



**THE EFFECT OF BRAINSTORMING TECHNIQUE  
ON THE STUDENTS'S WRITING ABILITY AT  
GRADE XI SMAN 3 PADANGSIDIMPUAN**

**A THESIS**

*Submitted to the State Institute for Islamic Studies Padangsidimpuan as a  
Partial Fulfillment of the Requirement for the Degree of Graduate Education  
(S.Pd) In English Program*

**Written By:**

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

**2019**



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a.n. Fildayanti Wahyuni Hsb  
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Padangsidempuan, January 2019  
To:  
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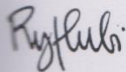
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After reading, studying and giving advice for necessary revision on thesis belongs to Fildayanti Wahyuni Hsb entitled "*The Effect of Brainstorming Technique on the Students's Writing Ability at Grade XI SMAN 3 Padangsidempuan*", we approved that the thesis has been acceptable to complete the requirement to fulfill for the degree of Graduate of Education (S.Pd.) in English.

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

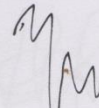
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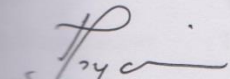


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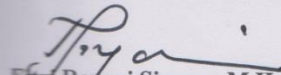
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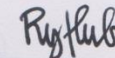
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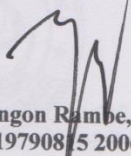
  
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### **ABSTRACT**

This research focuses on solving problems in students's writing text at grade XI of SMAN 3 Padangsidempuan. The students' problems are: students were lack of knowledge; students did not know how to start writing because they cannot generate their ideas so the students write a very short sentence; the students were less understanding about the kinds of genre text; the students were confuse of hints. Beside the students' problem, teacher's technique also became a problem in learning writing text. The teacher still used the conventional strategy in teaching writing text. The purpose of this research was to examine the effect of Brainstorming on Students' Writing Ability at XI Grade of SMAN 3 Padangsidempuan.

The method is used in this research is experimental research. The population was the XI grade SMAN 3 Padangsidmpuan. They were 6 classes. Two classes are chosen randomly as the sample. They were XI IPA 3 consisted of 34 students as experimental class and XI IPA 5 consisted of 34 students as ccontrol class. It is taken after conducting normality and homogeneity test. The data are derived from pre-test and post-test. To measure the data, the researcher used t-test formula to know the significant of hypothesis.

After analyzing the data, the researcher found that mean score of experimental class after using brainstorming was higher than control class. Mean score of experimental class before using brainstorming was 54.14 and mean score after using brainstorming was 70.1. Meanwhile, the mean score of control class in pre-test was 55.29 and in post-test was 61.62. Besides it, the score of tcount was bigger than ttable ( $3.35 > 20.00$ ) It means that the hypothesis alternative ( $H_a$ ) was accepted. It was concluded that there was an effect of brainstorming on students' writing ability at XI grade of SMAN 3 Padangsidempuan.

*Key words: Brainstorming Technique, & Writing Genre Text*

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## **CHAPTER I**

### **INTRODUCTION**

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

There are four skills in English that should be mastered. They are listening, speaking, reading and writing. Speaking and writing are productive skills. Listening and reading are receptive skills. In this case researcher focuses on writing skill that is one of the problematic in factor English learning.

Writing is one of the four basic skills needed to improve the quality of learning. Writing is the process of using symbols (letters of alphabet, and spaces) to communicate thoughts and ideas in readable form which should be mastered by the students. Students are expected to express their ideas, thought, and feelings that they had after undergoing the learning process in a variety of writing that are thought in school has a goal that students are able to write well and truly of writing words, sentences and paragraph.

Writing is an effective way to communicate and expressing thoughts, feelings, and opinions to others that becomes a medium of human communication that represents language and emotion. In most languages, writing is a complement to speech or spoken language. Writing is a transforming process of thought into language, it means that the writer should think the content of first and then arrange the ideas using appropriate language into a paragraph and consequently, organizational skills is writing also should

be learned. It is really hard to combine one sentence to another sentence to be a good paragraph writing.

Writing is important to be learned and mastered by every individual. Writing is regarded as a productive skill it aims at assisting students in expressing their idea written. There are some reasons why writing is important for students in English language learning.

First, to express ideas. Some people sometimes cannot express their ideas, and felling by speaking directly. So they need to write what is on their mind or to express their ideas and felling previously. So the reader will know what the writer's feeling or ideas that the writer cannot express by speaking directly through the writing. By expressing idea, vocabulary will grow. When someone writes every day, the dictionary becomes a best friend. While stringing words and to find the difficult words, dictionary is the first choice to get help and it will increase vocabulary.

Second, writing helps students review and remember recently learned material. A brief writing assignment at the end of class, focusing on the day's lesson and discussion, is a great way to reinforce the material, support long-term recall of the key lesson points and help build writing skill all at the same time. When students write, they also have a chance to be adventurous with the language. They have to be confident with their comprehension of language that is used in writing.

Third, entertaining and making funny. Not only as a media to express ideas and feeling, writing is also has psychological impact. When we wrote the happy memories, it will put a smile on face even its can make laugh which can help to relieve stress in our mind.

In writing there are some kinds of the text, one of them is hortatory exposition text. Hortatory exposition text is to explain readers or listener that something should or should not happen or be done. in the other words, the kind of this text can be called as argumentation. Hortatory exposition text is usually has three components they are thesis; a statement of issue concern, arguments; the reasons of concern that will lead to recommendation and recommendation; the statement of what should or should not happen base on the given arguments.<sup>1</sup> The students need to learn the hortatory exposition text since this type of text is popular among science, academic community and educated people because this text is considered very beneficial to be taught for Senior High School student.

Many students think that writing is boring activity and it is uninteresting for them. They have problems in the school. Actually, students at second grade SMAN 3 Padangsidempuan cannot write well. It is because teacher just focus in giving instruction without giving any hints, any ideas and any suggestions

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<sup>1</sup> Monitha Geraldine, Teaching Writing Hortatory Exposition Text Through Task-Based Language Teaching (TBLT), p. 2 accessed from <http://media.neliti.com> retrieved on February 02<sup>nd</sup> 2017 at 09.00 a.m.

which help the students understand what they were asked to do. Based on private interview with the teacher, it was Mrs. Siti Zubaidah Pemilu, there are some problems that they have when they write, such as:

First, students are lack of knowledge. This is one of the causes of grammatical error. The students don't really understand about the kinds of tenses. When the teacher asked them to write something, the students do not know and confuse what kinds of the tenses that suitable to the text that they will be written.

Second, students do not know how to start writing because they cannot generate their ideas so the students write a very short sentence. When the teacher ask the student to write something such a text, the only write a simply sentence, write what they know, and sometime if they find the difficult word they just let it.

Third, the students are less understanding about the kinds of genre text. So, when teacher ask them to write a genre text, sometimes they do not understand about the generic structure of the text and which tense that used on the text.<sup>2</sup> So base on these problems students to write with good structure.

There are many technique can be conducted in the classroom. The teacher can conduct pre-writing, such as brainstorming, clustering, free-writing, and looping.

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<sup>2</sup> *Private interview*, Siti Zubaidah Pemilu, S.Pd, English Teacger of SMAN 3 Padangsidempuan Private Interview, on 07<sup>th</sup> January 2017, at 08:30 AM

First, Brainstorming is a technique which is generally used in a group setting to quickly generate a large number of ideas about a specific problem or topic. Brainstorming was developed by Alex Osborn to produce ideas without inhibition. Brainstorming technique involves oral and pre-writing exercises for helping the learner and for expressing ideas by the teacher<sup>3</sup>. Brainstorming is a cooperative approach in which a number of people collectively agree upon a solution after all of their ideas are brought forth and discussed. Brainstorming is supposed to be about harnessing the power of thinking to solve that impossible problem. It's the magic that help to find amazing, unique ideas.

Second, clustering is also called mind mapping or idea mapping. It is a strategy that allows the students explore the relationship between ideas. Clustering is especially useful in determining the relationship between ideas. The students will be able o distinguish how the ideas fit together especially where there is an abundance of ideas. In this step, teacher has developed an idea in a few words or sentences, then the students are asked to classify the ideas base on its perspective group.

Third, free-writing is a technique in which a person writes continuously for a set period of time without regard to spelling, grammar or topic. Free-writing is a process of generating a lot of information by writing non-stop. It allows focus

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<sup>3</sup> Bilal Adel Al-khatib, The Effect of Using Brainstorming Strategy in Developing Creative Problem Skills among Female Students in Princess Alia University Collage, American Internasional Journal of Contemporary Research Vol.2 No.10; October 2012, p. 31 accessed from [www.aijcrnet.com](http://www.aijcrnet.com) on 1<sup>st</sup> February 2019 at 08.00 p.m.

on a specific topic, but forces to write so quickly that you are unable to edit any of your ideas.

Based on the techniques above, the researcher chooses brainstorming technique as the effective way to solve the problems. This technique aims to stimulate students' knowledge about the topic, thus drawing together ideas and vocabulary necessary for writing a successful composition.<sup>4</sup>

Brainstorming is a process of thinking freely, creatively, without worrying about the form or appearances or even good sense. Brainstorming technique can help students use their prior knowledge in their writing activity and recognize what skills and information they have and what they need to know. Teaching students brainstorming techniques in class is reasonable because it might assist them to cultivate their writing and create ideas that are necessary in second language acquisition. Brainstorming technique is a valuable technique in developing students' ideas before they actually start writing task<sup>5</sup>. Brainstorming is all of the writing and thinking about writing that do before start writing a paper.

Brainstorming has many benefits for students to construct their good writing to solve the students' writing skill. There are some reasons why researcher chose brainstorming to teaching writing. First, this technique gives enough

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<sup>4</sup>Virginia Evans, *Successful Writing Proficiency*, (Liberty House, New Greenham Park, Newbury, Berkshire RG19 6HW: Express Publishing:1998),p.2

<sup>5</sup> Mohammad Rostampour, The Effect of Brainstorming as a Pre-writing Strategy on EFL Advanced Learners' Writing Ability, *Journal of Applied Linguistic and Language Research* Volume 2, Issue 1, 2015, p 88 accessed from <https://www.researchgate.net> on 31 January 2019 at 10.08pm.



opportunity for students to express their ideas freely about the main topic given by teacher, and then they could discuss and share ideas with each other. Second, brainstorming offers the teacher an opportunity to help students more active, giving feedback on ideas, and helping students develop the topics. Third brainstorming also helps to develop organizational skill as students have an opportunity to clarify and organize ideas before they write.

Based on the explanation above the researcher believes that this technique can solve the student problem in English learning especially students' writing ability because writing ability because this technique helps the students to express their idea without fear of being wrong. This technique will train the students to think quickly and stimulate students to always be ready to argue.

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

Based on the background of the study above, there are some problems related to student's writing ability at eleven grade of SMA N 3 Padangsidimpuan, they are grammatical errors because the students are lack to master the kinds of the tenses, difficult to make a good sentence and always write a short and simply sentences, less understanding about the type of genre text.

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

Based on identification of the problem above, the researcher is limited on students' less understanding about the kinds of genre text and student cannot generate their ideas before writing. Then the researcher tried to investigate causal-effect relationship the using of brainstorming technique to students'

writing genre text especially hortatory exposition text at grade XI SMAN 3 Padangsidempuan.

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

The problem is this research can be formulated as follows bellow:

1. How was the students' writing ability before using brainstorming at grade XI SMAN 3 Padangsidempuan.
2. How was the students's writing ability after using brainstorming at grade XI SMAN 3 Padangsidempuan.
3. Was there significant effect of using brainstorming on students' writing ability at grade XI SMAN 2 Padangsidempuan.

#### **E. Purpose of Research**

The purpose of research are:

1. To describe the student's writing ability before using brainstorming technique at grade XI SMAN 3 Padangsidempuan.
2. To describe the student's writing ability after using brainstorming technique at grade XI SMAN 3 Padangsidempuan.
3. To examine whether the significant effect of using brainstoeming and without use it at grade XI SMAN 3 Padangsimpuan.

## **F. The Significance of the Research**

The significances of research are:

1. English teachers, the result of this study will add knowledge and information about the weakness which the student often make and serve as feedback to improve all of teacher in teaching material as well.
2. Students, it can help them to know their mistakes, their weakness in their learning process of understanding about their weakness, and to improve their ability, exactly their competence.
3. Other researcher, as info to do some research that relates with this problem

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

### **1. Brainstorming Technique (Variable X)**

Brainstorming is a structured process for having ideas. Brainstorming is a technique that's a purpose is to initiate some sort of thinking process.<sup>6</sup> So brainstorming technique is to think of many ideas think of different ideas and to suspend judgment until students' have produced many different ideas.

### **2. Writing Ability (Variable Y)**

Writing ability is the skill of putting together what is on the mind, think or say by using words, which a person reading it is able to know the ideas and feeling of the writer. There are some steps in writing process they are:

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<sup>6</sup> Douglas Brown, *Teaching by Principles*, (San Francisco State University:1994), p. 181

discovering and organizing the idea, writing or putting them on paper, reshaping and revise the writing.<sup>7</sup> The importance of writing can be seen from the fact that scientific books novels, reports, letter, newspaper, magazines, brochures, commercial advertisements are products of writing.

#### **H. The Outline of Thesis**

The systematic of this research is divided into five chapters. Each chapter consists of many sub chapters with detail as follow:

Chapter one discusses about the background of the problems, identification of the problems, formulation of the problems, limitation of the problems, purpose of the research, significances of the research, definition of operational variables and the outline of the thesis.

Chapter two, it consists of the theoretical description that explain about writing ability and brainstorming technique. The review of related findings, conceptual of framework, and hypothesis.

Chapter three, consists of research of methodology which consist of place and time of the research, research design, population and sample, instruments of collecting data, validity and reability, procedures of the research and the last technique of analyzing the data.

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<sup>7</sup>Alan Meyers, *Gateways Academic Writing, Effectives Sentence, Paragraph and Essays* (Longman:2005), p. 2

Chapter four, it consist the result of the research , talking about the analysis of the data. It consist of description of the data, hypothesis testing, discussion of the research and threats of the research.

Finally, in chapter five consist of conclusion the result of the research and suggestions to students and teacher by researcher.



## CHAPTER II

### THEORITICAL DESCRIPTION

#### A. Theoretical Description

##### 1. Brainstorming

###### a. Definition of Brainstorming

Brainstorming is a cooperative approach in which a number of people collectively agree upon a solution after all of their ideas are brought forth and discussed. Brainstorming is a technique used to generate a number of ideas to help solve a particular problem. The technique has been around for over 70 years to engage students in solving a range of problems.

Al Maghrawy defines brainstorming as a group creativity forum for general ideas. Brainstorming was developed by Alex Osborn to create the ideas without inhibition. Brainstorming technique engage oral and prewriting exercises for helping the learner and for articulating ideas by the teacher<sup>1</sup>. Brainstorming is a group problem solving method that involves the spontaneous contribution of creative ideas and solutions.

According to Salem Khalaf Ibranian, brainstorming is a technique used to encourage individuals to generate ideas and come up in a list of possible solution to a certain problem<sup>2</sup>. Brainstorming technique that involves oral and pre-writing exercise for helping the learner and for expressing ideas by the teacher. It is a technique that is used under the discussion method.

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<sup>1</sup>Tayyaba Zarif, Role of Using Brainstorming on Student Learning Outcomes During Teaching of S.Students at Midle Level, Interdisclipnary Journal Of Contemporary Research In Business Vol.4, No.9 January 2013, p. 1090 accessed from *ijrb.webs.com* on 20 May 2017 at 08.51 p.m.

<sup>2</sup> Salem Saleh Khalaf Ibranian, Brainstorming and Essay Writing in EFL Class (Finland Academic Publisher, 2011), p. 264 accessed from *citeseerx.ist.psu.edu* on 20 May 2017 at 09.00p.m.

Brainstorming has a great importance in the teaching process, such as to help students to solve problems, to help students to benefit from the ideas of others through the development and build on them, and help the cohesion of the students and build relationship among them.

Based on the definitions above, brainstorming is an activity that conducted with accommodating all the student's ideas to solve a problem. In this technique, students are given freedom to argue about the topic that given by teacher.

#### **b. The procedure in Brainstorming Session**

There are five steps of brainstorming process in writing, as follow:

1. Brainstorm list. In this step, the writer quickly makes a list of every word, every phrase, every ideas that comes into the writer's mind about the topic. Write every thought down. Don't worry if it is correct or not. The goal is to list as much as possible as quickly as possible.
2. Edit brainstorming list. The second step is to edit the brainstorming list. In this step, the writer includes in the final paragraph and what he/she want to omit by combining ideas that belong together, crossing out words that repeat the same ideas, and crossing out that are not directly related to the main ideas.
3. Organize the list. The third step is to put the list in order. Here, the steps should be in time order. What happens first? Second? Third? Last? Notice that each step is given a capital letter (A, B, C, etc.).
4. Making an outline. The fourth step is to add title and give a topic sentence. Here, the title is centered at the top. The topic sentence is placed below the title and the five steps listed under the topic sentence and have capital letters (A, B, C, and so on).
5. Writing the paragraph. The last step is to write the paragraph based on the outline made.<sup>3</sup>

Al- Maghrawy mentioned for stage or procedure that must be followed in problem solving within the brainstorming session, they are:

1. Phrasing the Problem, the teacher who is responsible on the sessions offers a problem and discusses its various dimensions for students to ensure understanding.
2. Framing the problem, in this stage the teacher determines the problem accurately by reframing the problem in.

