
Jenis teks : Descriptive Text  
Alokasi Waktu : 2 x 40 menit ( 1x pertemuan )  
Indikator : 1. Menulis teks berbentuk descriptive

Tujuan Pembelajaran :

Pada akhir pembelajara, siswa dapat :

- Memahami makna dalam paragraf dan esai pendek sangat sederhana a

Materi Pembelajaran : Paragraf fungsional berbentuk deskripsi

**Metode pembelajaran :** Conventional Strategy

**Langkah-Langkah Kegiatan**

a. Kegiatan Pendahuluan

1. Mengucapkan salam
2. Apersepsi
3. Menyiapkan siswa secara psikis/fisik untuk proses pembelajaran
4. Menjelaskan cakupan materi

b. Kegiatan Inti

1. Melibatkan peserta didik mencari informasi yang luas dan dalam tentang topik dan tema materi yang akan dipelajari dan belajar dari berbagai sumber
2. Memperhatikan kosa kata dan tata bahasa yang berkaitan dengan penulisan paragraf deskripsi
3. Menggunakan beragam pendekatan, pembelajaran, media pembelajaran dan sumberb lain.

c. Kegiatan Penutup

1. Bersama-sama dengan peserta didik dan/sendiri membuat rangkuman/simpulan pelajaran.
2. Melakukan Penilaian dan/refleksi terhadap kegiatan yang sudah dilakukan secara konsisten dan terprogram.
3. Memberikan umpan balik terhadap proses dan hasil belajar.
4. Mengucapkan salam.

**Sumber Belajar:**

1. Buku teks
2. Buku-buku lain yang relevan

**Penilaian:**

a. Teknik : Teks Tulisan

b. Bentuk : Esai

c. Pedoman Penelitian

Jawaban Benar : skor 20

Salah : skor 0

Skor maksimal : skor 100

No.	Indicator	
1.	Understanding Identification	30
2.	Understanding Description	70
<b>Total</b>		<b>100</b>

Stnadar of each element	Score
Very good	80-100
Good	70-79
Enough	60-69
Bad	50-59
Fail	0-49

**RENCANA PELAKSANAAN PEMBELAJARAN  
(RPP)**

Nama sekolah : SMP N 1 Lembah Sorik Marapi  
Mata Pelajaran : Bahasa Inggris  
Kelas/Semester : VIII/5  
Standar Kompetensi : 12. Menulis  
-Mengungkapkan makna dalam paragraph fungsional dan esai pendek sangat sederhana berbentuk deskripsi paragraph unruk berinteraksi dengan lingkungan terdekat.  
Kompetensi Dasar : 12.2 Mengungkapkan makna dan langkah- langkah retorika dalam esai pendek sangat sederhana dengan menggunakan ragam bahasa tulis secara akurat, lancer dan berterima untuk berinteraksi dengan lingkungan terdekat dalam paragraf berbentuk deskripsi.  
Jenis teks : Descriptive Text  
Alokasi Waktu : 2 x 40 menit ( 1x pertemuan )  
Indikator : 1. Menulis teks berbentuk descriptive

Tujuan Pembelajaran :

Pada akhir pembelajaran, siswa dapat :

- Memahami makna dalam paragraf dan esai pendek sangat sederhana berbentuk deskripsi untuk berinteraksi dengan lingkungan terdekat.

Materi Pembelajaran : Paragraf fungsional berbentuk deskripsi

**Metode pembelajaran :** Group Working Technique

**Langkah-Langkah Kegiatan:**

1. Menentukan satu topic;
2. Membuat kelompok terdiri atas 3-4 orang;
3. Memberikan garis besar topic berdasarkan struktur deskriptif teks;
4. Menyuruh siswa mendiskusikan dan mendaftarkan ide-ide sesuai dengan kerangka yang sudah dibuat;
5. Menyuruh siswa membandingkan hasil diskusinya dengan kelompok lain dan menambahkan ide-ide baru yang mereka dapat dari kelompok lain;
6. Siswa kembali ke kelompok masing-masing;
7. Siswa menulis teks berdasarkan kerangka yang sudah dihasilkan.

## Sumber Belajar

1. Buku teks
2. Buku – buku lain yang relevan

## Penilaian:

- a. Teknik : Teks Tulisan
- b. Bentuk : Esai
- c. Pedoman Penelitian

Jawaban Benar : skor 20

Salah : skor 0

Skor maksimal: skor 100

No.	Indicator	
1.	Understanding Identification	30
2.	Understanding Description	70
<b>Total</b>		<b>100</b>

Stnadar of each element	Score
Very good	80-100
Good	70-79
Enough	60-69
Bad	50-59
Fail	0-49

Bahan Ajar

## SMP Negeri Lembah Sorik Marapi

1. Lokasinya berada di Pasar Maga, kecamatan Lembah Sorik Marapi kabupaten Mandailing Natal.

2.

3

4.

1. Gurunya berasal dari desa sekitar dan dari luar kecamatan.

2. Murid.....

3. Fasilitas.....

4. Kelas.....

**Validator**

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**Researcher**

**Annasari Rangkuti**  
**NIM. 10 340 040**



## APPENDIX 3

### INSTRUMENT FOR PRE TEST

#### A. Pengantar

1. Instrumen ini bertujuan untuk menjaring data siswa tentang pembelajaran teks descriptive. Oleh sebab itu, jawablah sesuai kemampuan anda.
2. Jawaban anda tidak mempengaruhi kedudukan anda di sekolah ini.
3. Jawaban anda akan dijaga kerahasiaannya.

#### B. Petunjuk

1. Bacalah pertanyaan berikut ini dengan seksama.
2. Jawablah pertanyaan dengan jawaban yang tepat.
3. Apabila pertanyaan kurang jelas tanyakan langsung kepada pengawas.
4. Waktu yang tersedia 40 menit.

#### C. Direction

1. Describe one of the titles below which you like the best:
  - a. SMP Negeri 1 Lembah Sorik Marapi
  - b. Panyabungan City
  - c. My House

## APPENDIX 4

### INSTRUMENT FOR POST TEST

#### A. Pengantar

1. Instrumen ini bertujuan untuk menjangar data siswa tentang pembelajaran teks deskriptif. Oleh sebab itu, jawablah sesuai kemampuan anda.
2. Jawaban anda tidak mempengaruhi kedudukan anda di sekolah ini.
3. Jawaban anda akan dijaga kerahasiaannya.

#### B. Petunjuk

1. Bacalah pertanyaan berikut ini dengan seksama.
2. Jawablah pertanyaan dengan jawaban yang tepat.
3. Apabila pertanyaan kurang jelas tanyakan langsung kepada pengawas.
4. Waktu yang tersedia 40 menit.