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<sup>3</sup>Sabarun, The Effectiveness of Using Brainstorming Technique In Writing Paragraph Across the Different Level of Achievement at the Second Semester English Department Students of Palangka Raya State Islamic Institute p. 70-71 accessed from <http://www.researchgate.net> on 4<sup>th</sup> Juny 2018



3. Practicing for one or more than one statement in problem, this step is very important as many ideas are generated.
4. Offering the ideas, brainstorming sessions lead to generate a big of number of ideas and therefore, those ideas must be evaluated and select the most suitable and important ones.<sup>4</sup>

Abdullahi Naser also explains that to run a group brainstorming session effectively, here are some steps to do:

1. Prepare the group. First, sets up a comfortable meeting environment for the session and make sure that the room is well-lit.
2. Present the problem, clearly define the problem that want to solve, and lay out any criteria that you need. Make it clear that the meeting's objective is to generate many ideas as possible.
3. Guide the discussion, once everyone has shared their ideas, start a group discussion to develop other people's ideas and use them to create new ideas. Building on other's ideas is one of the most valuable aspects of group brainstorming. Encourage everyone to contribute and to develop ideas, including the quietest people, and discourage anyone from criticizing ideas.<sup>5</sup>

Base on the explanations above, the conclusion are: the students are given freedom and chance to express what on their mind without criticized by teacher.

### **c. Advantages of Brainstorming Technique**

Besides define about definition of using brainstorming, there are some advantages that give benefit for teaching and learning English in writing. There are some advantages of brainstorming technique, they are:

1. Students are active to express opinions
2. Students think fast and logically
3. Stimulate students to always ready to argue base on the topic
4. Increase students participation in receiving the lessons
5. Students who are less get help from the teacher
6. Students fell happy and enjoy
7. Democracy and discipline can be cultivated<sup>6</sup>

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<sup>4</sup> Bilal adel al-khatib, The Effect of Using Brainstorming Strategy..... p. 31

<sup>5</sup> Abdullahi Naser Mohammad AlMutairi, The Effect of Using Brainstorming Technique in Developing Creative Problem Solving Skill among male Students in Kuwait, Journal of Education and Practice Vol 6, No.3, 2015,p. 138 accessed from [www.iiste.org](http://www.iiste.org) on 23 May 2017 at 107.00 p.m.

<sup>6</sup> Roestiyah N.K., *Strategi Belajar Mengajar* (Jakarta: Rineke Cipta, 2001),p. 74

Its mean students are more confident to express their ideas without feeling fear because all ideas are accepted.

## 2. Conventional Technique

Conventional methods are taught to be traditional methods that usually used to teach the text to student and still done by teacher. Conventional method is the method that used by the teacher based on mutual agreement in a school.

One of conventional method that teacher used in SMAN 3 Padangsidempuan in learning process is lecture method<sup>7</sup>. Where teacher explain the material and students only listen the teacher without feedback from students. There are some step that usually teacher do in conventional technique, they are:

There are some steps before showing this method, they are:

- a. Preparation (Create the learning condition to students)
- b. Implementation (Teacher conveys the material then given opportunity to students for connecting and comparing the material of lecturer that had accepted through catechizing)
- c. Evaluation (Give a test to students for looking students' comprehension about material that had learned).<sup>8</sup>

After explanation above, teacher is given an opportunity to students for making a summary and generalization about the main problem in formula, rule or general principle. Then, teacher gives ideas to students' idea that organized as completing, correcting and stressing. In other hand, teacher also gives a conclusion and formula clearly

## 3. Writing

### a. Definition of Writing

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<sup>7</sup> *Private Interview*, Siti Zubaidah Pemilu, S.,Pd, in SMAN 3 Padangsidempuan

<sup>8</sup> Syaiful Bahri Djamarah, *Strategi BelajarMengajar*, (Jakarta: PT, Asdi Maharsya, 2006) p. 23

Writing is one of the language skills to convey thoughts, ideas, desires, and feelings which performed through written foam. Writing has been with us for several thousand years, and nowadays is more important than ever. When we write, unlike when we talk, we are engaged in an activity which is usually at the same time both private and public<sup>9</sup>. Writing is one of the process to express what on someone's mind through a lettering.

According to Alan Meyers writing is an action. There are some steps in writing process of discovering and organizing the idea they are, writing or putting them on paper, reshaping and revise the writing<sup>10</sup>. According to Chastain writing is a basic communication skill and a unique asset in the process of learning a second language<sup>11</sup>. According to John Langan writing is a process of discovery that involves a series of steps, and those steps are very often a zigzag journey.<sup>12</sup> So, according to experts' explanation above writing is one of a media to express ideas, thoughts and feeling in a written form.

## **b. The Writing Process**

Writing is a process that involves several steps they are:

1. **Creating (Prewriting):** The first step in the writing process is to choose a topic and collect information about it. Prewriting is the thinking, talking, reading and writing we do about our topic before we write a first draft. Prewriting is a way of warming up our brain before we write, just as we warm up our body before we exercise.
2. **Planning (Outlining):** in this step, organize the idea into outline. As a first step toward making an outline, divide the ideas in the communication problems list further into sublists and cross out any items that do not belong or that are not usable.

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<sup>9</sup> Geoffrey, at all , *Teaching English as a Foreign Language (2<sup>nd</sup> edition)*, (New York: Routledge, 2003), p. 116

<sup>10</sup> Alan Meyers, *Gateways Academic Writing, Effectives Sentence, Paragraph and Essays* (Longman:2005),p. 2

<sup>11</sup> Mehdi Mirlohi, The effect of Istruction on Writing Performance of Intermediate EFL Persian Students, *International Journal of Linguistics* Vol.4 No. 4 2012, (Sheikhbahaee University Iran : 2012), p .327 accessed from [www.macrothink.org/ijil](http://www.macrothink.org/ijil) on 29 May 2017 at 04.03 p.m.

<sup>12</sup> John Lagan, *College Writing Skills, Media Edition (5<sup>th</sup> Edition)*, (USA: McGraw Hill, 2003), p. 13

<sup>14</sup> Ann Hogue and Alice Oshima, *Writing Academic English, Fourth Edition*, (Pearson Education,2006), p. 265-277

3. Writing: step 3 in the writing process is writing the rough draft. Follow the outline as closely as possible, and don't worry about grammar, punctuation, or spelling. A rough draft is not supposed to be perfect.
4. Polishing: this step also called revising and editing. Polishing is most successful if do it in two stages. First, attack the big issues of content and organization (revising). Then work on the smaller issues of grammar and punctuation (editing)
5. It is almost impossible to write a perfect paragraph on the first try. When students revise, they review their text on the basis of the feedback given in the previous stage.<sup>13</sup>

The nature of the writing process will help the writer produce stronger, more focused work because it highlights connections and allows for movement between research and the phases of writing.

### c. Purpose of writing

In addition, there are really only four common purposes in writing they are:

1. To inform, to inform is to transmit necessary information about the subject to the readers, and usually this means just telling the reader what the facts are or what happened.
2. To explain, writing to explain means writing to take what is unclear and make it clear.
3. To persuade, the most important writing we ever do in our personal life, our work life and may be our school life will probably persuasion. Your task in persuasion is to convince your reader to accept the main idea, even though it may be controversial.
4. To amuse, writing to amuse requires that you focus on readers other than yourself. Writing to amuse gives you an opportunity to bring pleasure to others.<sup>14</sup>

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<sup>14</sup>Purpose for writing pdf, accessed from <http://sites.newpaltz.edu> on 10 Juny 1017 at 03.40 p.m

From explanation above, the researcher define that writing is has some purposes. It is the reason why writing is one of skill that must be learned and the reason why students must be mastery in writing skill.

#### **d. Writing Assessment**

Writing is the skill that has result in the end process. According to David Nunan, there are five criterias of writing assessment. They are:

1. Grammar is the part of study of language which deals with forms and structure of word
2. Vocabulary is defined as an interrelated group of non-verbal system, symbols, sign, and gesture
3. Mechanic, the criteria is talk about pronunciation and spelling of the writing
4. Fluency, in fluency of writing must be consistence between choice of structures with vocabulary and also both of them must be appropriate
5. Form is the main of the main assessments in writing ability. This criteria is identified introduction body, and conclusion of writing task.<sup>15</sup>

The criteria above are to know the result that students get when they are writing there must be asses.

#### **4. Hortatory Exposition text**

##### **1. Definitions of Hortatory Exposition Text**

2. Hortatory Exposition is a type of English text that belongs to the class of argumentation. In hortatory Exposition, there are some opinions about certain things to reinforce the main ideas of the text.

A hortatory exposition is a type of spoken or written text that is intended to explain the listeners or readers that something should or should not happen or be done. In other words, the main function of Hortatory Exposition text is to persuade the readers or listener that something should or should not be the case<sup>16</sup>.

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<sup>15</sup>David Nunan, *Practical English Language Teaching*, (New York: McGraw-Hill:2003), p. 88

<sup>16</sup> Rahmad Husein, and Anni Holila Pulungan, *Sumber Belajar Penunjang Plpg 2017 Mata Pelajaran/Paket Keahlianbahasa Inggris Hortatory Exposition Text*, (Kementerian Pendidikan Dan Kebudayaan/direktorat Jenderal Guru Dan Tenaga Kependidikan 2017), p. 1

To strengthen the explanation, the speaker or writer needs some arguments as the fundamental reasons of the given idea. In other words, this kind of text can be called as argumentation.

Hortatory exposition text, either written or spoken text, belongs to argumentative text. The writer tries to persuade the reader that something should or should not be done by stating some reasonable lists of arguments or facts.<sup>17</sup> So hortatory exposition text is a written text that is instead to explain the listeners or readers that something should or should not happen or be done.

### **3. Generic Structure of Hortatory Exposition Text**

There are some generic structures of Hortatory Exposition text. They are thesis, argumentation and recommendations.

#### **a. Thesis**

Thesis is also called a general statement. It contains a writer's statement of his/her position about a certain topic or problem.

#### **b. Argumentations**

Argumentation contains an explanation and description of facts to support the statement on the thesis.

#### **c. Recommendation**

Recommendation contains a suggestion, and advice or recommendation. A writer gives the recommendation or suggestion that should be or not be done by the readers.

Here is an example of the text:

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<sup>17</sup> Hesti Wijaya and Hadrian Priangga Putri, "Using KWL Strategy to Improve The Reading Comprehension Skill on Hortatory Exposition Texts" (University of Muhammadiyah Yogyakarta: 2015), p.4 accessed on <http://media.neliti.com> on 12 June 2017 at 11.21 a.m.

## **The Influence of TV**

### *Thesis*

In Britain, television is very popular. The British call television “the box” or “the telly”. The average British person watches 26 hours of TV a week. The average American watches about 42 hours a week. In America, they call someone who watches a lot of TV a “couch potato”. Is all this television good or bad for us?

### *Argument 1*

Many people think TV is bad for us. They say all the violence on TV encourage people to become violent. The violence can give the children bad ideas and nightmares. It can also make people very passive. Instead of doing active things like playing sports, they just sit in front of TV. Some people worry because families do not talk to each other. Some families even have a TV set in every room so they don't fight over which program to watch.

### *Argument 2*

On the other hand, TV can be useful. We can learn from television. We can listen to famous song and see distant places. We can learn about the world and the animals in the world. We can hear about the news when it happen.

### *Recommendation*

On balance, I think TV is useful. The problem is not the television, but the programs we choose to watch. We must learn how to do this with newspapers, books and magazines. Now we must learn to do this with television program too. After all, it's our choice.

## **d. Language Features in Hortatory Exposition Text**

There are language features in Hortatory Exposition text, as below:

- a. Focusing on the writer
- b. Using abstract noun (love, kindness, happiness, government)
- c. Using action verb ( sleep, watching, writing)
- d. Using thinking verb ( wonder, worry, think)
  - 1) Using modal adverb (certainly, surely, etc)
  - 2) Using temporal connective; firstly, secondly, however, therefore, etc)
  - 3) Using evaluative words( important, valuable, trustworthy, etc)
  - 4) Using passive voice (some flower are planted by my parents)
  - 5) Using simple present tense
  - 6) The use of modals and adverbs (e.g. may, must, should, etc)

- 7) The use of emotive words (e.g. worried, alarmed etc)
- 8) The use of words that qualify statements (e.g. usual, probably etc)
- 9) The use of subjective opinions using pronouns I and we<sup>18</sup>

Actually there are some text that have a same language features. Every genre have language feature. One of sign that known genre the text is hortatory exposition text is tenses. Tenses show the time of act. Kind of hortatory exposition text is used to differentiate between another kinds of text.

## B. Review of Related Findings

There are some related findings related to this research. The first is

The first is Semi Luxiana, the conclusion that there was the effect of using brainstorming technique toward ability in writing hortatory exposition text, where the mean the students' motivation in writing in hortatory exposition text in experimental class increase from 59.76% to 79.80%. In control class increased from 57.64% to 64.42%. It can be said that there is the significant effect by using of brainstorming technique toward ability in writing hortatory exposition text at the second year students of SMAN 1 Pangkalan Lesung of Pelalawan Regency.<sup>19</sup>

The second, Shela Rizkina. The conclusion that there was the effect of using brainstorming in writing, where the mean of post-test in experimental class was 82.27 and controlled class was 75.07. From the result, it can be concluded that there is a significant effect of using brainstorming in writing ability.<sup>20</sup>

The third, Ernawati Gultom. Her research said the result of t-test calculation showed that t-observed is higher than t table or it can be seen as follow :  $t\text{-obs} > t\text{-table}$  ( $\alpha=0.05$ )

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<sup>18</sup> Suparmin and Rahmadi Dadang S, *Bridge to the World English Book for Senior High School*,(Surakarta:CV Mediatama, 2012), p.193-194

<sup>19</sup> Semi Luxiana, "The Effect of the Brainstorming Technique Toward Motivation in Writing Hortatory Exposition Text at Second Year Students of SMAN 1 Pangkalan Lesung of Pelalawan Regency" (Pekanbaru: Faculty Of Education and Teacher Training State Islamic University of Sultan Syarif Kasim Riau, 2012) retrieved from :*repository.uin-suska.ac.id* on July 02<sup>nd</sup> 2017 at 10.00 a.m.

<sup>20</sup> Shela Rizkina, "The Effect of Brainstoming Technique in Writing Desriptive Text at VIII Grade of MTsN Stabat " (Medan: UIN Sumatera Utara, 2017) accessed from *repository.uinsu.ac.id* on July 02<sup>nd</sup> 2017 at 10.13 a.m



with  $df : 40$  ( $5.51 > 1.684$  ( $\alpha = 0.05$ ) with  $df:40$ ). It means that there is a significant effect of using brainstorming teaching technique on students' achievement in writing narrative paragraph.<sup>21</sup>

Actually, the related findings and this research do not have the same formulation problem, but this research concerns the effect of this technique, it is Brainstorming. The researcher believes that there is the effect of Brainstorming Technique on Students' Writing Ability and this research is complete and contributes to previous findings. So, the researcher did the research about "The Effect of Brainstorming Technique on Students' Writing Ability at XI Grade in SMAN 3 Padangsidempuan."

### C. Conceptual Framework

The goal of writing is to express ideas, thoughts, feelings, and desires through graphic symbols. Talking about teaching in general and teaching English in particular is not about considering the material to be given, but also about students' mental condition. Shy students should be encouraged to take part in the teaching-learning process. The teacher must choose the suitable technique for the students to make them easier in practice writing.

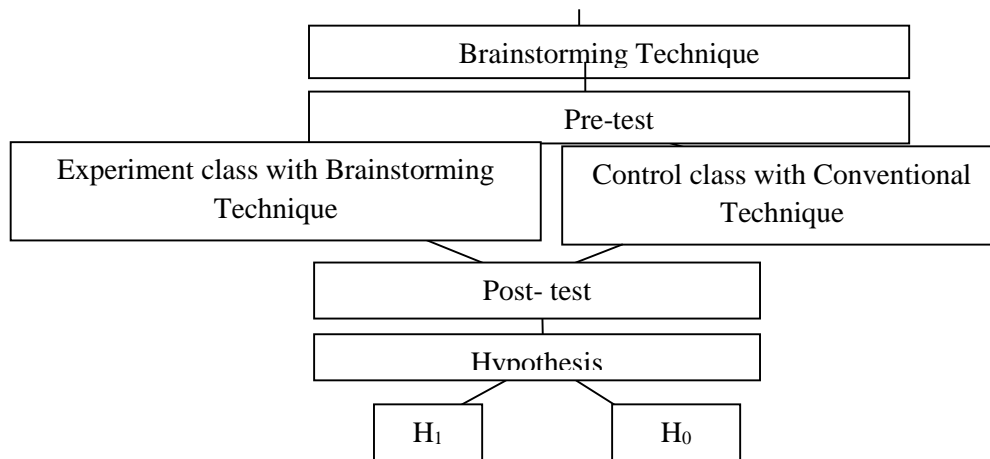
The students will be more interested in writing and it will make them easy in composing or organizing the text.

Conceptual framework that do as below:

- |   |
|---|
| <ol style="list-style-type: none"> <li>1. Students are lack to master the kinds of tenses</li> <li>2. Students always write a short and simply sentence</li> <li>3. Students less understanding about the type of genre text</li> </ol> |
|---|

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<sup>21</sup> Ernawati Gultom, "The Effect of Brainstorming Teaching Technique on Students' Achievement in Writing Narrative Paragraph at Second Grade Students of SMA Swasta Raksana Medan" (Medan: Universitas Medan) accessed from <https://media.neliti.com> on July 02<sup>nd</sup> 2017 at 10.30 a.m.



The researcher found the problem that students are lack of vocabulary, write with very simple sentence and also they don't really understand about tenses. Therefore, in this case researcher uses brainstorming technique to solve the problems. Before conducting brainstorming technique, researcher would give pre-test to control and experimental class. After that, researcher would teach writing ability by using brainstorming technique to experimental class while the control class would be taught by using conventional technique. Then, researcher would give post-test to both classes. The last, researcher would compare the writing result of pre-test and post-test between experimental and control class to prove the hypothesis.

#### D. Hypothesis

Hypothesis is the provisional result of the research. The hypotheses of this research are:

1. There is the significant effect of using Brainstorming Technique to students' writing ability at XI Grade in SMAN 3 Padangsidempuan ( $H_a$ ).  $\mu_1 > \mu_2$

2. There is no significant effect of using Brainstorming Technique to students' writing ability at XI Grade in SMAN 3 Padangsidempuan ( $H_0$ ).  $\mu_1 = \mu_2$ .

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. Place and Schedule of the Research

The research had been done at SMAN 3 Padangsidempuan. It is located on Perintis Kemerdekaan Street No.56 Padangsidempuan Selatan. The schedule of this research is from December 2016 up to finished.

#### B. Research Design

The researcher used two classes in this research. One of the class was taught by using Brainstorming and called as experimental class, meanwhile the other class was taught by conventional method (lecture method) called as control class. The research design of this research can be seen in the following table:

**Table 1**  
**Table of Research Design**

Class	Pre-test	Treatment	Post-test
Experimental Class	√	√	√
Control Class	√	×	√

#### C. Population and Sample

##### 1. Population

The population of the research is XI grade of SMAN 3 Padangsidempuan.

It consist of 6 classes with 200 students. It can be seen in the following table:

**Table 2**  
**The Population of the grade XI students of SMAN 3 Padangsidempuan**

NO	Class	Students
1	XI IPA 1	30
2	XI IPA 2	35
3	XI IPA 3	34
4	XI IPA 4	34
5	XI IPA 5	34
6	XI IPA 6	33
TOTAL		200

## 2. Sample

Sample is a part of population which would be researched. According to Gay and Airasian, a sample comprises the individuals, items or events selected from a larger group referred to as a population. In this research, the use random sampling to take the sample. Random sampling is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample<sup>1</sup>. The researcher used the trick to take the sample using a lottery technique of taking random sampling. All the population or all the grade XI class are folded, then, the researcher shake them. After that, the researcher took 2 folded classes.

Before choosing the sample, the researcher test normality and homogeneity test to get sample that have similar competence with the way like in the following.

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<sup>1</sup>L.R Gay and Peter Airasian, , *Educational Research for.....* p. 123.

### a. Normality Test

Normality test is used to know whether the data of research is normal or not. The researcher uses normality test with using *Chi-Quadrate*, as follow:

$$x^2 = \sum \left( \frac{f_0 - f_h}{f_h} \right)$$

Where:

$x^2$  = Chi-Quadrate

$f_0$  = 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>2</sup>.

To calculate the result of Chi-Quadrate, it is used significant level 5% (0,05) and degree of freedom as big as total of frequency is lessened 3 ( $dk=k-3$ ). If result  $x^2_{count} < x^2_{table}$ . So, it can be concluded that data is distributed normal. Based on the calculation of normality test in pre-test, the researcher found that there were two classes that classified normal. They were; XI IPA 3 with degree of freedom ( $dk$ ) =  $6-1 = 5$  ( $-0.66 < 11.070$ ) and XI IPA 5 with degree of freedom ( $dk$ ) =  $6-1 = 5$  ( $-0.2 < 11.070$ ).

### b. Homogeneity test

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<sup>2</sup> Anas Sudjiono, *Pengantar Statistik Pendidikan*, (Jakarta: PT. Raja Grafindo Persada, 2005), p. 298.

Homogeneity test is used to know whether control class and experimental class have the same variant or not. If the both of classes are same, it is can be called homogeneous. . It uses Harley test, as follow:

$$F = \frac{\text{the biggest variant}}{\text{thesmallest variant}}$$

Where:

$n_1$  = Total of the data that bigger variant

$n_2$  = Total of the data that smaller variant<sup>3</sup>.

Hypothesis is accepted if  $F_{(table)} \leq F_{(count)}$

Hypothesis is rejected if  $F_{(table)} \geq F_{(count)}$

Hypothesis is accepted if  $F_{(table)} \leq F_{(count)}$  while hypothesis is rejected if  $F_{(table)} \geq F_{(count)}$ . Hypothesis is rejected if  $F \leq F_{1/2}$  a  $(n_1 - 1)$   $(1 = n_2 - 1)$  while if  $F_{count} > F_{table}$  hypothesis is accepted. It determined with significant level 5% (0.005) and dk numerator is  $(n_2 - 1)$ .

Based on explanation above, the researcher had given pre-test to know whether the samples are homogenous and normal or not. After calculating the data, the researcher had found that both of two classes (XI IPA 3 and XI IPA 5). In this research, researcher chose XI IPA 3 as experimental class and it class consisted of 34 students whereas XI IPA 5 as control class and it consisted of 34 students. So total sample of the reserach were 68 students. It can be seen from the table below:

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<sup>3</sup> Agus Irianto, *Statistik Konsep Dasar dan Aplikasinya*, (Padang: P2LPTK Departemen Pendidikan Nasional, 2003), p. 276.

**Tabel 3**  
**The sample of the research**

Sample	Class	Total
Experimental Class	XI IPA 3	34
Control Class	X IPA 5	34
Total		68

#### **D. Instrument of Data Collecting**

Essay test is an instrument for this research. Essay test is attest that demand a tester to give some answer in essay form or the sentences that arranged by his word. This test is to explore student's ability in writing hortatory text. The test is made base on the topic that have been learn by the students which customized with their book and syllabus.

From explanation in chapter II writing assesment or writing test there are five aspects. There are grammar, vocabulary, mechanic, fluency and form. The function of the test is to measure students in writing. In arranging the test, researcher follows the indicator writing that had been validated from Nur Azizah's script.



**Table 4**  
**Rubric Score of Writing Test**

Indicators	Score			
Grammar	20	15	10	5
Vocabulary	20	15	10	5
Mechanics	20	15	10	5
Fluency	20	15	10	5
Form (organization)	20	15	10	5

### 1. Grammar

The criteria of scoring are as determined by ranges of the scores as following:

No	Indicator	Score
1	Few (if any) noticable errors of grammar or word order	20
2	Some error of grammar or word order which do not however, interview with comprehension	15
3	Error of grammar or word order frequent: efforts of interpretation sometimes required an reader's part	10
4	Errors of grammar or word order so severe as to make comprehension virtually impossible	5

### 2. Vocabulary

No	Indicator	Score
1	Use of vocabulary and idiom rarely (it at all) distinguishable from that of educative native writer	20
2	Use writing or inappropriate word fairly frequently expression of ideas maybe limited because of in adequate vocabulary	15
3	Limited vocabulary so frequent errors clearly hinder expression of ideas	10
4	Vocabulary limitation so extreme as to make comprehension virtually impossible	5

### 3. Mechanic

No	Indicator	Score
1	Few (if any) noticeable lapses in punctuation or spelling	20
2	Occasional lapses in punctuation or spelling which do not, however interfere with comprehension	15
3	Frequent error in spelling or punctuation sometimes to obscurity	10
4	Error in spelling or punctuation so severe as to make comprehension virtually impossible	5

### 4. Fluency

No	Indicator	Score
1	Choice of structures and vocabularies consistently appropriate: like that of educated native writer	20
2	Patchy, with some structures or vocabulary items noticeably inappropriate to general style	15
3	Patchy, with some structures or vocabulary items noticeably inappropriate to general style	10
4	Communication often impaired by completely inappropriate/misused structures or vocabulary items	5

### 5. Form (organization)

No	Indicator	Score
1	Highly organized clear progression of ideas well linked: like educated native writer	20
2	Some lack of organization re-reading required for clarification of ideas	15
3	Individual ideas maybe clear, but very difficult to deduce connection between them	10
4	Lack of organization so severe that communication is seriously impaired	5

#### A. The Procedures of the Research

In collecting data the researcher uses test to students. The kind of the test is essay test. The test divided into two kind; pre-test and post test. The procedures as bellow:

## 1. Pre-test

It is a test that is given before doing the treatment to the students. It is needed to know the students' ability in experiment and control class before the researcher gives the treatment to experiment class. It is also used to find out the homogeneity and normality level of the sample. The researcher will use some steps in giving pre-test. They are:

- a. The researcher prepared an instruction of essay test.
- b. The researcher distributed the test paper to both class; experiment and control class.
- c. The researcher explained what the students need to do
- d. The researcher gave the time to the students to do the instruction.
- e. The researcher collected the test paper.
- f. The researcher checked the answer of students and counts the students' score.

## 2. Treatment

After giving the pre-test, the students would be given treatment. The experimental class will be taught by using Brainstorming Technique, while the control class taught by conventional strategy. The researcher has some procedure in treatment class. They are:

- a. Researcher opened learning activity with greeting. Then, asks students to take a pray. Next, researcher explains about the hortatory exposition text.

- b. The researcher explained the hortatory exposition text by using Brainstorming technique.
- c. The researcher gave a model of hortatory exposition text and discusses about it with students.
- d. The researcher asked students to construct a text which is suitable with the example given by using Brainstorming technique.
- e. The researcher asked the students to perform their writing in front of the class.
- f. The researcher made summary or conclusion about important information from the text and the lesson.
- g. The researcher closed the class by taking a pray.

### **3. Post – Test**

After giving treatment, the researcher conducts a post-test. This post-test is the final test in the research for measuring the treatment, whether is an effect or not Brainstorming technique on students' writing ability. After conducting the post-test, the researcher analyzes the data. The researcher has some procedure. They are:

- a. The researcher prepared an instruction of essay test.
- b. The researcher distributed the paper of the test to students of experimental class and control class.
- c. The researcher explained what the students need to do.

- d. The researcher gave the time to the students to answer the questions.
- e. The researcher collected the test paper.
- f. The researcher checked the answer of students and counts the students' score.

## **B. Technique of Analyzing Data**

Experimental design, the research pattern is being done toward experimental class and control class. After experimental process, two of classes are tested with using technique of data analysis as follow:

### **1. Requirement test**

#### **a. Normality Test**

To know the normality, the researcher uses *Chi-Quadrate* formula. The formula is as follow:

$$x^2 = \sum \left( \frac{f_0 - f_h}{f_h} \right)$$

Where:

$x^2$  = Chi-Quadrate

$f_0$  = 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

## b. Homogeneity

Homogeneity test is used to know whether control class and experimental class have the same variant or not. If both of classes are same, it is can be called homogeneous. Homogeneity is the similarity of variance of the group will be compared. So, the homogeneity test has function to find out whether the data homogent or not. It uses Harley test, as follow:

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

Where :

$n_1$  = Total of the data that bigger variant

$n_2$  = Total of the data that smaller variant<sup>4</sup>.

Hypothesis is rejected if  $F \leq F_{\frac{1}{2}}(n_1-1) (1=n_2-1)$ , while if  $F_{\text{count}} > F_{\text{table}}$  hypothesis is accepted. It determined with significant level 5% (0.05) and dk numerator was  $(n_1-1)$ , while dk deminator is  $(n_2-1)$ .

## C. Testing Hypothesis

To know the difference between experimental and control class the data will be analyzed by using *t-test* formula. The formula is as follow:<sup>5</sup>

$$T = \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum x_1^2 + \sum x_2^2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

---

<sup>4</sup> Agus Irianto, *Statistik Konsep Dasar dan Aplikasinya*, (Padang: P2LPTK Departemen Pendidikan Nasional, 2003), p. 276.

<sup>5</sup> Suharsimi Arikunto, *Prosedur Penelitian Suatu.....*, p. 354.

Where:

T = The value which the statistical significance

$M_1$  = The average score of the experimental class

$M_2$  = The average score of the control class

$\sum x_1^2$  = Deviation of the experimental class

$\sum x_2^2$  = Deviation of the control class

$n_1$  = Number of experimental class

$n_2$  = Number of control class

It means that:

$H_a: \mu_1 \neq \mu_2$

$H_o: \mu_1 = \mu_2$

If  $H_a: \mu_1 > \mu_2$ , it was mean that result of students' writing hortatory exposition text at second grade SMAN 3 Padangsidempuan was significant effect. But, if the  $H_o$ : it was meaning the result of students' writing hortatory exposition text using brainstorming technique grade XI SMAN 3 Padangsidempuan was no significant effect.

## **CHAPTER IV**

### **THE RESEARCH RESULT**

To analyze the data, the researcher has collected data through pre test and post test in the both classes, experimental class and control class. To find out the effect of using Brainstorming Technique on the students' Writing ability, the researcher has calculated the data by using quantitative analysis. The researcher used the formulation of t-test to test the hypothesis. Next, the researcher described the data as follow:

#### **A. Description of Data**

##### **1. Description of Data before Using Brainstorming Technique**

###### **a. Description data of Pre-test Experimental Class**

As the experimental class, the researcher took class XI IPA 3. Based on students' answers in pre-test the researcher has calculated the students' score in appendix 5 the total score of experimental class in pre-test was 1825, mean was 54.4, median was 46.22, modus was 48.7, range was 45, interval was 8, standard deviation was 10.88, and variant was 117.13 The researcher got the highest score was 75 and the lowest score was 30.



**Table 5**  
**The Score of Experimental Class in Pre-test**

Total	1825
Highest score	75
Lowest score	30
Mean	54.4
Median	46.22
Modus	48.7
Range	45
Interval	8
Standard deviation	10.88
Variant	117.13

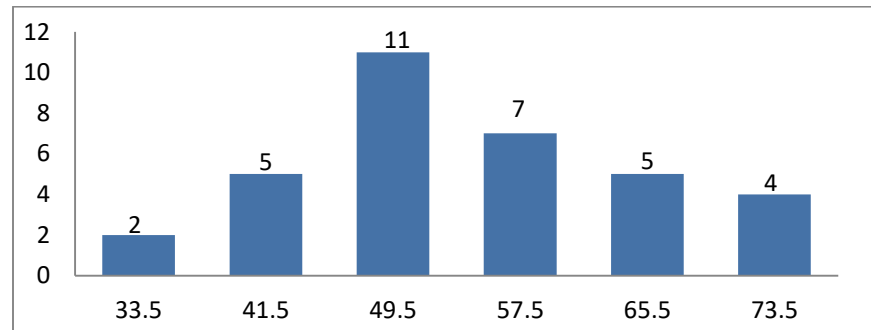
From the table below, it can be concluded that the most students are in interval 46 – 53 (11 students/32.35%). The least of students is 30-37 (2 tudents/6.23%).

**Table 6**  
**Frequency Distribution of Experimental Class In Pre-test**

No	Interval	Mid Point	F	Percentages
1	30-37	33.5	2	5.88%
2	38-45	41.5	5	14.71%
3	46-53	49.5	11	32.35%
4	54-61	57.5	7	20.59%
5	62-69	65.5	5	11.71%
6	70-77	73.5	4	11.76%
I=8				100%

Clear description of the data is presented in histogram. Based on the figure above, the frequency of students' score from 30 up to 37 was 2; 38 up to 45 was 5; 46 up to 53 was 11; 54 up to 61 was 7; 62 up to 69 was 5; 70 up to 77 was 4. The histogram shows that the highest

interval (70 - 77) was 4 students, and the lowest interval (30-37) was 2 students.



**Figure 1. Description of Pre- test Experimental Class**

#### **b. Score of Pre-Test Control Class**

In pre-test of control class, the researcher calculated the result that had been gotten by the students in answering question. The result of this class was the total score of control class in pre-test was 1895, mean was 55.29, standard deviation was 10.78, variants was 110.81, range was 40, interval was 7, median was 49.2 and modus was 50.53. The researcher got the highest score was 75 and the lowest score was 35. Researcher describes the result on the table below:

**Table 7**  
**The Score of Control Class in Pre-Test**

Total	1895
Highest score	75
Lowest score	35
Mean	55.29
Median	49.2
Modus	50.53
Range	40

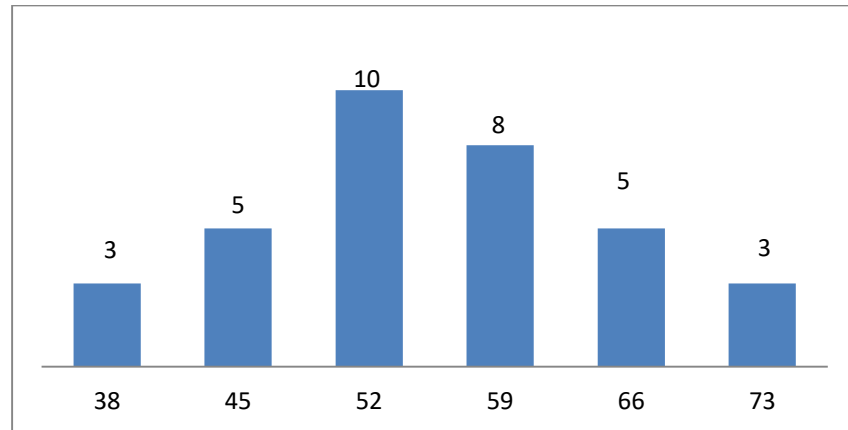
Interval	7
Standard deviation	10.78
Variant	110.81

Then, the calculation of the frequency distribution of the students' score of control class was the middle interval (56 – 62) had the biggest frequency (10 students/29.41%). The highest interval (75-81) had 5 students and the lowest interval was (40 – 46) with 2 students. It can be applied into table frequency distribution as follow:

**Table 8**  
**Frequency Distribution of Control Class (Pre-test)**

No	Interval	Mid Point	Frequency	Percentages
1	70 – 76	73	3	8.82%
2	63 – 69	66	5	14.71%
3	56 – 62	59	8	23.53%
4	49 – 55	52	10	29.41%
5	42 – 48	45	5	14.71%
6	35 – 41	38	3	8.82%
	I=7			100%

Based on the figure below, the frequency of students' score from 35 up to 41 was 3; 42 up to 48 was 5; 49 up to 55 was 10; 56 up to 62 was 8; 63 up to 69 was 5; 70 up to 76 was 3.