#### C. Direction

1. Describe one of the titles below which do you like the best:
  - a. The Sea Eagle
  - b. Payabulan
  - c. My Bedroom

APPENDIX 5

The Score of Experimental Class by Using  
Group Working Technique

No	Student's initial	Pre test							Post test								
		G	V	M	FL	FO	x	x <sup>2</sup>	G	V	M	FL	FO	x	x <sup>2</sup>		
1	NU	10	10	10	10	10	50	1225	20	20	20	15	20	95	9025		
2	PA	10	15	10	10	5	50	2500	10	10	10	15	10	55	3025		
3	PD	10	15	10	5	10	40	1600	10	10	15	10	10	55	3025		
4	RS	5	5	10	5	10	35	1225	15	15	10	10	10	60	3600		
5	RS	5	5	5	5	5	25	625	15	15	15	10	15	70	4900		
6	RS	5	5	5	5	5	25	625	10	15	15	10	10	60	3600		
7	SR	5	5	5	5	10	30	900	10	15	15	10	10	60	3600		
8	SP	5	5	5	5	5	25	625	15	15	15	10	15	70	4900		
9	SH	10	10	10	10	10	50	2500	10	15	15	10	10	60	3600		
10	SM	10	10	10	10	10	50	2500	20	20	20	15	20	95	3025		
11	SP	10	5	5	5	5	30	900	10	10	15	10	10	55	3025		
12	SH	5	5	10	5	10	35	1225	15	15	15	10	15	70	4900		
13	SM	10	10	10	10	10	50	2500	15	15	15	10	15	70	4900		
14	SA	10	10	10	10	10	50	2500	15	15	15	10	15	70	4900		
15	SA	5	10	5	5	5	30	900	15	15	15	10	15	70	4900		
16	SA	10	5	5	5	5	30	900	15	15	10	10	10	60	3600		
17	TA	10	5	5	5	5	30	900	20	20	20	15	20	95	9025		
18	VR	10	15	10	10	10	55	3025	20	20	20	15	20	95	9025		
19	WH	10	10	10	10	10	50	2500	10	10	15	10	10	55	3025		
20	WA	15	10	10	10	10	55	3025	15	15	15	10	15	70	4900		
21	WI	5	5	5	5	5	25	625	15	15	15	10	15	70	4900		
22	YR	5	5	5	5	5	25	625	10	15	15	10	10	60	3600		
23	ZL	5	5	5	5	5	25	625	15	15	10	10	10	60	3600		
24	ZL	10	10	10	10	10	50	2500	15	15	10	10	10	60	3600		
<b>TOTAL</b>								<b>915</b>	<b>38350</b>							<b>1640</b>	<b>107950</b>

APPENDIX 5

The Score of Experimental Class by Using Group Working Technique

No	Student's initial	Pre test							Post test						
		G	V	M	FL	FO	x	x <sup>2</sup>	G	V	M	FL	FO	x	x <sup>2</sup>
1	NU	10	10	10	10	10	50	1225	5	10	15	10	10	50	2500
2	PA	10	15	10	10	5	50	2500	10	15	15	5	10	55	3025
3	PD	10	15	10	5	10	40	5625	20	20	15	15	15	85	7225
4	APR	15	15	15	10	15	70	5625	15	20	15	15	15	80	6400
5	AZI	5	5	5	5	5	25	625	5	10	5	5	10	35	1225
6	ENI	15	15	10	10	10	60	3600	10	15	10	10	5	50	2500
7	HAN	5	5	15	5	5	35	1225	5	10	5	5	5	30	900
8	HAS	10	15	15	10	10	60	3600	10	15	15	10	15	65	4225
9	HAZ	10	10	15	10	10	55	3025	5	10	10	10	5	60	3600
10	HAL	10	15	10	5	5	45	2025	10	15	15	5	10	55	3025
11	HSN	5	5	5	5	5	25	625	10	10	10	10	10	50	2500
12	IMA	10	15	10	5	10	50	2500	5	10	5	5	5	30	900
13	LIA	10	10	10	10	10	50	2500	15	15	15	15	15	70	5625
14	MAY	5	10	10	10	5	40	1600	10	10	10	10	10	50	2500
15	MAD	5	10	10	10	5	40	1600	10	10	15	10	10	55	3025
16	MUH	10	10	15	10	15	60	3600	10	15	15	10	15	65	4225
17	MUM	5	10	10	5	5	35	1225	10	10	15	10	10	55	3025
18	NIS	10	15	10	10	15	60	3600	10	15	15	10	15	65	4225
19	NUR	15	10	10	10	15	60	3600	10	15	10	15	15	65	4225
20	NUZ	5	10	5	10	10	40	1600	10	10	10	10	10	50	2500
21	NUF	5	10	10	10	10	45	2025	10	10	5	10	15	50	2500
22	NAF	10	10	10	10	10	50	2500	10	15	15	10	5	55	3025
23	NUH	5	5	10	5	10	35	1225	10	15	15	10	10	60	3600
24	NFH	15	10	10	10	10	55	3025	10	15	15	10	10	60	3600
25	NSH	5	5	10	5	5	30	900	10	15	15	10	15	65	4225
26	NSY	10	10	10	5	10	45	2025	10	10	15	10	10	55	3025
27	PEP	5	5	15	10	5	40	1600	5	15	15	10	5	50	2500
28	RAF	5	5	10	5	5	30	900	5	10	10	10	5	40	1600
29	RAH	10	10	15	5	5	45	2025	15	15	15	10	15	70	4900
30	RAM	5	15	10	10	10	50	2500	15	15	15	10	15	65	4225
31	RIZ	5	10	5	5	10	35	1225	10	10	10	10	10	50	2500
32	RUK	10	5	5	5	10	35	1225	10	10	10	10	10	50	2500
33	SAK	10	10	15	10	15	60	3600	10	15	15	10	15	65	4225
34	SIT	5	5	10	5	10	35	1225	5	10	10	10	10	45	2025
35	SOP	5	15	10	5	5	40	1600	10	15	15	10	10	60	3600
36	UHR	10	15	15	10	15	65	4225	15	15	15	10	15	70	4900
	<b>TOTAL</b>						<b>1670</b>	<b>83350</b>						<b>2035</b>	<b>120325</b>

**APPENDIX 6**

**The Score of Control Class by Using  
Task Based Language Teaching**

No	Student's initial	Pre test							Post test						
		G	V	M	FL	FO	x	x <sup>2</sup>	G	V	M	FL	FO	x	x <sup>2</sup>
1	AMR	10	15	15	10	10	60	3600	5	10	15	10	10	50	2500
2	AHM	10	10	10	10	10	50	2500	10	15	15	5	10	55	3025
3	AMD	5	10	10	10	5	40	1600	20	20	15	15	15	85	7225
4	AKM	15	20	15	15	15	80	6400							
5	AME	15	15	10	10	10	60	3600	5	10	5	5	10	35	1225
6	AIN	10	15	15	10	15	65	4225	10	15	10	10	5	50	2500
7	AND	10	10	10	10	10	50	2500	5	10	5	5	5	30	900
8	BAH	10	10	5	10	15	50	2500	10	15	15	10	15	65	4225
9	DEW	10	15	10	5	10	50	2500							
10	ELI	15	15	10	15	15	70	5625							
11	HAS	15	15	15	15	10	70	4900	10	10	10	10	10	50	2500
12	HUS	10	15	10	10	15	60	3600	5	10	5	5	5	30	900
13	HAL	10	15	15	5	10	55	3025							
14	IND	15	15	15	10	15	70	4900	10	10	10	10	10	50	2500
15	LUK	5	10	10	10	5	40	1600	10	10	15	10	10	55	3025
16	MHD	5	10	5	10	10	40	1600	10	15	15	10	15	65	4225
17	MHS	10	15	15	10	5	55	3025							
18	MHF	5	10	10	10	5	60	3600							
19	MUA	15	15	15	15	15	75	5625	10	15	10	15	15	65	4225
20	NUR	10	10	15	10	10	55	3025	10	10	10	10	10	50	2500
21	NRA	5	15	15	10	5	50	2500							
22	NUJ	10	10	15	10	10	55	3025							
23	NUA	5	5	15	10	5	40	1600	10	15	15	10	10	60	3600
24	NUH	10	15	15	10	15	65	4225	10	15	15	10	10	60	3600
25	RAU	15	15	15	10	15	70	4900	10	15	15	10	15	65	4225
26	RIZ	15	15	15	10	15	70	4900							
27	RIN	15	15	15	15	10	70	4900							
28	RIK	5	15	10	10	10	50	2500							
29	RIA	5	10	10	10	5	40	1600							
30	RIE	15	15	15	10	15	70	4900	15	15	15	10	15	65	4225
31	RIS	10	10	10	10	10	50	2500							
32	SAK	15	15	15	15	10	70	4900							
33	SAL	5	5	10	5	10	35	1225	10	15	15	10	15	65	4225
34	TAP	5	10	10	5	5	35	1225	5	10	10	10	10	45	2025
35	TOH	5	15	10	5	5	40	1600							
36	ULI	5	10	10	10	5	40	1600							
37	UMH	10	15	15	10	10	60	3600							
38	WIL	15	15	15	15	10	70	4900							

39	YUS	10	10	10	10	10	50	2500							
							2185	12832 5						2035	120325

## APPENDIX 6

### The Score of Control Class by Using Conventional Strategy

No	Student's initial	Pre test							Post test						
		G	V	M	FL	FO	x	x <sup>2</sup>	G	V	M	FL	FO	x	x <sup>2</sup>
1	AS	5	5	5	5	5	25	625	5	5	5	5	5	25	625
2	AA	5	5	5	5	5	25	625	5	5	5	5	5	25	625
3	AR	5	10	5	5	5	30	900	5	10	5	5	5	30	900
4	AH	10	10	5	5	10	40	1600	15	15	15	10	15	70	4900
5	FH	10	15	10	10	10	55	3025	15	15	15	15	15	75	5625
6	FH	10	10	10	10	10	50	2500	10	10	10	10	10	50	2500
7	KS	5	5	5	5	5	25	625	10	10	10	10	10	50	2500
8	LA	10	10	10	10	10	50	2500	10	10	10	10	10	50	2500
9	LK	5	10	5	5	5	30	900	5	5	5	5	5	25	625
10	MH	10	10	10	10	10	50	2500	10	10	10	10	10	50	2500
11	MY	5	10	5	5	5	30	900	5	5	5	5	5	25	625
12	MA	5	5	5	5	5	25	625	5	10	5	5	5	30	900
13	MR	5	5	5	5	5	25	625	5	5	5	5	5	25	625
14	NR	10	10	10	10	10	50	2500	15	15	15	10	15	70	4900
15	NN	5	5	5	5	5	25	625	5	5	5	5	5	25	625
16	PU	5	5	5	5	10	30	900	10	10	10	15	10	45	2025
17	RY	10	10	15	50	5	40	1600	5	10	5	5	10	35	1225
18	RP	10	10	10	10	10	50	2500	15	15	15	10	15	70	4900
19	RA	10	10	10	10	15	55	3025	15	15	15	10	15	70	4225
20	SN	5	5	5	5	5	25	625	5	5	5	5	5	25	625
	<b>TOTAL</b>						<b>735</b>	<b>29725</b>						<b>870</b>	<b>44650</b>

## APPENDIX 7

### Result of the Normality Test of Experimental Class by Using Group Work Strategy in Pre-Test

1. The score of experiment class in pre test from low score to high score:

25 25 25 25 25 25 30 30 30 30  
 30 35 35 40 50 50 50 50 50 50  
 50 50 55 55

2. High = 55

Low = 25

Range = High – Low

$$= 55 - 25$$

$$= 30$$

3. Total of Classes =  $1 + 3,3 \log (n)$

$$= 1 + 3,3 \log (24)$$

$$= 1 + 3,3 (1,38)$$

$$= 1 + 4,55$$

$$= 5,55$$

$$= 6$$

4. Length of Classes =  $\frac{\text{range}}{\text{total of class}} = \frac{30}{6} = 5$

5. Mean

Interval Class	f	X	x'	fx'	x' <sup>2</sup>	fx' <sup>2</sup>
25 – 29	6	27	3	18	9	54
30 – 34	5	32	2	10	4	20
35 – 39	2	37	1	0	1	2
40 – 44	1	42	0	-5	0	0
45 – 49	-	-	-	-	-	-
50 – 54	8	52	-1	-21	1	8
55 – 59	2	57	-2	-8	4	8
<i>i</i> = 7	24			-22		92

$$M_x = M^1 + i \frac{\sum fx^1}{N}$$

$$= 42 + 5 \left( \frac{-22}{24} \right)$$

$$= 42 + 5(-0,91)$$



$$= 42 + (-4,58)$$

$$= 37,42$$

$$SD_t = i \sqrt{\frac{\sum fx'^2}{N} - \left[ \frac{\sum fx'}{N} \right]^2}$$

$$= 5 \sqrt{\frac{92}{24} - \left[ \frac{-22}{24} \right]^2}$$

$$= 5 \sqrt{3,8 - (-0,91)^2}$$

$$= 5 \sqrt{3,8 - 0,82}$$

$$= 5 \sqrt{2,98}$$

$$= 5 (1,72)$$

$$= 8,6$$

**Table of the Frequency Distribution is Expected and Observation**

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	f <sub>h</sub>	f <sub>0</sub>	$\frac{(f_0-f_h)}{f_h}$
55-59	59,5	2,56	0,4948	0,0187	0,448	2	3,46
50-54	54,5	1,98	0,4761	0,569	1,3656	8	4,85
45-49	49,5	1,40	0,4192	0,1253	3,0072	0	-1
40-44	44,5	0,82	0,2939	0,2068	4,9632	1	-0,78
35-39	39,5	0,24	0,0871	0,0751	0,0032	2	6,24
30-34	34,5	-0,33	0,0120	-0,3092	-7,4208	5	-0,33
25-29	29,5	-0,92	0,3212	-0,112	-2,688	6	-3,22
	24,5	-1,50	0,4332				
							9,22

Based on table above, reseracher found that  $x^2_{count} = 9,45$  while  $x^2_{table} = 9,48$ , cause  $x^2_{cause} < x^2_{table}$  ( $9,22 < 9,48$ ) with degree of freedom  $dk = 7 - 3 = 4$  and

significant level  $\alpha = 5\%$ . So distribution of experimental class by using group work strategy (Pre-test) is normal.