**Figure 2. Description Control Class Pre-test**

## 2. Description of Data After Using Brainstorming Technique

### 1. Score of Post-Test Experimental Class

The calculation of the result that had been gotten by the students in answering the question (test) after the researcher did the treatment by using Outlining technique. The total score of experiment class in post-test was 2390, mean was 70.1, standard deviation was 10.88, variant was 125.66, median was 59.7, range was 45, modus was 62.5, and interval was 8. The students' highest score was 90 and the lowest score was 45. It can be seen from the table follow:

**Table 9**  
**The Score of Experimental Class in Post Test**

Total	2390
Highest score	90
Lowest score	45
Mean	70.1
Median	59.7
Modus	62.5
Range	45

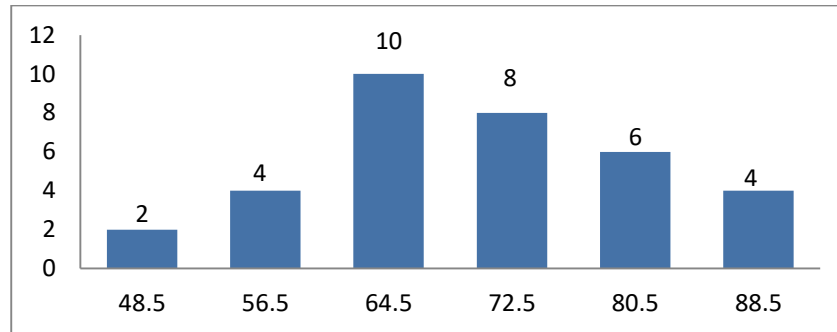
Interval	8
Standard deviation	10.88
Variant	125.66

Then, the calculation of the frequency distribution of the students' score of experiment class can be concluded that the middle interval (61–68) had the biggest frequency (10 students/29.41%). The highest interval (85–92) had 4 students and the lowest interval was (45 – 52) with 2 students. It can be applied into table frequency distribution as follow:

**Table 10**  
**Frequency Distribution of Experimental Class in Post-test**

No	Interval	Mid Point	Frequency	Percentages
1	85 – 92	88.5	4	11.76%
2	77 – 84	80.5	6	17.64%
3	69 – 76	72.5	8	23.52%
4	61 – 68	64.5	10	29.41%
5	53 – 60	56.5	4	11.76%
6	45 – 52	48.5	2	5.88%
<i>I</i> = 8		-	34	100%

So, the frequency of students' score from 45 up to 52 was 1; 53 up to 60 was 4; 61 up to 68 was 10; 69 up to 76 was 8; 77 up to 84 was 6; 85 up to 91 was 4. The researcher presented them in histogram follow:



**Figure 3: Description of Post-test Experimental Class**

**a. Score of Post-Test Control Class**

The result that had been gotten by the students of control class in answering the question (test) after the researcher taught the writing by using conventional technique. The total score of control class in post-test was 2110, mean was 61.62, standard deviation was 10.48, variant was 88.05, median was 52.7, range was 40, modus was 55.5, and interval was 7. The researcher got the highest score was 80 and the lowest score was 40. It can be conclude into table follow:

**Table 11**  
**The Score of Control Class in Post-Test**

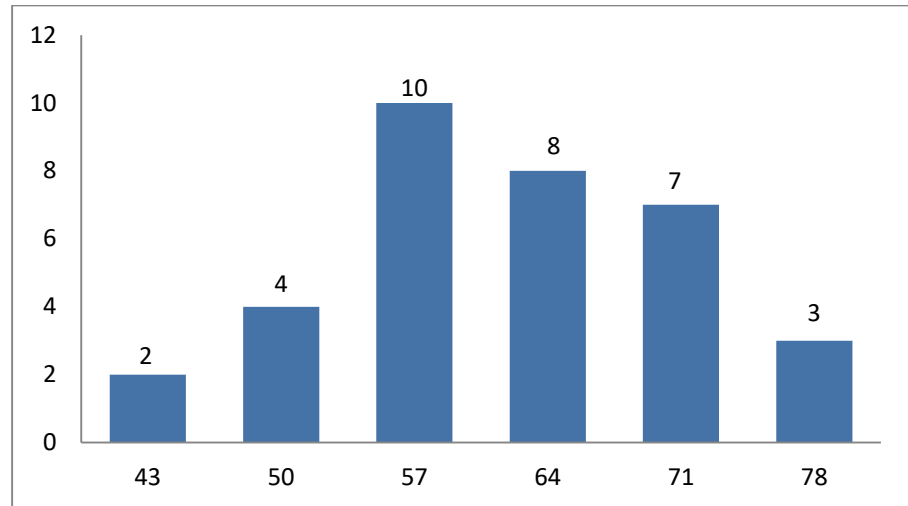
Total	2110
Highest score	80
Lowest score	40
Mean	61.62
Median	52.7
Modus	55.5
Range	40
Interval	7
Standard deviation	10.48
Variant	88.05

Then, the computed of the frequency distribution of the students' score of control class, it can be concluded that the middle interval (54–60) had the biggest frequency (10 students/ 29.41%). The highest interval (75–81) had 3 students and the lowest interval was (40 – 46 ) with 2 students. It can be applied into table frequency distribution as follow:

**Table 12**  
**Frequency Distribution of Control Class in Post-test**

No	Interval	Mid Point	Frequency	Percentages
1	75 – 81	78	3	8.82 %
2	68 – 74	71	7	20.60%
3	61 – 67	64	8	23.53%
4	54 – 60	57	10	29.41%
5	47 – 53	50	4	11.76%
6	40 – 46	43	2	5.88%
				100%

So the frequency of students' score from 40 up to 46 was 2; 47 up to 53 was 4; 54 up to 60 was 10; 61 up to 67 was 8; 68 up to 74 was 7; 75 up to 81 was 3. Then, the interval which had highest frequency was 54 - 60 (10 students) and the interval which had lowest frequency was 40 – 46 (2 students). For the clear description of the data, the researcher presents them in histogram follow :



**Figure 4: Description of Post-test Control Class**

## **B. Description of the Data Comparison between Pre-Test and Post-Test of Experimental and Control Class**

### **1. The Comparison Data between Pre-test and control and experimental class**

In pre test, the researcher did not apply treatment to experimental and control class. By giving pre test to both of classes, the researcher knew the students' ability in writing descriptive text before giving the treatment.

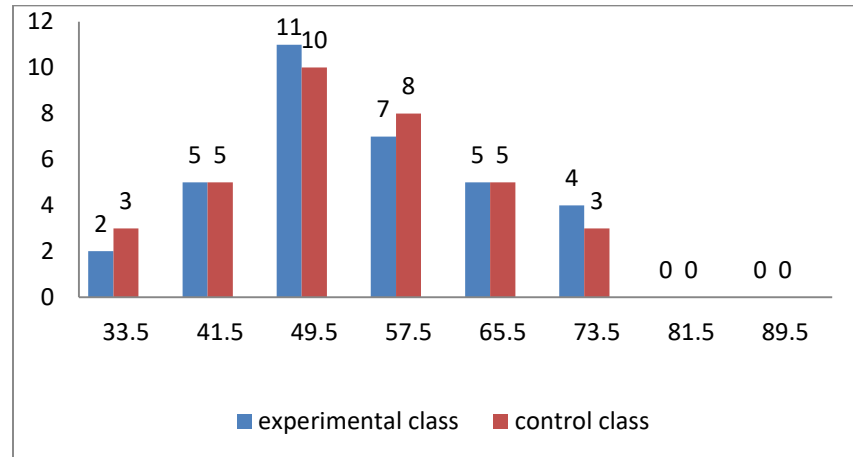
Based on the description data in pre test of experimental and control class, there was comparison score between pre-test experimental class before and after gave a treatment by using Outlining technique . It can be seen in the following table:



**Table 13**  
**The Comparison Score of Students' Writing Ability in Pre-test**  
**Experimental Class and Control Class**

Frequency				
No .	Interval	Mid Point	Experimental class	Control class
1	86 – 93	89.5	0	0
2	78 – 85	81.5	0	0
3	70 – 77	73.5	4	3
4	62 – 69	65.5	5	5
5	54 – 61	57.5	7	8
6	46 – 53	49.5	11	10
7	38 – 45	41.5	5	5
8	30 – 37	33.5	2	3

The frequency of mid points above is 33.5 there were 2 students of experimental class and 3 students of control class; on 41.5 there were 5 students of experimental class and 5 students of control class; on 49.5 there were 11 students of experimental class and 10 students of control class, on 57.5 experimental class were 7 students of experimental class and 8 of control class; on 65.5 there were 5 students of experimental class and 5 students of control class; and 73.5 there were 4 students of experimental class and 3 from control class. Then, the interval which had highest frequency in experimental class was 11 students and the interval which had lowest frequency there were 2 students. In control class of the interval which had highest frequency were 10 students and the interval which had lowest frequency were 3 students. It can be seen from this histogram follow:



**Figure 5. Histogram the Comparison Data of Students' Writing ability in Pre-test Experimental class and Control Class**

## **2. The Comparison Data between Pre- test and Post test of Control Class.**

The comparison data between pre-test and post-test by using conventional method. Based on the description data in pre-test and post-test of control class, there was the comparison score between pre-test control class before and after gave a treatment by using Conventional method. It can be seen in table below:

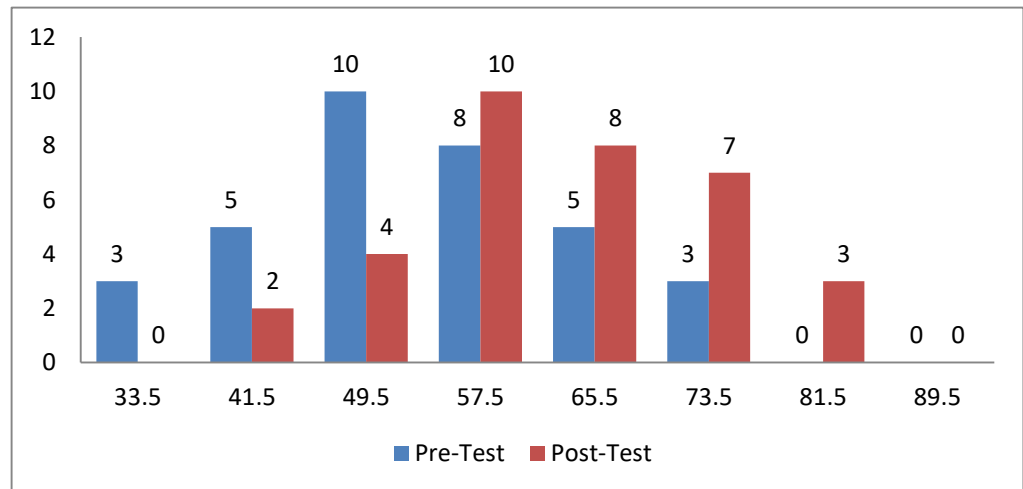
**Table 14**  
**The Comparison Score of Students' writing ability**  
**in Pre-test and Post-test Control Class**

Frequency				
No.	Interval	Mid point	Pre-test	Post- test
1	86 – 93	89.5	0	0
2	78 – 85	81.5	0	3
3	70 – 77	73.5	3	7
4	62 – 69	65.5	5	8
5	54 – 61	57.5	8	10
6	46 – 53	49.5	10	4
7	38 – 45	41.5	5	2
8	30 – 37	33.5	3	0

The frequency of mid points above is 33.5 there were 3 students of pretest and no from post-test, 41.5 (5 students) of pre-test and (2 students) of post-test. Mid points 49.5 (10 students) of pre-test and (4 students) of post-test. Mid points 57.5 (8 students) of pre-test and (10 students) of post-test, 65.5 (5 students) of pre-test and (8 students) of post-test. 73.5 (3 students) of pre-test and (7 students) of post-test, midpoint 81.5 there were 4 students of post-test and the last in mid points 89.5 no students of pretest and posttest.

Then, the interval which had highest frequency in pre test was 10 students and the interval which had lowest frequency was 2 students. In post-test of the interval which had highest frequency was 10 students and the interval which had lowest frequency was 2 students. For the clear

description of the data the researcher presents them in histogram on the following figure:



**Figure 6. Histogram the Comparison Data of Students' writing ability in Pre-test and Post-test (Control Class)**

### **3. The Comparison Data between Pre-test and Post-test by using brainstorming technique**

By giving pre test to both of classes (XI IPA 3 as experimental class and XI IPA 5 as control class), the researcher knew the students' ability in writing hortatory text before giving the treatment. In pre test, the researcher did not apply treatment to experimental and control class. After that, the researcher gave a treatment to both of classes, experimental class by using Brainstorming technique and control class by using Conventional technique. The researcher got the comparison data between post-test score

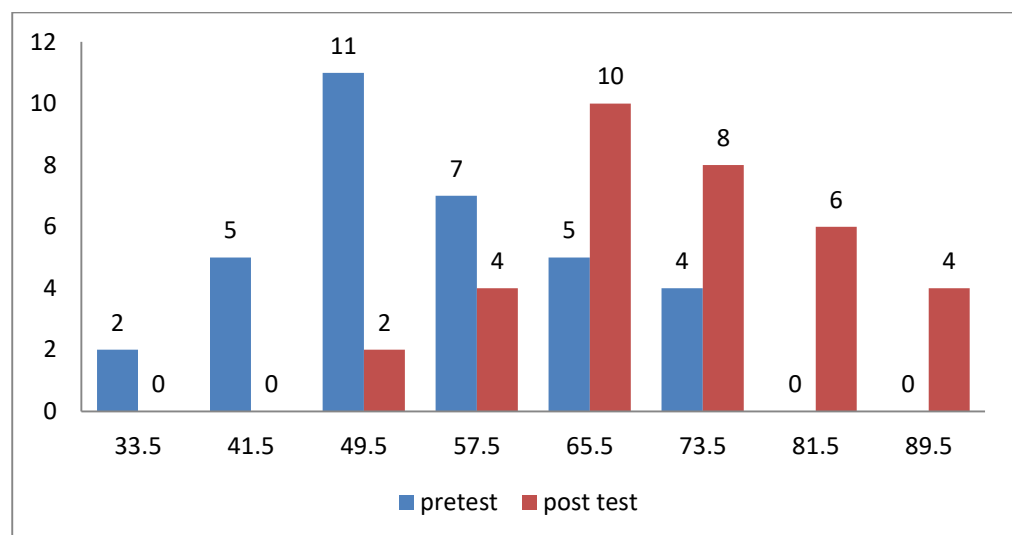
in experimental and control class after giving the treatment. The comparison data can be seen on the following table:

**Table 15**  
**The Comparison Score of Students' writing ability in Pre-test and Post-test Experimental Class**

Frequency				
No.	Interval	Mid Score	Pretest	Post-Test
1	86 – 93	89.5	0	4
2	78 – 85	81.5	0	6
3	70 – 77	73.5	4	8
4	62 – 69	65.5	5	10
5	54 – 61	57.5	7	4
6	46 - 53	49.5	11	2
7	38 – 45	41.5	5	0
	30 – 37	33.5	2	0

The frequency of mid points above is 33.5 there was 2 students of pre-test and no student of post-test, mid points 41.5 there was 5 students of pre-test and no student of post-test, mid points 49.5 there was 11 students of pre-test and 2 students of post-test, mid points 57.5 there was 7 students of pre-test and 4 students of post-test. Mid points 65.5 there were 5 students of pre-test and 10 students of post-test, mid points 73.5 there was 4 students of pre-test and 8 students of post-test, 81.5 there was no students of pre test and 6 students of post test, and the last mid points 89.5 there was no student of pre test and 4 students of post test.

Then, the interval which had highest frequency in pre test was 11 students and the interval which had lowest frequency were 2 students. In post-test of the interval which had highest frequency were 10 students and the interval which had lowest frequency were 2 students. Based on the description the data, researcher concluded them on histogram follow:



**Figure 7. Histogram the Comparison Data of writing ability in Pre-test and Post-test. (Experimental Class)**

#### **4. The Comparison Data between Post – test of Control Class by Conventional Method and Exprimental Class after Using Brainstorming Technique**

In pre- test, the researcher did not apply treatment to experimental and control class, but in post test, the researcher giving a treatment in experimental class. In control class by using Conventional Method and Experimental class by using brainstorming technique . It can be seen in table below:

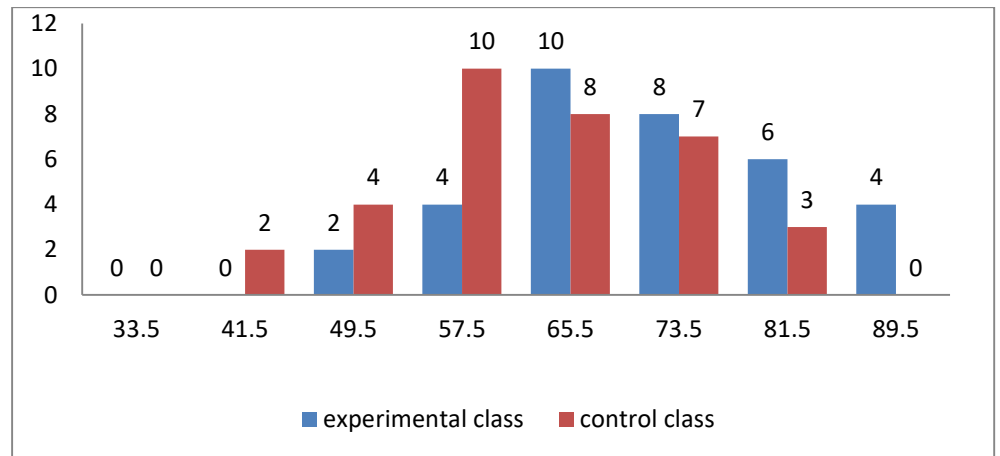
**Table 16**  
**The Comparison Score of Students' Writing Ability**  
**Control Class and Experimental in Post-test**

<b>Frequency</b>				
<b>No.</b>	<b>Interval</b>	<b>Mid Score</b>	<b>Experimental class</b>	<b>Control class</b>
1	86 – 93	89.5	4	0
2	78 – 85	81.5	6	3
3	70 – 77	73.5	8	7
4	62 – 69	65.5	10	8
5	54 – 61	57.5	4	10
6	46 - 53	49.5	2	4
7	38 – 45	41.5	0	2
	30 – 37	33.5	0	0

The frequency of mid points above is 33.5 there is no student, in 41.5 no student in experimental class and 2 students of control class, in 49.5 there were 2 students of experimental class and 4 of pretest, in 57.5 there was 4 students of experimental class and 10 of control class, in 65.5 there was 10 students of experimental class and 8 students of control class, in 73.5 there was 8 students of experimental class and 7 students of control class, 81.5 there was 6 students of experimental class and 3 students of control class and the last 89.5 there was 4 students of experimental class and no student of control class.

Then, the interval which had highest frequency in experimental class was 10 students and the interval which had lowest frequency was 2 students. In control class of the interval which had highest frequency was

10 students and the interval which had lowest frequency was 2 students. Based on the description the data, the interval could be seen the histogram on the following figure:



**Figure 8. The Comparison Score of Students' writing ability in Control Class and Experimental (Post-test)**

### C. Technique of Data Analysis

#### 1. Requirement Test

##### a. Normality and Homogeneity of Experimental and Control Class in Pre-Test

The score of experiment class  $Lo = -0.66 < Lt = 11.070$  with  $n = 34$  and control class  $Lo = -0.2 < Lt = 11.070$  with  $n = 34$ , and real level  $\alpha 0.05$ . Cause  $Lo < Lt$  in the both class. So,  $H_a$  was accepted. It means that experiment class and control class were distributed normal.

The coefficient of  $F_{count} = 1.06$  was compared with  $F_{table}$ . Where  $F_{table}$  was determined at real  $\alpha 0.05$ , and the different numerator  $dk =$



$N-1 = 34-1 = 33$  and denominator dk  $N-1 = 34-1 = 33$ . So, by using the list of critical value at F distribution is got  $F_{0.05} = 4.10$ . It showed that  $F_{count} 1.06 < F_{table} 4.14$ . It showed that both experimental and control class were homogeneous. The calculation can be seen in appendix 7.

The description of the data can be seen on this table follow:

**Table 17**  
**Normality and Homogeneity in Pre-Test**

Class	Normality Test		Homogeneity Test	
	$\chi^2_{count}$	$\chi^2_{table}$	$f_{count}$	$f_{table}$
Experimental Class	-0.66	11.07 0	1.06 < 4.14	
Control Class	-0.2	11.07 0		

**b. Normality and Homogeneity of Experimental and Control Class in Post-Test**

The previous table shows that the score of experimental class  $Lo = -0.53 < Lt = 11.070$  with  $n = 34$  and control class  $Lo = -1.1 < Lt = 11.070$  with  $n = 34$ , and real level  $\alpha 0.05$ . Because  $Lo < Lt$  in the both class, it means  $H_a$  was accepted. It meant that experiment class and control class were distributed normal. The calculation can be seen in appendix 8.

The coefficient of  $F_{count} = 1.43$  was compared with  $F_{table}$ . Where  $F_{table}$  was determined at real  $\alpha 0.05$ , and the different numerator dk =  $N-1 = 34-$

$t = 1.43$  and denominator  $dk = N - 1 = 34 - 1 = 33$ . So, by using the list of critical value at F distribution is got  $F_{0.05} = 4.10$ . It showed that  $F_{count} 1.43 < F_{table} 4.14$ . So, the researcher concluded that the variant from the data of the writing ability at XI grade of SMAN 3 Padangsidimpuan in experimental and control class was homogenous. The calculation can be seen on the appendix 10. The conclusion can be seen on this table below:

**Table 18**  
**Normality and Homogeneity in Post-Test**

Class	Normality Test		Homogeneity Test	
	$\chi^2_{count}$	$\chi^2_{table}$	$f_{count}$	$f_{table}$
Experimental Class	-0.53	11.070	1.43 < 4.14	
Control Class	-1.1	11.070		

#### D. Hypothesis Test

After calculating the data of post-test, researcher has found that post-test result of experimental and control class is normal and homogenous. The data would be analyzed to prove the hypothesis. It used formula of t-test. Hypothesis of the research was "Brainstorming Technique has significant effect on students' writing ability at XI grade of SMAN 3 Padangsidimpuan".

The test hypothesis have two criteria. First, if  $t_{count} < t_{table}$ ,  $H_0$  is accepted. Second,  $t_{count} > t_{table}$ ,  $H_a$  is accepted. Based on researcher calculation in pre test, researcher found that  $t_{count} -0.48$  while  $t_{table} 2.000$  with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 34 + 34 - 2 = 66$ . Cause  $t_{count} < t_{table}$  (-

0.48 < 2.000), it means that hypothesis  $H_a$  was rejected and  $H_0$  was accepted. So, in pre test, the two classes were same. There is no difference in the both classes. But, in post test, researcher found that  $t_{count}$  3. while  $t_{table}$  2.000 with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 34 + 34 - 2 = 66$ . Cause  $t_{count} > t_{table}$  (3.35 > 2.000), it means that hypothesis  $H_a$  was accepted and  $H_0$  was rejected. The calculation can be seen on the appendix 12. So, there was the significant effect of using Brainstorming technique on students' writing ability at XI grade of SMAN 3 Padangsidempuan.

The calculation can be seen on the appendix 11 and 12. The result of t-test was as follow:

**Table 19**  
**Result of T-test from the Both Averages**

<b>Pre-test</b>		<b>Post-test</b>	
$t_{count}$	$t_{table}$	$t_{count}$	$t_{table}$
-0.48	2.00	3.35	2.00

## **E. Discussion**

Brainstorming is a technique that can use to generate ideas for writing a paper. The goal of brainstorming is to generate ideas that help students to express their mind. The researcher discussed the result of this research with the theory that related to Brainstorming Technique. The theory has proven that this technique was good for students. Brainstorming helped the students

to generate their ideas, express the idea, creative thinking and it become a reference to write.

Based on the related finding, the researcher discussed the result of this research and compared with the related findings. First, the research of Semi Luxiana with title: “The Effect of Brainstorming Technique Toward Motivation in Writing Hortatory Exposition Text at Seond Year Students of SMAN 1 Pangkalan Lesung of Pelalawan Regency”. The result of the research can be seen from the increase of experimental class from 59.76% to 79.80% and contol class from 57.64% to 64.42%.<sup>1</sup>

Second, the research of Shela Rizkina With the title “The Effect Of Brainstoming Technique in Writing Descriptive Text at VIII Grade of MTsN Stabat Medan. The result of the research is that there was the mean of post-test in experimental class was 82.27 and controlled class was 75.07. Its mean there was significant effect of brainstorming technique in writing ability.<sup>2</sup>

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<sup>1</sup>Semi Luxiana, “The Effect of the Brainstorming Technique Toward Motivation in Writing Hortatory Exposition Text at Second Year Students of SMAN 1 Pangklan Lesung of Pelalawan Regency” (Pekanbaru: Faculty Of Education and Teacher Training State Islamic University of Sultan Syarif Kasim Riau, 2012) accessed from: *repository.uin-suska.ac.id* on July 02<sup>nd</sup> 2017 at 10.00 a.m.

<sup>2</sup> Shela Rizkina, “The Effect of Brainstoming Technique in Writing Desriptive Text at VIII Grade of MTsN Stabat” ( Medan: UIN Sumatera Utara, 2017) accessed from *repository.uinsu.ac.id* on 02<sup>nd</sup> July 2017 at 10.13 a.m

<sup>3</sup> Ernawati Gultom, “The Effect of Brainstorming Teaching Technique on Students’ Achievement in Writing Narrative Paragraph at Second Grade Students of SMA Swasta Raksana Medan” (Medan: Universitas Medan).accessed from *https://media.neliti.com* on 02<sup>nd</sup> July 2017 at 10.30 a.m

Third, Ernawati Gultom. Her research is The Effect o Brainstorming Teaching Technique on Students' Achievement in Writing Narative Paragraph at Second Grade of SMA Swasta Raksana Medan. It can be seen from the result of t-test calculation showed that t-observed is higher than t table :  $t\text{-obs} > t\text{-table}$  ( $5.51 > 1.684$ ). Its mean there was significant effect of brainstorming technique on students' achievement in writing narrative paragraph.<sup>3</sup>

From the result of the research that is previously stated, it was proved that the students of the experimental group who were taught writing by using Brainstorming technique got better result than the control group that were taught writing by using conventional technique.

#### **F. Limitation of the Research**

The research was limited in some situations. It was the problems in the class that appeared during doing the research, but the researcher couldn't hold or improve those things. The limitation of the research was as follow:

1. The researcher was not sure whether all of students in the experimental class and control class did the test honestly. There was a possibility that some of them answered the test by copying or imitating their friends' answer.

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<sup>3</sup>Ernawati Gultom, "The Effect of Brainstorming Teaching Technique on Students' Achievement in Writing Narrative Paragraph at Second Grade Students of SMA Swasta Raksana Medan" (Medan: Universitas Medan).accessed from <https://media.neliti.com> on 02<sup>nd</sup> July 2017 at 10.30 a.m

2. The students were noisy while in learning process. They were not concentrating in following the learning process. Some of them talked to their friends and some of them did something outside the teacher's rule. Of course it made them can't get the teacher's explanation well and gave the impact to the post-test answer.
3. It was also a possibility that some of students were not too serious in answering the pre-test and post-test. It may caused by the test, because they knew before that the test would not influence their score in the school. It made them answer the test without thinking hard and the answer of the test was not pure because they did not do it seriously.



## CHAPTER IV

### THE RESEARCH RESULT

To analyze the data, the researcher has collected data through pre test and post test in the both classes, experimental class and control class. To find out the effect of using Brainstorming Technique on the students' Writing ability, the researcher has calculated the data by using quantitative analysis. The researcher used the formulation of t-test to test the hypothesis. Next, the researcher described the data as follow:

#### A. Description of Data

##### 1. Description of Data before Using Brainstorming Technique

###### a. Description data of Pre-test Experimental Class

As the experimental class, the researcher took class XI IPA 3. Based on students' answers in pre-test the researcher has calculated the students' score in appendix 5 the total score of experimental class in pre-test was 1825, mean was 54.4, median was 46.22, modus was 48.7, range was 45, interval was 8, standard deviation was 10.88, and variant was 117.13 The researcher got the highest score was 75 and the lowest score was 30.

**Table 4**  
**The Score of Experimental Class in Pre-test**

Total	1825
Highest score	75
Lowest score	30



Mean	54.4
Median	46.22
Modus	48.7
Range	45
Interval	8
Standard deviation	10.88
Variant	117.13

From the table below, it can be concluded that the most students are in interval 46 – 53 (11 students/32.35%). The least of students is 30-37 (2 tudents/6.23%).

**Table 5**  
**Frequency Distribution of Experimental Class (Pre-test)**

No	Interval	Mid Point	F	Percentages
1	30-37	33.5	2	5.88%
2	38-45	41.5	5	14.71%
3	46-53	49.5	11	32.35%
4	54-61	57.5	7	20.59%
5	62-69	65.5	5	11.71%
6	70-77	73.5	4	11.76%
I=8				100%

Clear description of the data is presented in histogram. Based on the figure above, the frequency of students' score from 30 up to 37 was 2; 38 up to 45 was 5; 46 up to 53 was 11; 54 up to 61 was 7; 62 up to 69 was 5; 70 up to 77 was 4. The histogram shows that the highest interval (70 - 77) was 4 students, and the lowest interval (30-37) was 2 students.

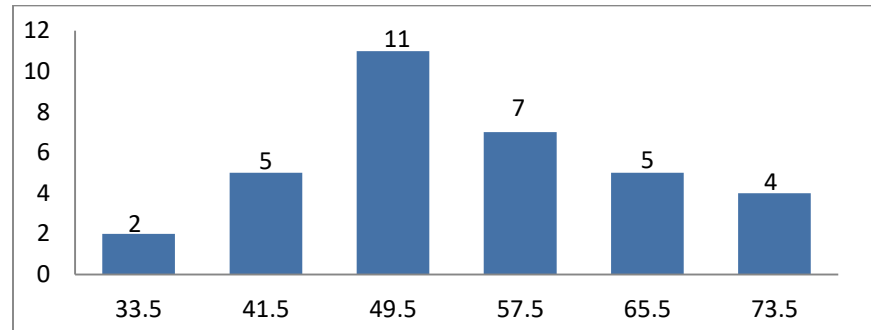


Figure 1: Description of Pre-test of Experimental class

### b. Score of Pre-Test Control Class

In pre-test of control class, the researcher calculated the result that had been gotten by the students in answering question. The result of this class was the total score of control class in pre-test was 1895, mean was 55.29, standard deviation was 10.78, variants was 110.81, range was 40, interval was 7, median was 49.2 and modus was 50.53. The researcher got the highest score was 75 and the lowest score was 35. Researcher describes the result on the table below:

**Table 6**  
**The Score of Control Class in Pre-Test**

Total	1895
Highest score	75
Lowest score	35
Mean	55.29
Median	49.2
Modus	50.53
Range	40
Interval	7
Standard deviation	10.78
Variant	110.81

Then, the calculation of the frequency distribution of the students' score of control class was the middle interval (56 – 62) had the biggest frequency (10 students/29.41%). The highest interval (75-81) had 5 students and the lowest interval was (40 – 46) with 2 students. It can be applied into table frequency distribution as follow:

**Table 6**

No	Interval	Mid Point	Frequency	Percentages
1	70 – 76	73	3	8.82%
2	63 – 69	66	5	14.71%
3	56 – 62	59	8	23.53%
4	49 – 55	52	10	29.41%
5	42 – 48	45	5	14.71%
6	35 – 41	38	3	8.82%
	I=7			100%

Based on the figure below, the frequency of students' score from 35 up to 41 was 3; 42 up to 48 was 5; 49 up to 55 was 10; 56 up to 62 was 8; 63 up to 69 was 5; 70 up to 76 was 3.

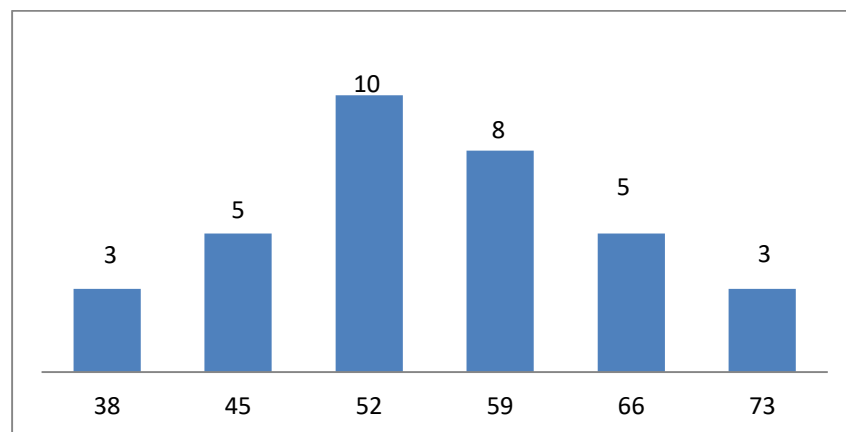


Figure 2: Description of Pre-test control class.

## 2. Description of Data After Using Brainstorming Technique

### 1. Score of Post-Test Experimental Class

The calculation of the result that had been gotten by the students in answering the question (test) after the researcher did the treatment by using Outlining technique. The total score of experiment class in post-test was 2390, mean was 70.1, standard deviation was 10.88, variant was 125.66, median was 59.7, range was 45, modus was 62.5, and interval was 8. The students' highest score was 90 and the lowest score was 45. It can be seen from the table follow:

**Table 7**  
**The Score of Experimental Class in Post Test**

Total	2390
Highest score	90
Lowest score	45
Mean	70.1
Median	59.7
Modus	62.5
Range	45
Interval	8
Standard deviation	10.88
Variant	125.66

Then, the calculation of the frequency distribution of the students' score of experiment class can be concluded that the middle interval (61–68) had the biggest frequency (10 students/29.41%). The highest interval (85–92) had 4 students and the lowest interval was (45 – 52)

with 2 students. It can be applied into table frequency distribution as follow:

**Table 8**  
**Frequency Distribution of Students' Score**

No	Interval	Mid Point	Frequency	Percentages
1	85 – 92	88.5	4	11.76%
2	77 – 84	80.5	6	17.64%
3	69 – 76	72.5	8	23.52%
4	61 – 68	64.5	10	29.41%
5	53 – 60	56.5	4	11.76%
6	45 – 52	48.5	2	5.88%
<i>I</i> = 8		-	34	100%

So, the frequency of students' score from 45 up to 52 was 1; 53 up to 60 was 4; 61 up to 68 was 10; 69 up to 76 was 8; 77 up to 84 was 6; 85 up to 91 was 4. The researcher presented them in histogram follow:

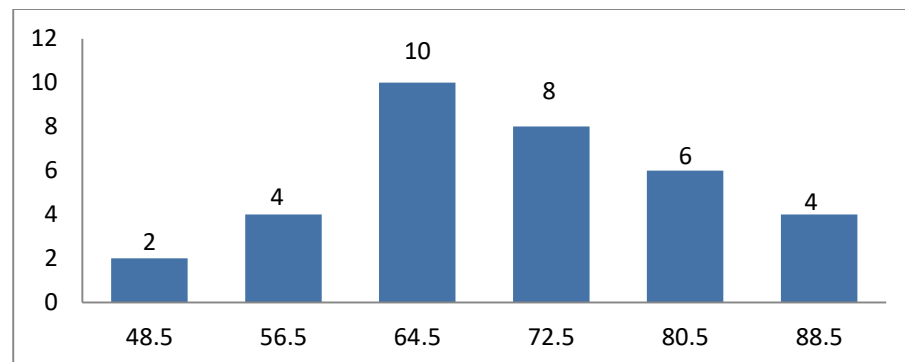


Figure 3: Description of Posttest experimental class

#### a. Score of Post-Test Control Class

The result that had been gotten by the students of control class in answering the question (test) after the researcher taught the writing by using conventional technique. The total score of control class in post-

test was 2110, mean was 61.62, standard deviation was 10.48, variant was 88.05, median was 52.7, range was 40, modus was 55.5, and interval was 7. The researcher got the highest score was 80 and the lowest score was 40. It can be conclude into table follow:

**Table 9**  
**The Score of Control Class in Post-Test**

Total	2110
Highest score	80
Lowest score	40
Mean	61.62
Median	52.7
Modus	55.5
Range	40
Interval	7
Standard deviation	10.48
Variant	88.05

Then, the computed of the frequency distribution of the students' score of control class, it can be concluded that the middle interval (54–60) had the biggest frequency (10 students/ 29.41%). The highest interval (75–81) had 3 students and the lowest interval was (40 – 46 ) with 2 students. It can be applied into table frequency distribution as follow:

**Table 10**  
**Frequency Distribution of Students' Score**

No	Interval	Mid Point	Frequency	Percentages
1	75 – 81	78	3	8.82 %
2	68 – 74	71	7	20.60%
3	61 – 67	64	8	23.53%
4	54 – 60	57	10	29.41%

5	47 – 53	50	4	11.76%
6	40 – 46	43	2	5.88%
				100%

So the frequency of students' score from 40 up to 46 was 2; 47 up to 53 was 4; 54 up to 60 was 10; 61 up to 67 was 8; 68 up to 74 was 7; 75 up to 81 was 3. Then, the interval which had highest frequency was 54 - 60 (10 students) and the interval which had lowest frequency was 40 – 46 (2 students). For the clear description of the data, the researcher presents them in histogram follow :

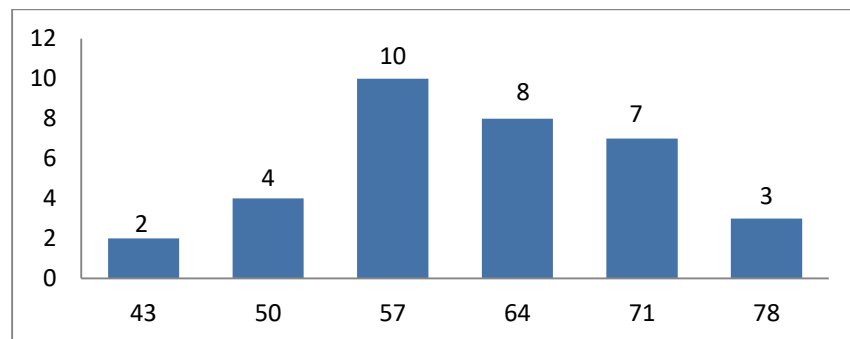


Figure 4: Description of posttest control class

## **B. Description of the Data Comparison between Pre-Test and Post-Test of Experimental and Control Class**

### **1. The Comparison Data between Pre-test and control and experimental class**

In pre test, the researcher did not apply treatment to experimental and control class. By giving pre test to both of classes, the researcher knew the students' ability in writing descriptive text before giving the treatment.

Based on the description data in pre test of experimental and control class, there was comparison score between pre-test experimental class before and after gave a treatment by using Outlining technique . It can be seen in the following table:

**Table 11**  
**The Comparison Score of Students' Writing Hortatory Exposition text in Pre-test Experimental class and Control class**

Frequency				
No .	Interval	Mid Point	Experimental class	Control class
1	86 – 93	89.5	0	0
2	78 – 85	81.5	0	0
3	70 – 77	73.5	4	3
4	62 – 69	65.5	5	5
5	54 – 61	57.5	7	8
6	46 – 53	49.5	11	10
7	38 – 45	41.5	5	5
8	30 – 37	33.5	2	3

The frequency of mid points above is 33.5 there were 2 students of experimental class and 3 students of control class; on 41.5 there were 5 students of experimental class and 5 students of control class; on 49.5 there were 11 students of experimental class and 10 students of control class, on 57.5 experimental class were 7 students of experimental class and 8 of control class; on 65.5 there were 5 students of experimental class and 5



students of control class; and 73.5 there were 4 students of experimental class and 3 from control class. Then, the interval which had highest frequency in experimental class was 11 students and the interval which had lowest frequency there were 2 students. In control class of the interval which had highest frequency were 10 students and the interval which had lowest frequency were 3 students. It can be seen from this histogram follow:

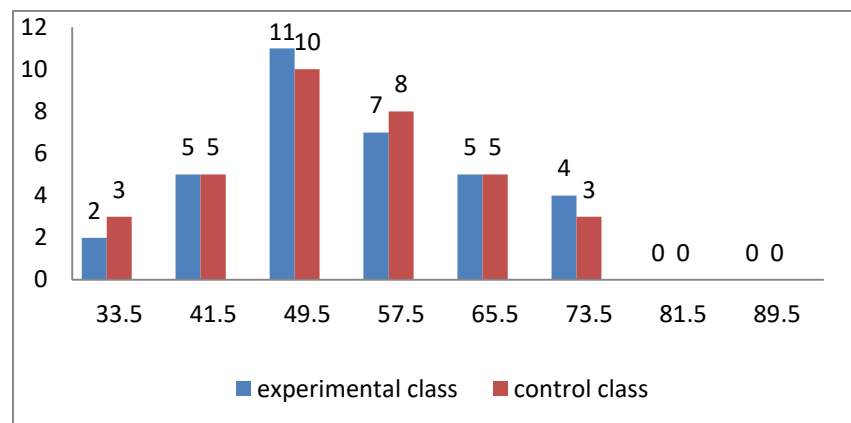


Figure 6. Histogram the Comparison Data of Students' Writing ability in Pre-test Experimental class and Control Class

## 2. The Comparison Data between Pre- test and Post test of Control Class.

The comparison data between pre-test and post-test by using conventional method. Based on the description data in pre-test and post-test of control class, there was the comparison score between pre-test

control class before and after gave a treatment by using Conventional method. It can be seen in table below:

**Table 12**  
**The Comparison Score of Students' writing ability**  
**in Pre-test and Post-test (Control Class)**

Frequency				
No.	Interval	Mid point	Pre-test	Post- test
1	86 – 93	89.5	0	0
2	78 – 85	81.5	0	3
3	70 – 77	73.5	3	7
4	62 – 69	65.5	5	8
5	54 – 61	57.5	8	10
6	46 – 53	49.5	10	4
7	38 – 45	41.5	5	2
8	30 – 37	33.5	3	0

The frequency of mid points above is 33.5 there were 3 students of pretest and no from post-test, 41.5 (5 students) of pre-test and (2 students) of post-test. Mid points 49.5 (10 students) of pre-test and (4 students) of post-test. Mid points 57.5 (8 students) of pre-test and (10 students) of post-test, 65.5 (5 students) of pre-test and (8 students) of post-test. 73.5 (3 students) of pre-test and (7 students) of post-test, midpoint 81.5 there were 4 students of post-test and the last in mid points 89.5 no students of pretest and posttest.

Then, the interval which had highest frequency in pre test was 10 students and the interval which had lowest frequency was 2 students. In

post-test of the interval which had highest frequency was 10 students and the interval which had lowest frequency was 2 students. For the clear description of the data the researcher presents them in histogram on the following figure:

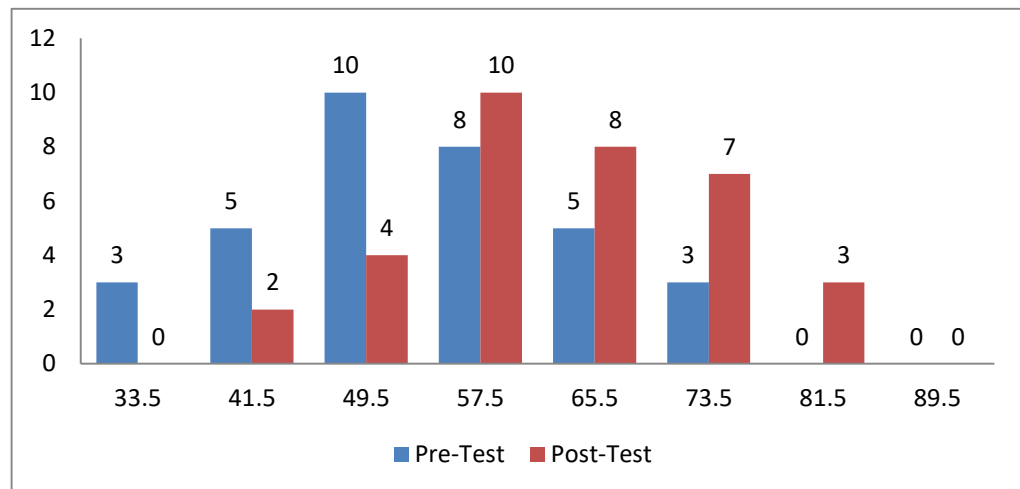


Figure 6. Histogram the Comparison Data of Students' writing ability in Pre-test and Post-test (Control Class)

### 3. The Comparison Data between Pre-test and Post-test by using brainstorming technique

By giving pre test to both of classes (XI IPA 3 as experimental class and XI IPA 5 as control class), the researcher knew the students' ability in writing hortatory text before giving the treatment. In pre test, the researcher did not apply treatment to experimental and control class. After

that, the researcher gave a treatment to both of classes, experimental class by using Brainstorming technique and control class by using Conventional technique. The researcher got the comparison data between post-test score in experimental and control class after giving the treatment. The comparison data can be seen on the following table:

**Table 13**  
**The Comparison Score of Students' writing ability in Pre-test and Post-test (Experimental Class)**

No.	Interval	Mid Score	Frequency	
			Pretest	Post-Test
1	86 – 93	89.5	0	4
2	78 – 85	81.5	0	6
3	70 – 77	73.5	4	8
4	62 – 69	65.5	5	10
5	54 – 61	57.5	7	4
6	46 - 53	49.5	11	2
7	38 – 45	41.5	5	0
	30 – 37	33.5	2	0

The frequency of mid points above is 33.5 there was 2 students of pre-test and no student of post-test, mid points 41.5 there was 5 students of pre-test and no student of post-test, mid points 49.5 there was 11 students of pre-test and 2 students of post-test, mid points 57.5 there was 7 students of pre-test and 4 students of pos-test. Mid points 65.5 there were 5 students of pre-test and 10 students of post-test, mid points 73.5 there was 4 students of pre-test and 8 students of post-test, 81.5 there was no

students of pre test and 6 students of post test, and the last mid points 89.5 there was no student of pre test and 4 students of post test.

Then, the interval which had highest frequency in pre test was 11 students and the interval which had lowest frequency were 2 students. In post-test of the interval which had highest frequency were 10 students and the interval which had lowest frequency were 2 students. Based on the description the data, researcher concluded them on histogram follow:

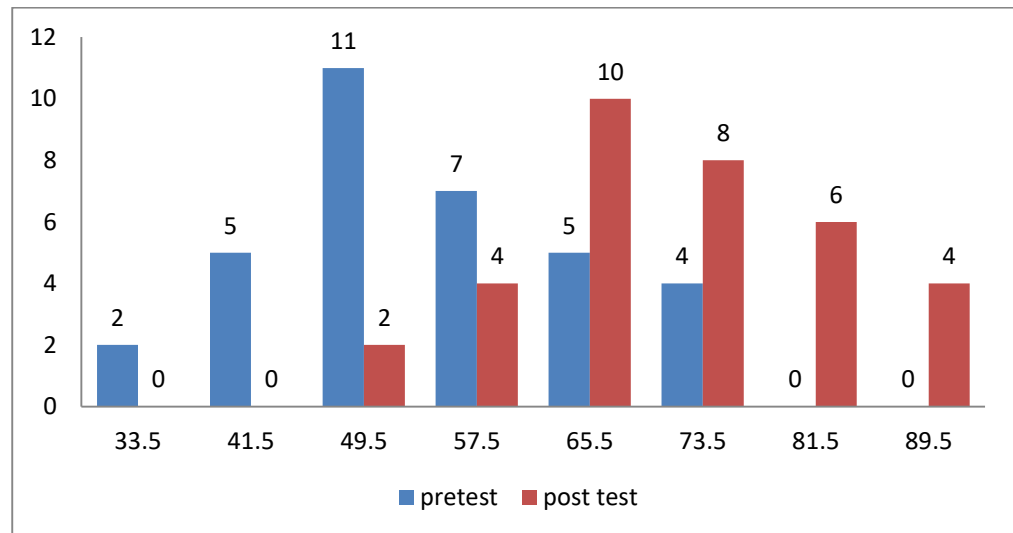


Figure 7. Histogram the Comparison Data of writing ability in Pre-test and Post-test. (Experimental Class)

#### 4. The Comparison Data between Post – test of Control Class by Conventional Method and Exprimental Class after Using Brainstorming Technique

In pre- test, the researcher did not apply treatment to experimental and control class, but in post test, the researcher giving a treatment in experimental class. In control class by using Conventional Method and

Experimental class by using brainstorming technique . It can be seen in table below:

**Table 14. The Comparison Score of Students' writing ability in Control Class and Experimental (Post-test)**

No.	Interval	Mid Score	Frequency	
			Experimental class	Control class
1	86 – 93	89.5	4	0
2	78 – 85	81.5	6	3
3	70 – 77	73.5	8	7
4	62 – 69	65.5	10	8
5	54 – 61	57.5	4	10
6	46 - 53	49.5	2	4
7	38 – 45	41.5	0	2
	30 – 37	33.5	0	0

The frequency of mid points above is 33.5 there is no student, in 41.5 no student in experimental class and 2 students of control class, in 49.5 there were 2 students of experimental class and 4 of pretest, in 57.5 there was 4 students of experimental class and 10 of control class, in 65.5 there was 10 students of experimental class and 8 students of control class, in 73.5 there was 8 students of experimental class and 7 students of control class, 81.5 there was 6 students of experimental class and 3 students of control class and the last 89.5 there was 4 students of experimental class and no student of control class.

Then, the interval which had highest frequency in experimental class was 10 students and the interval which had lowest frequency was 2 students. In control class of the interval which had highest frequency was 10 students and the interval which had lowest frequency was 2 students. Based on the description the data, the interval could be seen the histogram on the following figure:

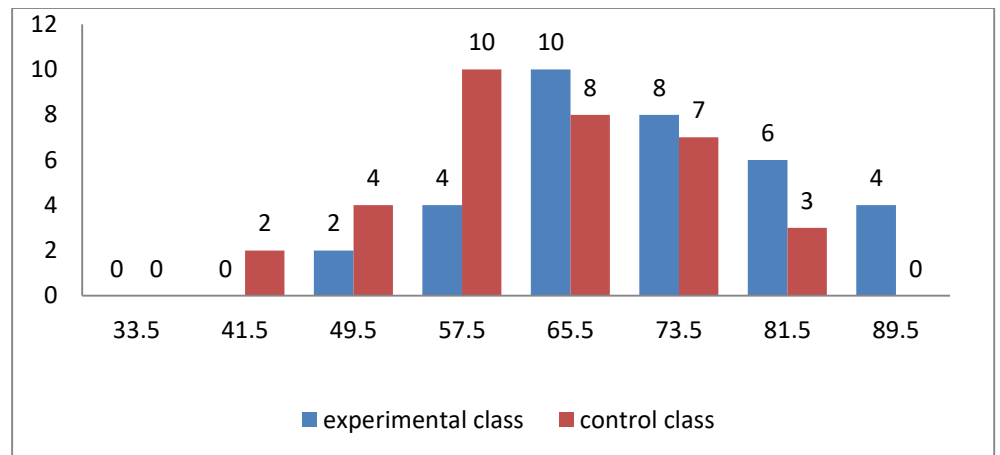


Figure 8: The Comparison Score of Students' writing ability in Control Class and Experimental (Post-test)

## C. Technique of Data Analysis

### 1. Requirement Test

#### a. Normality and Homogeneity of Experimental and Control Class in Pre-Test

The score of experiment class  $Lo = -0.66 < Lt = 11.070$  with  $n = 34$  and control class  $Lo = -0.2 < Lt = 11.070$  with  $n = 34$ , and real level  $\alpha 0.05$ . Cause  $Lo < Lt$  in the both class. So,  $H_a$  was accepted. It means that experiment class and control class were distributed normal.

The coefficient of  $F_{count} = 1.06$  was compared with  $F_{table}$ . Where  $F_{table}$  was determined at real  $\alpha 0.05$ , and the different numerator  $dk = N-1 = 34-1 = 33$  and denominator  $dk N-1 = 34-1 = 33$ . So, by using the list of critical value at F distribution is got  $F_{0.05} = 4.10$ . It showed that  $F_{count} 1.06 < F_{table} 4.14$ . It showed that both experimental and control class were homogeneous. The calculation can be seen in appendix 7.

The description of the data can be seen on this table follow:

**Table 14**  
**Normality and Homogeneity in Pre-Test**

Class	Normality Test		Homogeneity Test	
	$X^2_{count}$	$X^2_{table}$	$f_{count}$	$f_{table}$
Experimental Class	-0.66	11.07 0	1.06 < 4.14	
Control Class	-0.2	11.07 0		

**b. Normality and Homogeneity of Experimental and Control Class in Post-Test**

The previous table shows that the score of experimental class  $Lo = -0.53 < Lt = 11.070$  with  $n = 34$  and control class  $Lo = -1.1 < Lt =$



11.070 with  $n = 34$ , and real level  $\alpha 0.05$ . Because  $L_o < L_t$  in the both class, it means  $H_a$  was accepted. It meant that experiment class and control class were distributed normal. The calculation can be seen in appendix 8.