## 6. Median

No	Interval of Classes	F	fk
1	25-29	6	6
2	30-34	5	11
3	35-39	2	13
4	40-44	1	14
5	45-49	0	14
6	50-54	8	22
7	55-59	2	24

Explanation :

$$Me = Bb + i \left( \frac{\frac{n}{2} - F}{fm} \right)$$

Me = Median

Bb = Low limit of the interval median conceives Me

Fm = Frequency of class conceives Me

F = Frequency of cumulative before interval of classes conceives Me

i = Length of classes

n = Total of sample

Position of Me in the interval of classes is number 2, that:

Bb = 49,5

F = 14

fm = 8

i = 5

n = 24

1/2n = 12

So :

$$\begin{aligned} \text{Me} &= Bb + i \left( \frac{n/2 - F}{fm} \right) \\ &= 49,5 + 5 \left( \frac{12 - 14}{8} \right) \\ &= 49,5 + 5 (-2/8) \\ &= 49,5 + 5 (-0,25) \\ &= 49,5 + (-1,25) \\ &= 48,25 \end{aligned}$$

7. Modus = 50

## APPENDIX 8

### Result of the Normality Test of Control Class by using Conventional Strategy in Pre-Test

1. The score of experiment class in pre test from low score to high score:

25 25 25 25 25 25 25 30  
 30 30 30 40 40 50 50 50  
 50 50 55 55

2. High = 55  
 Low = 25  
 Range = High – Low  
 = 55 – 25  
 = 30

3. Total of Classes =  $1 + 3,3 \log (n)$   
 =  $1 + 3,3 \log (20)$   
 =  $1 + 3,3 (1,30)$   
 =  $1 + 4,29$   
 = 5,29  
 = 5

4. Length of Classes =  $\frac{\text{range}}{\text{total of class}} = \frac{30}{5} = 6$

5. Mean

Interval Class	f	X	x'	fx'	x' <sup>2</sup>	fx' <sup>2</sup>
25 – 30	11	28	1	11	1	11
31 – 36	-	-	-	-	-	-
37 – 42	2	40	0	0	0	0
43 – 48	-	-	-	-	-	-
49 – 54	5	52	-1	-4	4	5
55 – 60	2	58	-2	-4	4	8
<i>i</i> = 6	20			2		24

$$\begin{aligned}
 Mx &= M^1 + i \frac{\sum fx^1}{N} \\
 &= 40 + 6 \left( \frac{2}{20} \right) \\
 &= 40 + 6(0,1) \\
 &= 40 + (0,6)
 \end{aligned}$$

$$= 40,6$$

$$\begin{aligned} SD_t &= i \sqrt{\frac{\sum fx'^2}{N} - \left[ \frac{\sum fx'}{N} \right]^2} \\ &= 6 \sqrt{\frac{24}{20} - \left[ \frac{2}{20} \right]^2} \\ &= 6 \sqrt{1,2 - (0,1)^2} \\ &= 6 \sqrt{1,2 - 0,01} \\ &= 6 \sqrt{1,19} \\ &= 6(1,09) \\ &= 6,54 \end{aligned}$$

**Table of the Frequency Distribution is Expected and Observation**

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	$f_h$	$f_0$	$\frac{(f_0-f_h)}{f_h}$
55- 60	60,5	3,22	0,4994	0,0101	0,202	2	8,90
49- 54	54,5	2,30	0,4893	0,0710	1,42	5	2,52
43- 48	48,5.5	1,39	0,4177	0,2369	4,738	0	-1
37-42	42,5	0,47	0,1808	0,0108	0,216	2	8,25
31- 36	36,5	-0,44	0,4131	-0,2431	4,862	0	-1
25- 30	30,5	-1,36	0,4884	-0,0753	1,506	11	6,30
	24,5	-2,27					
							23,97=24

Based on table above, reseracher found that  $x^2_{count} = 23,97$  while  $x^2_{table} = 7,815$ , cause  $x^2_{cause} > x^2_{table}$  ( $24 > 7,815$ ) with degree of freedom  $dk = 6 - 3 = 3$  and

significant level  $\alpha = 5\%$ . So distribution of experimental class by using group work strategy (Pre-test) is normal.

#### 6. Median

No	Interval of Classes	F	fk
1	25-30	11	11
2	<b>31-36</b>	<b>0</b>	<b>11</b>
3	37-42	2	13
4	43-48	0	13
5	49-54	5	8
6	55-60	2	20

Position of Me in the interval of classes is number 3, that:

$$\begin{aligned}
 Bb &= 36,5 \\
 F &= 11 \\
 fm &= 2 \\
 i &= 6 \\
 n &= 20 \\
 1/2n &= 10
 \end{aligned}$$

So :

$$\begin{aligned}
 Me &= Bb + i \left( \frac{n/2 - F}{fm} \right) \\
 &= 36,5 + 6 \left( \frac{10 - 11}{2} \right) \\
 &= 36,5 + 6 (-1/2) \\
 &= 36,5 + 6 (-0,5) \\
 &= 36,5 + (-3) \\
 &= 33,5
 \end{aligned}$$

7. Modus = 25

## APPENDIX 9

### Result of the Normality Test of Experimental Class by Using Group Work Strategy in Post-Test

1. The score of experiment class in pre test from low score to high score:

55 55 55 55 60 60 60 60 60 60  
60 60 70 70 70 70 70 70 70 70  
95 95 95 95

2. High = 95

Low = 55

Range = High – Low

$$= 95 - 55$$

$$= 40$$

3. Total of Classes =  $1 + 3,3 \log (n)$

$$= 1 + 3,3 \log (24)$$

$$= 1 + 3,3 (1,38)$$

$$= 1 + 4,55$$

$$= 5,55$$

$$= 6$$

4. Length of Classes =  $\frac{\text{range}}{\text{total of class}} = \frac{40}{6} = 6,66 = 7$

5. Mean

Interval Class	f	X	x	fx	x <sup>2</sup>	fx <sup>2</sup>
55 – 61	12	58	1	12	4	48
62– 68	-	-	-	-	-	-
69 – 75	8	72	0	0	0	0
76 – 83	-	-	-	-	-	-
84 – 90	-	-	-	-	-	-
91 – 97	4	94	-1	-4	1	4
<i>i</i> = 7	24			8		52

$$\begin{aligned} Mx &= M^1 + i \frac{\sum fx^1}{N} \\ &= 72 + 7 \left( \frac{8}{24} \right) \\ &= 72 + 7(0,33) \\ &= 72 + (2,31) \\ &= 74,31 \end{aligned}$$

$$\begin{aligned}
SD_t &= i \sqrt{\frac{\sum fx'^2}{N} - \left[\frac{\sum fx'}{N}\right]^2} \\
&= 7 \sqrt{\frac{52}{24} - \left[\frac{8}{24}\right]^2} \\
&= 7 \sqrt{2,16 - (0,33)^2} \\
&= 7 \sqrt{2,16 - 0,10} \\
&= 7 \sqrt{2,06} \\
&= 7 (1,43) \\
&= 10,01
\end{aligned}$$

**Table of the Frequency Distribution is Expected and Observation**

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	$f_h$	$f_0$	$\frac{(f_0-f_h)}{f_h}$	
90-96	96,5	2,21	0,0871	-0,4129	-9,9096	12	21,90	
83-89	89,5	4, 21	0,5000	0,4681	11,2344	0	-1	
76-82	82,5	0,81	0,0319	-0,0119	-0,2856	8	-29,01	
69-75	75,5	0,11	0,0438	-0,1753	-4,2072	0	-1	
62-68	68,5	0,58	0,2190	-0,179	-4,296	0	-1	
55-61	61,5	-1,27	0,3980	-0,0776	-1,8624	4	-3,147	
	54,5	-1,97	0,4756					
							15,75	

Based on table above, reseracher found that  $x^2_{count} = 15,75$  while  $x^2_{table} = 9,488$  cause  $x^2_{cause} > x^2_{table}$  ( $15,75 > 9,488$ ) with degree of freedom  $dk = 7 - 3 = 4$  and significant level  $\alpha = 5\%$ . So distribution of experimental class by using group work strategy (Post-test) is normal.



## 6. Median

No	Interval of Classes	F	fk
1	55-61	12	12
2	62-68	-	<b>12</b>
3	<b>69-75</b>	<b>8</b>	
4	76-82	-	20
5	83-89	-	20
6	90-96	4	24

Position of Me in the interval of classes is number 2, that:

$$Bb = 75,5$$

$$F = 12$$

$$fm = 8$$

$$i = 7$$

$$n = 24$$

$$1/2n = 12$$

So :

$$\begin{aligned}
 Me &= Bb + i \left( \frac{n/2 - F}{fm} \right) \\
 &= 75,5 + 7 \left( \frac{12 - 12}{8} \right) \\
 &= 75,5 + 7 (0/8) \\
 &= 75,5 + 7 (0) \\
 &= 75,5 + 0 \\
 &= 75,5
 \end{aligned}$$

7. Modus = 60 and 70

## APPENDIX X

### Result of the Normality Test of Control Class by using Conventional Strategy in Post-Test

1. The score of experiment class in pre test from low score to high score:

25 25 25 25 25 25 25 30 30  
 35 45 50 50 50 50 70 70 70  
 70 75

2. High = 75  
 Low = 25  
 Range = High – Low  
 = 75 – 25  
 = 50

3. Total of Classes =  $1 + 3,3 \log (n)$   
 =  $1 + 3,3 \log (20)$   
 =  $1 + 3,3 (1,30)$   
 =  $1 + 4,29$   
 = 5,29  
 = 5

4. Length of Classes =  $\frac{\text{range}}{\text{total of class}} = \frac{50}{5} = 10$

5. Mean

Interval Class	f	X	x	fx	x <sup>2</sup>	fx <sup>2</sup>
25 – 34	9	30	2	18	4	36
35 – 44	1	40	1	1	1	1
45 – 54	5	50	0	0	0	0
55 – 64	-	-	-	-		-
65 – 74	4	70	-1	-8	1	4
75 - 84	1	80	-2	-2	4	4
<i>i</i> = 10	20			9		45

$$\begin{aligned}
 Mx &= M^1 + i \frac{\sum fx^1}{N} \\
 &= 50 + 10 \left( \frac{9}{20} \right) \\
 &= 50 + 10(0,45) \\
 &= 50 + (4,5)
 \end{aligned}$$

$$= 54,5$$

$$\begin{aligned} SD_t &= i \sqrt{\frac{\sum fx'^2}{N} - \left[ \frac{\sum fx'}{N} \right]^2} \\ &= 10 \sqrt{\frac{45}{20} - \left[ \frac{9}{20} \right]^2} \\ &= 10 \sqrt{2,25 - (0,45)^2} \\ &= 10 \sqrt{2,25 - 0,20} \\ &= 10 \sqrt{2,05} \\ &= 7 (1,43) \\ &= 14,31 \end{aligned}$$

**Table of the Frequency Distribution is Expected and Observation**

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	$f_h$	$f_0$	$\frac{(f_0-f_h)}{f_h}$
75-84	84,5	2,09	0,4817	0,006	0,12	9	74
65-74	74,5	1,39	0,4177	0,1628	3,25	1	-0,69
55-64	64,5	0,69	0,2549	0,2549	5,098	5	-0,01
45-54	54,5	0	0,0000	-0,2454	-4,908	0	1
35-44	53,5	-0,06	0,2454	-0,0095	-0,19	4	-22,05
25-34	44,5	-0,69	0,2549	-0,2268	-4,536	1	1,22
	24,5	-2,09	0,4817				
							54,9

Based on table above, reseracher found that  $x^2_{count} = 54,9$  while  $x^2_{table} = 2,36$ , cause  $x^2_{cause} > x^2_{table}$  ( $54,9 > 2,36$ ) with degree of freedom  $dk = 10 - 3 = 7$  and

significant level  $\alpha = 5\%$ . So distribution of control class by using discourse method (Post-test) is normal.

## 6. Median

No	Interval of Classes	F	fk
1	25-34	9	9
2	35-44	1	10
3	45-54	5	<b>15</b>
4	<b>55-64</b>	<b>0</b>	15
5	65-74	4	19
6	75-84	1	20

Position of Me in the interval of classes is number 2, that:

$$Bb = 64,5$$

$$F = 15$$

$$fm = 4$$

$$i = 10$$

$$n = 20$$

$$1/2n = 10$$

So :

$$\begin{aligned}
 Me &= Bb + i \left( \frac{n/2 - F}{fm} \right) \\
 &= 64,5 + 10 \left( \frac{10 - 15}{4} \right) \\
 &= 64,5 + 10 (-5/4) \\
 &= 64,5 + 10 (-1,25) \\
 &= 64,5 + (-12,5) \\
 &= 52
 \end{aligned}$$

7. Modus = 25



## APPENDIX 11

### HOMOGENEITY TEST (PRE-TEST)

Calculation of parameter to get variant of the first class as experimental class sample by using group work strategy and variant of the second class as control class sample by using conventional strategy are used homogeneity test by using formula:

$$S^2 = \frac{n\sum xi^2 - (\sum xi)^2}{n(n-1)}$$

Hypothesis:

$$H_0 : \delta_1^2 = \delta_2^2$$

$$H_1 : \delta_1^2 \neq \delta_2^2$$

A. variant of the experimental class sample by using group work strategy is:

$$n = 24$$

$$\sum xi = 915$$

$$\sum xi^2 = 38350$$

So:

$$\begin{aligned} S^2 &= \frac{n\sum xi^2 - (\sum xi)^2}{n(n-1)} \\ &= \frac{24(38350) - (915)^2}{24(24-1)} \\ &= \frac{920400 - 837225}{24(23)} \\ &= \frac{83175}{552} \\ &= 150,67 \end{aligned}$$

B. Variant of the control class sample by using conventional strategy is:

$$\begin{aligned}n &= 20 \\ \sum xi &= 735 \\ \sum_{xi}^2 &= 29725\end{aligned}$$

So:

$$\begin{aligned}S^2 &= \frac{n\sum x_1^2 - (\sum x_1)^2}{n(n-1)} \\ &= \frac{20(29725) - (735)^2}{20(20-1)} \\ &= \frac{594500 - 504225}{20(19)} \\ &= \frac{54275}{380} \\ &= 142,82\end{aligned}$$

The Formula was used to test hypothesis was:

$$F = \frac{\textit{The Biggest Variant}}{\textit{The Smallest Variant}}$$

So:

$$\begin{aligned}F &= \frac{150,67}{142,82} \\ &= 1,05\end{aligned}$$

After doing the calculation, researcher found that  $F_{\text{count}} = 1,05$  with  $\alpha$  5 % and  $dk = 36$  from the distribution list F, researcher found that  $F_{\text{table}} = 1,73$ , cause  $F_{\text{count}} < F_{\text{table}}$  ( $1,05 < 1,73$ ). So, there is no difference the variant between the first class as experimental class by using group working technique and the second class as control class by using conventional strategy (homogeneous).