The coefficient of  $F_{count} = 1.43$  was compared with  $F_{table}$ . Where  $F_{table}$  was determined at real  $\alpha 0.05$ , and the different numerator  $dk = N - 1 = 34 - 1 = 33$  and denominator  $dk N - 1 = 34 - 1 = 33$ . So, by using the list of critical value at F distribution is got  $F_{0.05} = 4.10$ . It showed that  $F_{count} 1.43 < F_{table} 4.14$ . So, the researcher concluded that the variant from the data of the writing ability at XI grade of SMAN 3 Padangsidempuan in experimental and control class was homogenous. The calculation can be seen on the appendix 10. The conclusion can be seen on this table below:

**Table 15**  
**Normality and Homogeneity in Post-Test**

Class	Normality Test		Homogeneity Test	
	$X^2_{count}$	$X^2_{table}$	$f_{count}$	$f_{table}$
Experimental Class	-0.53	11.070	1.43 < 4.14	
Control Class	-1.1	11.070		

#### D. Hypothesis Test

After calculating the data of post-test, researcher has found that post-test result of experimental and control class is normal and homogenous. The data would be analyzed to prove the hypothesis. It used formula of t-test.

Hypothesis of the research was “Brainstorming Technique has significant effect on students’ writing ability at XI grade of SMAN 3 Padangsidimpuan”.

The test hypothesis have two criteria. First, if  $t_{count} < t_{table}$ ,  $H_0$  is accepted. Second,  $t_{count} > t_{table}$ ,  $H_a$  is accepted. Based on researcher calculation in pre test, researcher found that  $t_{count} -0.48$  while  $t_{table} 2.000$  with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 34 + 34 - 2 = 66$ . Cause  $t_{count} < t_{table} (-0.48 < 2.000)$ , it means that hypothesis  $H_a$  was rejected and  $H_0$  was accepted. So, in pre test, the two classes were same. There is no difference in the both classes. But, in post test, researcher found that  $t_{count} 3$ . while  $t_{table} 2.000$  with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 34 + 34 - 2 = 66$ . Cause  $t_{count} > t_{table} (3.35 > 2.000)$ , it means that hypothesis  $H_a$  was accepted and  $H_0$  was rejected. The calculation can be seen on the appendix 12. So, there was the significant effect of using Brainstorming technique on students’ writing ability at XI grade of SMAN 3 Padangsidimpuan.

The calculation can be seen on the appendix 11 and 12. The result of t-test was as follow:

**Table 16**  
**Result of T-test from the Both Averages**

Pre-test		Post-test	
$t_{count}$	$t_{table}$	$t_{count}$	$t_{table}$
-0.48	2.00	3.35	2.00

## E. Discussion

Brainstorming is a technique that can use to generate ideas for writing a paper. The goal of brainstorming is to generate ideas that help students to express their mind. The researcher discussed the result of this research with the theory that related to Brainstorming Technique. The theory has proven that this technique was good for students. Brainstorming helped the students to generate their ideas, express the idea, creative thinking and it become a reference to write.

Based on the related finding, the researcher discussed the result of this research and compared with the related findings. First, the research of Semi Luxiana with title: “The Effect of Brainstorming Technique Toward Motivation in Writing Hortatory Exposition Text at Seond Year Students of SMAN 1 Pangkalan Lesung of Pelalawan Regency”. The result of the research can be seen from the increase of experimental class from 59.76% to 79.80% and contol class from 57.64% to 64.42%.<sup>1</sup>

Second, the research of Shela Rizkina With the title “The Effect Of Brainstomining Technique in Writing Descriptive Text at VIII Grade of MTsN Stabat Medan. The result of the research is that there was the mean of post-test in experimental class was 82.27 and controlled class was 75.07. Its

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<sup>1</sup>Semi Luxiana, “The Effect of the Brainstorming Technique Toward Motivation in Writing Hortatory Exposition Text at Second Year Students of SMAN 1 Pangklan Lesung of Pelalawan Regency” (Pekanbaru: Faculty Of Education and Teacher Training State Islamic University of Sultan Syarif Kasim Riau, 2012) accessed from: *repository.uin-suska.ac.id* on July 02<sup>nd</sup> 2017 at 10.00 a.m.

mean there was significant effect of brainstorming technique in writing ability.<sup>2</sup>

Third, Ernawati Gultom. Her research is The Effect o Brainstorming Teaching Technique on Students' Achievement in Writing Narative Paragraph at Second Grade of SMA Swasta Raksana Medan. It can be seen from the result of t-test calculation showed that t-observed is higher than t table :  $t\text{-obs} > t\text{-table}$  ( $5.51 > 1.684$ ). Its mean there was significant effect of brainstorming technique on students' achievement in writing narrative paragraph.<sup>3</sup>

From the result of the research that is previously stated, it was proved that the students of the experimental group who were taught writing by using Brainstorming technique got better result than the control group that were taught writing by using conventional technique.

## **F. Limitation of the Research**

The research was limited in some situations. It was the problems in the class that appeared during doing the research, but the researcher couldn't hold or improve those things. The limitation of the research was as follow:

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<sup>2</sup> Shela Rizkina, "The Effect of Brainstoming Technique in Writing Desriptive Text at VIII Grade of MTsN Stabat" ( Medan: UIN Sumatera Utara, 2017) accessed from *repository.uinsu.ac.id* on 02<sup>nd</sup> July 2017 at 10.13 a.m

<sup>8</sup> Ernawati Gultom, "The Effect of Brainstorming Teaching Technique on Students' Achievement in Writing Narrative Paragraph at Second Grade Students of SMA Swasta Raksana Medan" (Medan: Universitas Medan).accessed from *https://media.neliti.com* on 02<sup>nd</sup> July 2017 at 10.30 a.m

1. The researcher was not sure whether all of students in the experimental class and control class did the test honestly. There was a possibility that some of them answered the test by copying or imitating their friends' answer.
2. The students were noisy while in learning process. They were not concentrating in following the learning process. Some of them talked to their friends and some of them did something outside the teacher's rule. Of course it made them can't get the teacher's explanation well and gave the impact to the post-test answer.
3. It was also a possibility that some of students were not too serious in answering the pre-test and post-test. It may caused by the test, because they knew before that the test would not influence their score in the school. It made them answer the test without thinking hard and the answer of the test was not pure because they did not do it seriously.

## CHAPTER V

### CONCLUSION AND SUGGESTION

#### A. Conclusion

The scores of students' writing ability before using Brainstorming technique at XI grade of SMAN 3 Padangsidempuan was 54.14 of experimental class was and the mean score of control class was 55.29 with conventional method. After using Brainstorming technique, the mean score of experimental class was 70.1 and the mean score of control class 61.62 by using conventional method, its mean there were increasing in students' score in the both classes if it was compared with the result of pre-test. Then, the mean score of experimental class was bigger than control class ( $70.1 > 61.62$ ).

The result of research showed that the students' score in the experimental class was higher than control class. Eventhough it was not a high difference, the result prove that  $t_0$  was higher than  $t_t$ .  $t_0$  was 3.35 and  $t_t$  was 2.000 ( $3.35 > 2.000$ ). It means that there was the effect of using Brainstorming technique on students' writing ability at XI grade of SMAN 3 Padangsidempuan. So, the hypothesis ( $H_a$ ) was accepted.

#### B. Suggestion

After finishing the research, the reseracher got many informations in English teaching and learning. Therefore, from that experience, the researcher saw some things need to be improved. It makes the researcher give some suggestions.

First, English teacher should be creative to using interesting technique in teaching learning process. In addition, brainstorming technique can be used as an alternative of teaching writing.

Secondly, the students should be more practice to used brainstorming technique when they write text in order to increase their ability in writing, although the teacher didn't use this technique.

Finally, for the writer, brainstorming technique as a reference to further or other classroom action research more paying attention in the efficiency of time.

## REFERENCES

- Abdullahi Naser, *The Effect of Using Brainstorming Technique in Developing Creative Problem Solving Skill among male Students in Kuwait*, *Journal of Education and Practice* Vol 6, No.3, 2015, accessed from [www.iiste.org](http://www.iiste.org) on 23 May 2017 at 107.00 p.m.
- Agus Irianto, *Statistik Konsep Dasar dan Aplikasinya* Padang: P2LPTK Departemen Pendidikan Nasional, 2003
- Alan Meyers, *Gateways Academic Writing, Effectives Sentence, Paragraph and Essays*  
Longman, 2005
- Oshima, Alice and Ann Hogue and, *Writing Academic English(Fourth Edition)*, Pearson Education, 2006
- Anas Sudjiono, *Pengantar Statistik Pendidikan Jakarta*: PT. Raja Grafindo Persada, 2005
- A.S. Hornby, *Oxford Learner's Pocket Dictionary* New York: Oxford University Press, 2000
- Bilal Adel Al-khatib, *Effect of Using Brainstorming Strategy in Developing Creative Problem Skills among Female Students in Princess Alia University Collage*, *American Internasional Journal of Contemporary Research* Vol.2 No.10; October 2012, accessed from [www.aijcrnet.com](http://www.aijcrnet.com) on 20 May 2017 at 08.00 p.m.
- Nunan, David., *Practical English Language Teaching*, New York: McGraw-Hill, 2003



Brown, H. Douglas, *Teaching by Principles*: San Francisco State University, 1994

Gultom, Ernawati., *The Effect of Brainstorming Teaching Technique on Students' Achievement in Writing Narrative Paragraph at Second Grade Students of SMA Swasta Raksana Medan*, Medan: Universitas Medan accessed from <https://media.neliti.com> on July 02nd 2017 at 10.30 a.m.

Geoffrey, at all., *Teaching English as a Foreign Language* (2nd edition), New York: Routledge, 2003

Hesti Wijaya and Hadrian Priangga Puti, *Using KWL Strategy to Improve The Reading Comprehension Skill on Hortatory Exposition Texts*, University of Muhammadiyah Yogyakarta: 2015, accessed on <http://media.neliti.com> on 12 Juny 2017 at 11.21 a.m

Hartono, *Statistik Untuk Penelitian* Yogyakarta: Pustaka Pelajar , 2004

Ibnu Hadjar, *Dasar-Dasar Metodologi Penelitian Kuantitatif dalam Pendidikan* Jakarta: PT Raja Grafindo Persada, 1999

J.B. Heaton, *Writing English Language* London: Longman, 1975

John Lagan, *College Writing Skills, Media Edition (5th Edition)*, USA: McGraw Hill, 2003

Gay, L.R & Peter Airasian, *Educational Research for Analysis and Application* America : Prentice Hall, 1992

Mirlohi Mehdi, *The effect of Instruction on Writing Performance of Intermediate EFL Persian Students*, International Journal of Linguistics Vol.4 No. 4 2012, Sheikhabaee University Iran : 2012, accessed from [www.macrothink.org/ijil](http://www.macrothink.org/ijil) on 29 May 2017 at 04.03 p.m.

Geraldine Monitha, *Teaching Writing Hortatory Exposition Text Through Task-Based Language Teaching (TBLT)*, accessed from <http://media.neliti.com> retrieved on February 02nd 2017 at 09.00 a.m.

Northern Illinois University, Brainstorming: Faculty Development and Instructional Design Center)

*Purpose for Writing pdf*, accessed from <http://sites.newpaltz.edu> on 10 Juny 2017 at 03.40 p.m.

Rahmad Husein, and Anni Holila Pulungan, *Sumber Belajar Penunjang Plpg 2017 Mata Pelajaran/Paket Keahlian bahasa Inggris Hortatory Exposition Text*, Kementerian Pendidikan Dan Kebudayaan direktorat Jenderal Guru Dan Tenaga Kependidikan, 2017

Roestiyah N.K., *Strategi Belajar Mengajar*, Jakarta: Rineke Cipta, 2001

Ibranian, Salem Saleh Khalaf,. *Brainstorming and Essay Writing in EFL Class* Finland Academic Publisher, 2011

Luxiana Semi,. *The Effect of the Brainstorming Technique Toward Motivation in Writing Hortatory Exposition Text at Second Year Students of SMAN 1 Pangklan Lesung of Pelalawan Regency*, Pekanbaru: Faculty Of Education and

Teacher Training State Islamic University of Sultan Syarif Kasim Riau, 2012  
accessed from *repository.uin-suska.ac.id* on July 02nd 2017 at 10.00 a.m.

Rizkina, Shela., *The Effect of Brainstoming Technique in Writing Desriptive Text at VIII Grade of MTsN Stabat Medan*: UIN Sumatera Utara, 2017 5 accessed from *repository.uinsu.ac.id* on July 02nd 2017 at 10.13 a.m.

Pemilu,Siti Zubaidah Pemilu., Interview with an English Teacher in SMAN 3 Padangsidempuan on 07 January 2017, at 08.30 a.m.

Sugiono, *Statistik Untuk Penelitian*, Bandung: Alfabeta, 2013

Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*, Jakarta: Rineka Cipta, 2006

Syaiful Bahri Djamarah, *Strategi BelajarMengajar*, Jakarta: PT, Asdi Maharsya, 2006

Suparmin and Rahmadi Dadang S, *Bridge to the World English Book for Senior High School*, Surakarta: CV Mediatama, 2012

Tayyaba Zarif, *Interdisclipnary Journal Of Contemporary Research In Business* Vol.4, No.9 January 2013, accessed from *ijcrb.webs.com* on 20 May 2017 at 08.51 p.m.

## **CURRICULUM VITAE**



### **A. Identity**

**Name** : Fildayanti Wahyuni Hsb  
**Reg.No** : 13 340 0010  
**Place/Birth** : Paadngsidmpuan, 10th January 1995  
**Religion** : Islam  
**Sex** : Female  
**Address** : Paadangsidimpuan Batunadua Julu

### **B. Parents**

**Father's Name** : Sawal Hsb  
**Mother's Name** : Almh. Nurjannah Siregar

### **C. Educational Background**

1. **Elementary School** : SD NEGERI 200307 Rimbasoping  
2. **Junior High School** : SMP NEGERI 2 Padangsidmpuan  
3. **Senior High School** : SMA NEGERI 3 Padangsidimpuan

## **Appendix 1**

### **RENCANA PELAKSANAAN PEMBELAJARAN**

**(RPP)**

#### **EXPERIMENT CLASS**

- Nama Sekolah : SMAN 3 Padangsidempuan
- Mata Pelajaran : Bahasa Inggris
- Kelas : XI
- Semester : I
- Standar Kompetensi : Mengungkapkan makna dalam teks monolog/ esei tulis berbentuk hortatory exposition secara akurat, lancar, dan berterima dalam konteks kehidupan sehari-hari.
- Kompetensi Dasar : Mengungkapkan makna dan langkah-langkah retorika dalam teks monolog berbentuk hortatory exposition dengan menggunakan ragam bahasa tulis secara akurat, lancar dan berterima untuk berinteraksi dengan lingkungan terdekat.
- Jenis teks/ Tema : Hortatory Exposition Text
- Alokasi waktu : 2 x 45 menit
- Indicator : 1. Mengungkapkan makna dalam teks hortatory.  
2. Menulis teks berbentuk hortatory
- Tujuan Pembelajaran : Siswa dapat menulis teks monolog berbentuk .

Materi Pembelajaran : Hortatory Exposition Text

Metode : Brainstorming

Langkah-langkah kegiatan (Procedure)

a. Kegiatan pendahuluan

1. Mengucapkan salam
2. Memulai pelajaran dengan mengajak siswa membaca do'a.

b. Kegiatan inti

1. Siswa menulis atau mengungkapkan setiap kata ataupun ide yang ada dalam pikiran mereka masing-masing dengan cepat tanpa peduli salah ataupun benar.
2. Ulasan atau ide siswa akan dievaluasi, ide yang relevan digabungkan, apabila terdapat ide yang sama ambil salah satunya dan ide yang tidak relevan dicoret.
3. Semua ide yang telah dievaluasi dan diklasifikasikan sesuai strukturnya.
4. Peserta menulis garis-garis besar dan judul sesuai dengan masalah yang telah dibahas disertai dengan main idea atau gagasan utama utama.
5. Tahap terakhir siswa menuliskan paragraf berdasarkan garis besar yang telah dibuat.

c. Kegiatan penutup

1. Menyimpulkan sekaligus menutup pembelajaran.
2. Mengucapkan salam.

Sumber Belajar : Buku teks dan buku-buku yang relevan.

Evaluasi :

<b>Indicator pencapaian kompetensi</b>	<b>Tehnik penilaian</b>	<b>Bentuk instrument</b>	<b>Instrument/soal</b>
--	-------------------------	--------------------------	------------------------

Menulis teks berbentuk hortatory exposition text	Tes tertulis	Tugas individu	Write a hortatory Exposition text about the topic given.
--	--------------	----------------	--

Score :

1. Grammar :
2. Organization :
3. Fluency :
4. Vocabulary :
5. Mechanic :

---

Total score :

Padangsidempuan, 2018

**Validator**

**Researcher**

**Sojuangon Rambe, S.S.,M.Pd**

**Fildayanti Wahyuni Hsb**

**Nip. 197908152006004 1 003**

**Nim. 13 340 0010**

Learning material

Positive of Watching TV

Positive effect of Watching TV
-
-
-
-
-
-
-
-
-
-
-
-

Task: write a hortatory exposition text base on the *brainstorm ideas* above.



## Appendix 2

### RENCANA PELAKSANAAN PEMBELAJARAN (RPP) CONTROL CLASS

Nama Sekolah : SMAN 3 Padangsidempuan

Mata Pelajaran : Bahasa Inggris

Kelas : XI

Semester : I

Standar Kompetensi : Mengungkapkan makna dalam teks monolog/ esei tulis berbentuk hortatory exposition secara akurat, lances, dan berterima dalam konteks kehidupan sehari-hari.

Kompetensi Dasar : Mengungkapkan makna dan langkah-langkah retorika dalam teks monolog berbentuk hortatory exposition dengan menggunakan ragam bahasa tulis secara akurat, lancar dan berterima untuk berinteraksi dengan lingkungan terdekat.