## APPENDIX 12

### HOMOGENEITY TEST (POST-TEST)

Calculation of parameter to get variant of the first class as experimental class sample by using group work strategy and variant of the second class as control class sample by using discourse method were used homogeneity test by using formula:

$$S^2 = \frac{n\sum xi^2 - (\sum xi)^2}{n(n-1)}$$

Hypothesis:

$$H_0 : \delta_1^2 = \delta_2^2$$

$$H_1 : \delta_1^2 \neq \delta_2^2$$

A. variant of the experimental class sample by using group work strategy is:

$$\begin{aligned} n &= 24 \\ \sum xi &= 1640 \\ \sum xi^2 &= 107950 \end{aligned}$$

$$\begin{aligned} S^2 &= \frac{n\sum xi^2 - (\sum xi)^2}{n(n-1)} \\ &= \frac{24(107950) - (1640)^2}{24(24-1)} \\ &= \frac{2590800 - 2689600}{24(23)} \\ &= \frac{-98800}{552} \\ &= -178,98 \end{aligned}$$

B. Variant of the control class sample by using discourse method is:

$$\begin{aligned}n &= 39 \\ \sum xi &= 2215 \\ \sum xi^2 &= 129825\end{aligned}$$

$$\begin{aligned}S^2 &= \frac{n\sum x_i^2 - (\sum x_i)^2}{n(n-1)} \\ &= \frac{39(129825) - (2215)^2}{39(39-1)} \\ &= \frac{5063175 - 4906225}{39(38)} \\ &= \frac{156950}{1482} \\ &= 105,90\end{aligned}$$

The formula was used to test hypothesis was:

$$F = \frac{\textit{The Biggest Variant}}{\textit{The Smallest Variant}}$$

So:

$$\begin{aligned}F &= \frac{151,17}{105,904} \\ &= 1,42\end{aligned}$$

After doing the calculation, reseracher found that  $F_{\text{count}} = 1,42$  with  $\alpha$  5 % and  $dk = 36$  from the distribution list F, researcher found that  $F_{\text{table}} = 1,76$ , cause  $F_{\text{count}} < F_{\text{table}}$  ( $1,42 < 1,76$ ). So, there is no difference the variant between experimental class by using group work strategy and control class by using discourse method (homogeneous).

## APPENDIX 13

### HOMOGENEITY TEST OF THE BOTH AVERAGES

The formula was used to analyse homogeneity test of the both averages was t-test, that:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \text{ with } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}}$$

So:

$$\begin{aligned} S &= \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}} \\ &= \sqrt{\frac{(24 - 1)(-178,98)^2 + (20 - 2)(155,49)^2}{24 + 20 - 2}} \\ &= \sqrt{\frac{23(1 - 178,98)^2 + 18(396,31)^2}{42}} \\ &= \sqrt{\frac{-4116,54 + 7133,58}{42}} \\ &= \sqrt{\frac{3017,04}{42}} \\ &= \sqrt{71,83} \\ &= 8,47 \end{aligned}$$

So:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\begin{aligned}
&= \frac{37,42 - 40,6}{\sqrt[8,47]{\frac{1}{24} + \frac{1}{20}}} \\
&= \frac{-3,18}{\sqrt[8,47]{0,0416 + 0,05}} \\
&= \frac{-3,18}{\sqrt[8,47]{0,0916}} \\
&= \frac{-3,18}{0,86} \\
&= -3,69
\end{aligned}$$

Based on researcher calculation result of the homogeneity test of the both averages, researcher found that  $t_{\text{count}} = -10,35$  with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 24 + 20 - 2 = 42$ , researcher found that  $t_{\text{table}} = 1,67$ , cause  $t_{\text{count}} < t_{\text{table}}$  ( $-3,69 < 1,67$ ). So,  $H_0$  is accepted, it means no difference the average between the first class as experimental class by using group working technique and the second class as control class by using conventional strategy in this research.

## APPENDIX 14

### DIFFERENCE TEST OF THE BOTH AVERAGES

To test difference test of the both averages was used t-test formula, that:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \text{ with } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

$H_0$  is accepted if  $t \geq t_{(1-\alpha)(n_1 + n_2)}$  with opportunity  $(1 - \alpha) = 1 - 5 = 95\%$  and  $dk = (n_1 + n_2 - 2)$

So:

$$\begin{aligned} S &= \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}} \\ &= \sqrt{\frac{(24 - 1)(150,67) + (20 - 2)(142,82)}{24 + 20 - 2}} \\ &= \sqrt{\frac{23(150,67) + 18(142,82)}{42}} \\ &= \sqrt{\frac{3465,41 + 2570,76}{42}} \\ &= \sqrt{\frac{6036,17}{42}} \\ &= \sqrt{143,71} \\ &= 11,98 \end{aligned}$$

So:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$\begin{aligned}
&= \frac{74,31 - 54,5}{\sqrt[11,98]{\frac{1}{24} + \frac{1}{20}}} \\
&= \frac{19,81}{\sqrt[11,98]{0,0416 + 0,05}} \\
&= \frac{19,81}{\sqrt[11,98]{0,0916}} \\
&= \frac{19,81}{0,90} \\
&= 22,01
\end{aligned}$$

Based on calculation result of the difference test of the both averages, researcher found that  $t_{\text{count}} = 6,974$  with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 24 + 20 - 2 = 42$ , and researcher found that  $t_{\text{table}} = 1,67$ , cause  $t_{\text{count}} > t_{\text{table}}$  ( $22,01 > 1,67$ ). So,  $H_a$  is accepted, it means that there is significant difference of group working technique and conventional strategy to students' descriptive writing ability.

APPENDIX 15

Percentage Points of the t Distribution

Two Tail Test						
	0,50	0,20	0,10	0,05	0,02	0,01
One Tail Test						
dk	0,25	0,10	0,005	0,025	0,01	0,05
1	1,000	3,078	6,314	12,706	31,821	63,657
2	0,816	1,886	2,920	4,303	6,965	9,925
3	0,765	1,638	2,353	3,182	4,541	5,841
4	0,741	1,533	2,132	2,776	3,747	4,604
5	0,721	1,486	2,015	2,571	3,365	4,032
6	0,718	1,440	1,943	2,447	3,143	3,707
7	0,711	1,415	1,895	2,365	2,998	3,499
8	0,706	1,397	1,860	2,306	2,896	3,355
9	0,703	1,383	1,833	2,262	2,821	3,250
10	0,700	1,372	1,812	2,228	2,764	3,165
11	0,697	1,363	1,796	2,201	2,718	3,106
12	0,695	1,356	1,782	2,178	2,681	3,055
13	0,692	1,350	1,771	2,160	2,650	3,012
14	0,691	1,345	1,761	2,145	2,624	2,977
15	0,690	1,341	1,753	2,132	2,623	2,947
16	0,689	1,337	1,746	2,120	2,583	2,921
17	0,688	1,333	1,743	2,110	2,567	2,898
18	0,688	1,330	1,740	2,101	2,552	2,878
19	0,687	1,328	1,729	2,093	2,539	2,861
20	0,687	1,325	1,725	2,086	2,528	2,845
21	0,686	1,323	1,721	2,080	2,518	2,831
22	0,686	1,321	1,717	2,074	2,508	2,819
23	0,685	1,319	1,714	2,069	2,500	2,807
24	0,685	1,318	1,711	2,064	2,492	2,797
25	0,684	1,316	1,708	2,060	2,485	2,787
26	0,684	1,315	1,706	2,056	2,479	2,779
27	0,684	1,314	1,703	2,052	2,473	2,771
28	0,683	1,313	1,701	2,048	2,467	2,763
29	0,683	1,311	1,699	2,045	2,462	2,756
30	0,683	1,310	1,697	2,042	2,457	2,750
40	0,681	1,303	1,684	<b>2,021</b>	2,423	2,704
60	0,679	1,296	1,671	2,000	2,390	2,660
120	0,677	1,289	1,658	1,980	2,358	2,617
∞	0,674	1,282	1,645	1,960	2,326	2,576

**Appendix 16**

**Z-Table**

<b>z</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.04</b>	<b>0.05</b>	<b>0.06</b>	<b>0.07</b>	<b>0.08</b>	<b>0.09</b>
<b>0.0</b>	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
<b>0.1</b>	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
<b>0.2</b>	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
<b>0.3</b>	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
<b>0.4</b>	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
<b>0.5</b>	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
<b>0.6</b>	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
<b>0.7</b>	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
<b>0.8</b>	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
<b>0.9</b>	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
<b>1.0</b>	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
<b>1.1</b>	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
<b>1.2</b>	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
<b>1.3</b>	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
<b>1.4</b>	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
<b>1.5</b>	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
<b>1.6</b>	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
<b>1.7</b>	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
<b>1.8</b>	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
<b>1.9</b>	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
<b>2.0</b>	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
<b>2.1</b>	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
<b>2.2</b>	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
<b>2.3</b>	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
<b>2.4</b>	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
<b>2.5</b>	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
<b>2.6</b>	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964





APPENDIX 17

**Chi-Square Table**

dk	Significant level					
	50%	30%	20%	10%	5%	1%
1	0,455	1,074	1,642	2,706	3,841	6,635
2	1,386	2,408	3,219	4,605	<b>5,991</b>	9,210
3	2,366	3,665	4,642	6,251	7,815	11,341
4	3,357	4,878	5,989	7,779	9,488	13,277
5	4,351	6,064	7,289	9,236	11,070	15,086
6	5,348	7,231	8,558	10,645	12,592	16,812
7	6,346	8,383	9,803	12,017	14,067	18,475
8	7,344	9,524	11,030	13,362	15,507	20,090
9	8,343	10,656	12,242	14,684	16,919	21,666
10	9,342	11,781	13,442	15,987	18,307	23,209
11	10,341	12,899	14,631	17,275	19,675	24,725
12	11,340	14,011	15,812	18,549	21,026	26,217
13	12,340	15,119	16,985	19,812	22,362	27,688
14	13,339	16,222	18,151	21,064	23,685	29,141
15	14,339	17,222	19,311	22,307	24,996	30,578
16	15,338	18,418	20,465	23,542	26,296	32,000
17	16,338	19,511	21,615	24,769	27,587	33,409
18	17,338	20,601	22,760	25,989	28,869	34,805
19	18,338	21,689	23,900	27,204	30,144	36,191
20	19,337	22,775	25,038	28,412	31,410	37,566
21	20,337	23,858	26,171	29,615	32,671	38,932
22	21,337	24,939	27,301	30,813	33,924	40,289
23	22,337	26,018	28,429	32,007	35,172	41,638
24	23,337	27,096	29,553	33,196	35,415	42,980
25	24,337	28,172	30,675	34,382	37,652	44,314
26	25,336	29,246	31,795	35,563	38,885	45,642
27	26,336	30,319	32,912	36,741	40,113	46,963
28	27,336	31,391	34,027	37,916	41,337	48,278
29	28,336	32,461	35,139	39,087	42,557	49,588
30	29,336	33,530	36,250	40,256	43,773	50,892

APPENDIX 17

**Chi-Square Table**

dk	Significant level					
	50%	30%	20%	10%	5%	1%
1	0,455	1,074	1,642	2,706	3,841	6,635
2	1,386	2,408	3,219	4,605	<b>5,991</b>	9,210
3	2,366	3,665	4,642	6,251	7,815	11,341
4	3,357	4,878	5,989	7,779	9,488	13,277
5	4,351	6,064	7,289	9,236	11,070	15,086
6	5,348	7,231	8,558	10,645	12,592	16,812
7	6,346	8,383	9,803	12,017	14,067	18,475
8	7,344	9,524	11,030	13,362	15,507	20,090
9	8,343	10,656	12,242	14,684	16,919	21,666
10	9,342	11,781	13,442	15,987	18,307	23,209
11	10,341	12,899	14,631	17,275	19,675	24,725
12	11,340	14,011	15,812	18,549	21,026	26,217
13	12,340	15,119	16,985	19,812	22,362	27,688
14	13,339	16,222	18,151	21,064	23,685	29,141
15	14,339	17,222	19,311	22,307	24,996	30,578
16	15,338	18,418	20,465	23,542	26,296	32,000
17	16,338	19,511	21,615	24,769	27,587	33,409
18	17,338	20,601	22,760	25,989	28,869	34,805
19	18,338	21,689	23,900	27,204	30,144	36,191
20	19,337	22,775	25,038	28,412	31,410	37,566
21	20,337	23,858	26,171	29,615	32,671	38,932
22	21,337	24,939	27,301	30,813	33,924	40,289
23	22,337	26,018	28,429	32,007	35,172	41,638
24	23,337	27,096	29,553	33,196	35,415	42,980
25	24,337	28,172	30,675	34,382	37,652	44,314
26	25,336	29,246	31,795	35,563	38,885	45,642
27	26,336	30,319	32,912	36,741	40,113	46,963
28	27,336	31,391	34,027	37,916	41,337	48,278
29	28,336	32,461	35,139	39,087	42,557	49,588
30	29,336	33,530	36,250	40,256	43,773	50,892

**APPENDIX 16**

**Z-Table**

<b>Z</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.04</b>	<b>0.05</b>	<b>0.06</b>	<b>0.07</b>	<b>0.08</b>	<b>0.09</b>
<b>-3.9</b>	0.00005	0.00005	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004	0.00003	0.00003
<b>-3.8</b>	0.00007	0.00007	0.00007	0.00006	0.00006	0.00006	0.00006	0.00005	0.00005	0.00005
<b>-3.7</b>	0.00011	0.00010	0.00010	0.00010	0.00009	0.00009	0.00008	0.00008	0.00008	0.00008
<b>-3.6</b>	0.00016	0.00015	0.00015	0.00014	0.00014	0.00013	0.00013	0.00012	0.00012	0.00011
<b>-3.5</b>	0.00023	0.00022	0.00022	0.00021	0.00020	0.00019	0.00019	0.00018	0.00017	0.00017
<b>-3.4</b>	0.00034	0.00032	0.00031	0.00030	0.00029	0.00028	0.00027	0.00026	0.00025	0.00024
<b>-3.3</b>	0.00048	0.00047	0.00045	0.00043	0.00042	0.00040	0.00039	0.00038	0.00036	0.00035
<b>-3.2</b>	0.00069	0.00066	0.00064	0.00062	0.00060	0.00058	0.00056	0.00054	0.00052	0.00050
<b>-3.1</b>	0.00097	0.00094	0.00090	0.00087	0.00084	0.00082	0.00079	0.00076	0.00074	0.00071
<b>-3.0</b>	0.00135	0.00131	0.00126	0.00122	0.00118	0.00114	0.00111	0.00107	0.00104	0.00100
<b>-2.9</b>	0.00187	0.00181	0.00175	0.00169	0.00164	0.00159	0.00154	0.00149	0.00144	0.00139
<b>-2.8</b>	0.00256	0.00248	0.00240	0.00233	0.00226	0.00219	0.00212	0.00205	0.00199	0.00193
<b>-2.7</b>	0.00347	0.00336	0.00326	0.00317	0.00307	0.00298	0.00289	0.00280	0.00272	0.00264
<b>-2.6</b>	0.00466	0.00453	0.00440	0.00427	0.00415	0.00402	0.00391	0.00379	0.03680	0.00357
<b>-2.5</b>	0.00621	0.00604	0.00587	0.00570	0.00554	0.00539	0.00523	0.00508	0.00494	0.00480
<b>-2.4</b>	0.00820	0.00798	0.00776	0.00755	0.00734	0.00714	0.00695	0.00676	0.00657	0.00639
<b>-2.3</b>	0.01072	0.01044	0.01017	0.00990	0.00964	0.00939	0.00914	0.00889	0.00866	0.00842
<b>-2.2</b>	0.01390	0.01355	0.01321	0.01287	0.01255	0.01222	0.01191	0.01160	0.01130	0.01101
<b>-2.1</b>	0.01786	0.01743	0.01700	0.01659	0.01618	0.01578	0.01539	0.01500	0.01463	0.01426
<b>-2.0</b>	0.02275	0.02222	0.02169	0.02118	0.02068	0.02018	0.01970	0.01923	0.01876	0.01831
<b>-1.9</b>	0.02872	0.02807	0.02743	0.02680	0.02619	0.02559	0.02500	0.02442	0.02385	0.02330
<b>-1.8</b>	0.03593	0.03515	0.03438	0.03362	0.03288	0.03216	0.03144	0.03074	0.03005	0.02938
<b>-1.7</b>	0.04457	0.04363	0.04272	0.04182	0.04093	0.04006	0.03920	0.03836	0.03754	0.03673
<b>-1.6</b>	0.05480	0.05370	0.05262	0.05155	0.05050	0.04947	0.04846	0.04746	0.04648	0.04551

<b>-1.5</b>	0.06681	0.06552	0.06426	0.06301	0.06178	0.06057	0.05938	0.05821	0.05705	0.05592
<b>-1.4</b>	0.08076	0.07927	0.07780	0.07636	0.07493	0.07353	0.07215	0.07078	0.06944	0.06811
<b>-1.3</b>	0.09680	0.09510	0.09342	0.09176	0.09012	0.08851	0.08691	0.08534	0.08379	0.08226
<b>-1.2</b>	0.11507	0.11314	0.11123	0.10935	0.10749	0.10565	0.10383	0.10204	0.10027	0.09853
<b>-1.1</b>	0.13567	0.13350	0.13136	0.12924	0.12714	0.12507	0.12302	0.12100	0.11900	0.11702
<b>-1.0</b>	0.15866	0.15625	0.15386	0.15151	0.14917	0.14686	0.14457	0.14231	0.14007	0.13786
<b>-0.9</b>	0.18406	0.18141	0.17879	0.17619	0.17361	0.17106	0.16853	0.16602	0.16354	0.16109
<b>-0.8</b>	0.21186	0.20897	0.20611	0.20327	0.20045	0.19766	0.19489	0.19215	0.18943	0.18673
<b>-0.7</b>	0.24196	0.23885	0.23576	0.23270	0.22965	0.22663	0.22363	0.22065	0.21770	0.21476
<b>-0.6</b>	0.27425	0.27093	0.26763	0.26435	0.26109	0.25785	0.25463	0.25143	0.24825	0.24510
<b>-0.5</b>	0.30854	0.30503	0.30153	0.29806	0.29460	0.29116	0.28774	0.28434	0.28096	0.27760
<b>-0.4</b>	0.34458	0.34090	0.33724	0.33360	0.32997	0.32636	0.32276	0.31918	0.31561	0.31207
<b>-0.3</b>	0.38209	0.37828	0.37448	0.37070	0.36693	0.36317	0.35942	0.35569	0.35197	0.34827
<b>-0.2</b>	0.42074	0.41683	0.41294	0.40905	0.40517	0.40129	0.39743	0.39358	0.38974	0.38591
<b>-0.1</b>	0.46017	0.45620	0.45224	0.44828	0.44433	0.44038	0.43644	0.43251	0.42858	0.42465
<b>-0.0</b>	0.50000	0.49601	0.49202	0.48803	0.48405	0.48006	0.47608	0.47210	0.46812	0.46414

**APPENDIX 16**

**Z-Table**

<b>z</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.04</b>	<b>0.05</b>	<b>0.06</b>	<b>0.07</b>	<b>0.08</b>	<b>0.09</b>
<b>0.0</b>	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
<b>0.1</b>	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
<b>0.2</b>	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
<b>0.3</b>	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
<b>0.4</b>	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
<b>0.5</b>	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
<b>0.6</b>	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
<b>0.7</b>	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
<b>0.8</b>	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
<b>0.9</b>	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
<b>1.0</b>	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
<b>1.1</b>	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
<b>1.2</b>	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
<b>1.3</b>	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
<b>1.4</b>	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
<b>1.5</b>	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
<b>1.6</b>	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
<b>1.7</b>	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
<b>1.8</b>	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
<b>1.9</b>	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
<b>2.0</b>	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
<b>2.1</b>	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
<b>2.2</b>	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
<b>2.3</b>	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
<b>2.4</b>	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
<b>2.5</b>	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
<b>2.6</b>	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964



APPENDIX 17

Percentage Points of the t Distribution

Two Tail Test						
	0,50	0,20	0,10	0,05	0,02	0,01
One Tail Test						
dk	0,25	0,10	0,005	0,025	0,01	0,05
1	1,000	3,078	6,314	12,706	31,821	63,657
2	0,816	1,886	2,920	4,303	6,965	9,925
3	0,765	1,638	2,353	3,182	4,541	5,841
4	0,741	1,533	2,132	2,776	3,747	4,604
5	0,721	1,486	2,015	2,571	3,365	4,032
6	0,718	1,440	1,943	2,447	3,143	3,707
7	0,711	1,415	1,895	2,365	2,998	3,499
8	0,706	1,397	1,860	2,306	2,896	3,355
9	0,703	1,383	1,833	2,262	2,821	3,250
10	0,700	1,372	1,812	2,228	2,764	3,165
11	0,697	1,363	1,796	2,201	2,718	3,106
12	0,695	1,356	1,782	2,178	2,681	3,055
13	0,692	1,350	1,771	2,160	2,650	3,012
14	0,691	1,345	1,761	2,145	2,624	2,977
15	0,690	1,341	1,753	2,132	2,623	2,947
16	0,689	1,337	1,746	2,120	2,583	2,921
17	0,688	1,333	1,743	2,110	2,567	2,898
18	0,688	1,330	1,740	2,101	2,552	2,878
19	0,687	1,328	1,729	2,093	2,539	2,861
20	0,687	1,325	1,725	2,086	2,528	2,845
21	0,686	1,323	1,721	2,080	2,518	2,831
22	0,686	1,321	1,717	2,074	2,508	2,819
23	0,685	1,319	1,714	2,069	2,500	2,807
24	0,685	1,318	1,711	2,064	2,492	2,797
25	0,684	1,316	1,708	2,060	2,485	2,787
26	0,684	1,315	1,706	2,056	2,479	2,779
27	0,684	1,314	1,703	2,052	2,473	2,771
28	0,683	1,313	1,701	2,048	2,467	2,763
29	0,683	1,311	1,699	2,045	2,462	2,756
30	0,683	1,310	1,697	2,042	2,457	2,750
40	0,681	1,303	1,684	<b>2,021</b>	2,423	2,704
60	0,679	1,296	1,671	2,000	2,390	2,660
120	0,677	1,289	1,658	1,980	2,358	2,617
∞	0,674	1,282	1,645	1,960	2,326	2,576