Jenis teks/ Tema : Hortatory Exposition Text

Alokasi waktu : 2 x 45 menit

Indicator : 1. Mengungkapkan makna dalam teks hortatory exposition  
2. Menulis teks berbentuk hortatory exposition

Tujuan Pembelajaran : Siswa dapat menulis teks monolog berbentuk hortatory exposition

Materi Pembelajaran : Hortatory Exposition

Metode : Conventional Strategy

Langkah-langkah kegiatan (Procedure)

a. Kegiatan pendahuluan

1. Mengucapkan salam
2. Memulai pelajaran dengan mengajak siswa membaca do'a.

b. Kegiatan inti

1. Guru menjelaskan tentang hortatory exposition text.
2. Guru menjelaskan generic structure of hortatory exposition text.
3. Guru memberikan contoh hortatory exposition text.
4. Guru menanyakan kesulitan yang dialami siswa tentang hortatory exposition text.
5. Guru menjelaskan kembali agar siswa lebih memahami hortatory exposition text.
6. Guru meminta siswa untuk menulis hortatory exposition text.
7. Guru memeriksa hasil pekerjaan siswa.

c. Kegiatan penutup

1. Menyimpulkan sekaligus menutup pembelajaran.
2. Mengucapkan salam.

Sumber Belajar : Buku teks dan buku-buku yang relevan.

Evaluasi :

<b>Indikator pencapaian kompetensi</b>	<b>Teknik penilaian</b>	<b>Bentuk instrumen</b>	<b>Instrument/ soal</b>
Menulis teks berbentuk	Tes tertulis	Tugas individu	Write a hortatory

hortatory exposition			exposition text about the topic given.
----------------------	--	--	--

Score :

1. Grammar :
2. Organization :
3. Fluency :
4. Vocabulary :
5. Mechanic :

Total Score \_\_\_\_\_

Padangsidempuan, 2018

**Validator**

**Researcher**

**Siti Zubaidah Pemilu**  
**Nip. 197009072007012007**

**Fildayanti Wahyuni Hsb**  
**Nim. 13 340 0010**

## **Learning material**

### **Positive effect of Watching TV**

Television today has a lot of positive effects and influences on our society. Television gives us helpful information, various forms of education and entertainment which are all a part of the positive effects that television has on our society. On a day to day basis, television keeps us informed with plenty of helpful information.

The television in today's society has become one of our most basic resources of information. We are informed through the television of the latest news, weather, and information which are important in our daily lives.

Through television we can be warned about almost anything from a hurricane approaching to the fact that the stock market is falling. Television is a great way of educating the people throughout society with important issues that affect our daily lives. . Finally, television serves as a source of entertainment. Televised games create an initial interest in the sport and generate a fan base. Viewers who are interested, get educated through these sports events.

### **Appendix 3**

#### **Pre-Test**

**Time** : You have time 30 minute

**Direction** : Write a text appropriate the indicator of hortatory exposition (thesis, arguments and recommendation) with theme “ Negative impacts of Facebook”

Padangsidimpuan, 2018

**Validator**

**Researcher**

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**Fildayanti W.Hsb**

**NIM. 13 340 0010**

## **Appendix 4**

### **Post-Test**

**Time** : You have time 30

**Direction** : Write a text hortatory exposition appropriate the indicator of the text (thesis, arguments, and recommendation) with theme ‘‘Positive and Negative Impact of Smartphone’’

Padangsidempuan, 2018

**Validator**

**Researcher**

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## Appendix 5

### Score of Experimental Class and Control Class Pre Test

#### 1. Pre Test Score of Experimental Class (XI IPA 3 )

No	The Initial Name of Students (n)	Pre Test
1	ASS	70
2	ADR	75
3	AS	55
4	BA	55
5	CNN	50
6	DK	50
7	EF	50
8	FN	50
9	GAB	70
10	IV	50
11	ID	60
12	IRS	70
13	JUL	55
14	MNH	55
15	MT	40
16	NAN	55
17	PY	40
18	R	45
19	RR	40
20	RA	65
21	RW	55
22	RA	65
23	RNN	55
24	SMH	55

25	SW	40
26	SA	35
27	SA	30
28	TPP	55
29	UKP	65
30	VD	65
31	VA	55
32	ZH	65
33	RH	50
34	NH	50
Total Score		1825



## 2. Pre Test Score of Control Class (XI IPA 5)

No.	The Initial Name of Students (n)	Xi
1	AH	50
2	AKY	45
3	AYS	65
4	AT	75
5	DH	75
6	DBN	35
7	DM	65
8	EF	35
9	EN	45
10	FRS	60
11	HKS	65
12	HJS	60
13	IS	60
14	IHH	65
15	IJ	45
16	JLP	60
17	JIJ	55
18	LNP	65
19	LA	60
20	MY	55
21	MZ	55
22	MA	60
23	NSS	55
24	NS	50
25	NSS	50

26	RH	55
27	RZ	55
28	RFP	60
29	RWB	60
30	SC	75
31	ST	55
32	TJ	45
33	YA	35
34	TM	45
Jumlah Score		1895

## Appendix 6

### RESULT OF NORMALITY TEST IN PRE TEST

#### A. Result Of The Normality Test of XI IPA 3 in Pre-Test

1. The score of XI IPA 3 class in pre test from low score to high score:

30	35	40	40	45	45	45	50	50	50
50	50	50	50	50	50	50	50	55	55
60	60	60	60	60	65	65	65	65	65
70	70	75	75						

2. High = 75  
Low = 30  
Range = High - Low  
= 75 - 30  
= 45
3. Total of Classes =  $1 + 3,3 \log (34)$   
=  $1 + 3,3 \log (34)$   
=  $1 + 3,3 (1.53)$   
=  $1 + 5.049$   
= 6.049
4. Length of Classes =  $\frac{range}{total\ of\ class} = \frac{45}{6} = 7,5 = 8$
5. Mean

Interval	F	X	X'	FX'	X' <sup>2</sup>	FX' <sup>2</sup>
70 – 77	4	73,5	+3	12	9	36
62 – 69	5	65,5	+2	10	4	20
54 – 61	7	57,5	+1	7	1	7
46 – 53	11	49,5	0	0	0	0
38 – 45	5	41,5	-1	-6	1	5
30 – 37	2	33,5	-2	-4	4	8
<i>I</i> = 8	34	-	-	20	19	76

$$\begin{aligned}
 M_x &= M^1 + i \frac{\sum fx^1}{N} \\
 &= 49,5 + 8 \left( \frac{20}{34} \right) \\
 &= 49,5 + 8 (0,58) \\
 &= 49,5 + 4,64 \\
 &= 54,14
 \end{aligned}$$

$$\begin{aligned}
 SD_t &= i \sqrt{\frac{\sum fx'^2}{n} - \left( \frac{\sum fx'}{n} \right)^2} \\
 &= 8 \sqrt{\frac{76}{34} - \left( \frac{20}{34} \right)^2} \\
 &= 8 \sqrt{2,23 - (0,58)^2} \\
 &= 8 \sqrt{2,23 - 0,37} \\
 &= 8 \sqrt{1,86} \\
 &= 8 \times 1,36 \\
 &= 10,88
 \end{aligned}$$

Table of Normality Data Test with Chi Kuadrat Formula

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>	$\frac{(f_0 - f_h)}{f_h}$
-------------------	------------------	-----------	----------------------------	---------------	----------------	----------------	---------------------------

70 – 77	77.5	2.14	0.4838			4	0.96	
62 – 69	69.5	1.41	0.4207	0.06	2.04	5	-0.13	
54 – 61	61.5	0.67	0.2486	0.17	5.78	7	-1.89	
46 – 53	53.5	-0.05	0.48006	-0.23	-7.82	11	0.24	
38 – 45	45.5	-0.79	0.21476	0.26	8.84	5	-0.01	
30 – 37	37.5	-1.52	0.06426	0.15	5.1	2	0.17	
	29.5	-2.26	0.01191	0.05	1.7			
$X^2$								-0.66

Based on the table above, the researcher found that  $x^2_{count} = -0.66$  while  $x^2_{table} = 11.070$  cause  $x^2_{count} < x^2_{table}$  ( $-0.66 < 11.070$ ) with degree of freedom (dk) =  $6-1 = 5$  and significant level  $\alpha = 5\%$ . So distribution of XI IPA 3 class (pre-test) is normal.

## 6. Median

No	Interval	F	FK
1	70 – 77	4	4
2	62 – 69	5	9
3	54 – 61	7	16
4	46 – 53	<b>11</b>	27
5	38 – 45	5	32
6	30 – 37	2	34

Position of Me in the interval of classes is number 4, that:

$$Bb = 45.5$$

$$F = 16$$

$$fm = 11$$

$$i = 8$$

$$n = 34$$

$$1/2n = 17$$

So :

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

$$= 45.5 + 8 \left( \frac{17-16}{11} \right)$$

$$= 45.5 + 8 (0.09)$$

$$= 45.5 + 0.72$$

$$= 46.22$$

## 7. Modus

No	Interval	F	FK
1	70 – 77	4	4
2	62 – 69	5	9
3	54 – 61	7	16
4	46 – 53	<b>11</b>	27
5	38 – 45	5	32
6	30 – 37	2	34

$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 45.5$$

$$d_1 = 4$$

$$d_2 = 6$$

$$i = 8$$

So,

$$\begin{aligned} M_o &= 45.5 + \frac{4}{4+6} 8 \\ &= 45.5 + 0.4 (8) \\ &= 45.5 + 3.2 \\ &= 48.7 \end{aligned}$$

## B. Result of The Normality Test of XI IPA 5 in Pre-Test

1. The score of XI IPA 5 class in pre test from low score to high score:

35	35	35	45	45	45	45	45	50	50
50	55	55	55	55	55	55	55	60	60
60	60	60	60	60	60	65	65	65	65
65	75	75	75						

2. High = 75

$$\text{Low} = 35$$

$$\text{Range} = \text{High} - \text{Low}$$

$$= 75 - 35$$

$$= 40$$

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

$$= 1 + 3,3 \log (34)$$

$$= 1 + 3,3 (1.53)$$

$$= 1 + 5.1$$

$$= 6.1/6$$

$$4. \text{ Length of Classes} = \frac{\text{range}}{\text{total of class}} = \frac{40}{6} = 6.6 = 7$$

5. Mean

Interval	F	X	X'	FX'	X' <sup>2</sup>	FX' <sup>2</sup>
70 – 76	3	73	+3	9	9	27
63 – 69	5	66	+2	10	4	20
56 – 62	8	59	+1	8	1	8
49 – 55	10	52	0	0	0	0
42 – 48	5	45	-1	-5	1	5
35 – 41	3	38	-2	-6	4	12
<i>I</i> = 7	34	-		16	19	72

$$\begin{aligned}
 Mx &= M^1 + i \frac{\sum fx^1}{N} \\
 &= 52 + 7 \left( \frac{16}{34} \right) \\
 &= 52 + 7 (0.47) \\
 &= 52 + 3,29 \\
 &= 55,29
 \end{aligned}$$

$$\begin{aligned}
 SD_t &= i \sqrt{\frac{\sum fx^2}{n} - \left( \frac{\sum fx^1}{n} \right)^2} \\
 &= 7 \sqrt{\frac{72}{34} - \left( \frac{16}{34} \right)^2} \\
 &= 7 \sqrt{1.41 - (0.47)^2} \\
 &= 7 \sqrt{2.59 - 0.22} \\
 &= 7 \sqrt{2.37} \\
 &= 7 \times 1.54 \\
 &= 10.78
 \end{aligned}$$

Table of Normality Data Test with Chi Kuadrat Formula

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>	$\frac{(f_0 - f_h)}{f_h}$
-------------------	------------------	-----------	----------------------------	---------------	----------------	----------------	---------------------------

70 – 76	76.5	1.97	0.4756			3	0.26	
63 – 69	69.5	1.32	0.4066	0.07	2.38	5	-0.01	
56 – 62	62.5	0.67	0.2486	0.16	5.44	8	0.47	
49 – 55	55.5	0.02	0.0871	0.16	5.44	10	0.84	
42 – 48	48.5	-0.63	0.26435	-0.18	-6.12	5	-2.63	
35 – 41	41.5	-1.28	0.10027	0.16	5.44	3	-0.01	
	40.5	-1.37	0.8534	-0.75	-25.5		0.88	
$X^2$								-0.2

Based on the table above, the reseracher found that  $x^2_{\text{count}} = -0.2$  while  $x^2_{\text{table}} = 11.070$  cause  $x^2_{\text{count}} < x^2_{\text{table}}$  ( $-0.2 < 11.070$ ) with degree of freedom (dk) =  $6-1 = 5$  and significant level  $\alpha = 5\%$ . So distribution of XI IPA 5 class (pre-test) is normal.

## 6. Median

Interval	F	FK
70 – 76	3	3
63 – 69	5	8
56 – 62	8	16
49 – 55	10	26
42 – 48	5	31
35 – 41	3	34

Position of Me in the interval of classes is number 4, that:

$$Bb = 48.5$$

$$F = 16$$

$$fm = 10$$

$$i = 7$$

$$n = 34$$

$$1/2n = 17$$

So :

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

$$\begin{aligned}
&= 48.5 + 7 \left( \frac{17-16}{10} \right) \\
&= 48.5 + 7 (0.1) \\
&= 48.5 + (0.7) \\
&= 49.2
\end{aligned}$$

## 7. Modus

Interval	F	FK
70 – 76	3	3
63 – 69	5	8
56 – 62	8	16
49 – 55	10	26
42 – 48	5	31
35 – 41	3	34

$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 48.5$$

$$d_1 = 2$$

$$d_2 = 5$$

$$i = 7$$

So,

$$\begin{aligned}
M_o &= 48.5 + \frac{2}{2+5} 7 \\
&= 48.5 + 0.29 (7) \\
&= 48.5 + 2.03 \\
&= 50.53
\end{aligned}$$

## Appendix 7

### HOMOGENEITY TEST (PRE-TEST)

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

$$S^2 = \frac{\sum (f \cdot nh^2)}{n}$$

Hypotheses:

$$H_0 : \sigma_1^2 = \sigma_2^2$$

$$H_1 : \sigma_1^2 \neq \sigma_2^2$$



a. Variant of XI IPA 3 Class is:

No.	$X_i$	$X_i^2$
1	70	4900
2	75	5625
3	55	3025
4	55	3025
5	50	2500
6	50	2500
7	50	2500
8	50	2500
9	70	4900
10	50	2500
11	60	3600
12	70	4900
13	55	3025
14	55	3025
15	40	1600
16	55	3025
17	40	1600
18	45	2025
19	40	1600
20	65	4225
21	55	3025
22	65	4225
23	55	3025
24	55	3025
25	40	1600
26	35	1225
27	30	900
28	55	3025
29	65	4225
30	65	4225
31	55	3025
32	65	4225
33	50	2500
34	50	2500
$\Sigma$	<b>1825</b>	<b>101825</b>

$$n = 34$$

$$\Sigma x_i = 1825$$

$$\Sigma x_i^2 = 101825$$

So:

$$\begin{aligned}
S^2 &= \frac{n\sum xi^2 - (\sum xi)^2}{n(n-1)} \\
&= \frac{34(101825) - (1825)^2}{34(34-1)} \\
&= \frac{3462050 - 3330625}{34(33)} \\
&= \frac{131425}{1122} \\
&= 117,13
\end{aligned}$$

b. Variant of XI IPA 5 class is:

No	Xi	Xi <sup>2</sup>
1	55	3025
2	55	3025
3	60	3600
4	75	5625
5	75	5625
6	45	2025
7	70	4900
8	45	2025
9	55	3025
10	65	4225
11	60	3600
12	65	4225
13	65	4225
14	65	4225
15	55	3025
16	65	4225
17	60	3600
18	60	3600
19	40	1600
20	60	3600
21	60	3600
22	50	2500
23	60	3600
24	50	2500
25	50	2500
26	50	2500
27	50	2500
28	45	2025
29	60	3600
30	55	3025
31	40	1600
32	45	2025

33	35	1225
34	45	2025
$\Sigma$	<b>1895</b>	<b>109275</b>

$$n = 34$$

$$\Sigma xi = 1895$$

$$\Sigma xi^2 = 109275$$

So:

$$\begin{aligned}
 S^2 &= \frac{n\Sigma xi^2 - (\Sigma xi)^2}{n(n-1)} \\
 &= \frac{34(109275) - (1895)^2}{34(34-1)} \\
 &= \frac{3715350 - 3591025}{34(33)} \\
 &= \frac{124325}{1122} \\
 &= 110,81
 \end{aligned}$$

The Formula used to test hypothesis was:

**1. XI IPA 3 and XI IPA 5 :**

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

So:

$$\begin{aligned}
 F &= \frac{117.13}{110.81} \\
 &= 1.06
 \end{aligned}$$

After doing the calculation, researcher found that  $F_{count} = 1.06$  with  $\alpha 5\%$  and  $dk = n-k-1 = 34 - 1 - 1 = 32$  and 32 from the distribution list F, researcher found that  $F_{table} = 4.15$ , cause  $F_{count} < F_{table}$  ( $1.06 < 4.15$ ). So, there is no difference the variant between the XI IPA 3 class and XI IPA 5 class. It means that the variant is homogenous.

## Appendix 8

### Score of Experimental Class and Control Class

#### Post Test

**1. Post Test Score of Experimental Class After Using Outlining Technique (XI IPA 3)**

No	The Initial Name of Students (n)	Post Test
1	ASS	80
2	ADR	90

3	AS	70
4	BA	70
5	CNN	80
6	DK	80
7	EF	70
8	FN	75
9	GAB	90
10	IV	75
11	ID	90
12	IRS	85
13	JUL	65
14	MNH	65
15	MT	65
16	NAN	65
17	PY	60
18	R	65
19	RR	65
20	RA	80
21	RW	55
22	RA	80
23	RNN	65
24	SMH	65
25	SW	45
26	SA	60
27	SA	60
28	TPP	65
29	UKP	75
30	VD	75
31	VA	70
32	ZH	80
33	RH	45
34	NH	65
$\Sigma$		2390

## 2. Post Test Score of Control Class (XI-IPA 5)

No.	The Initial Name of Students (n)	Post Test
1	AH	50
2	AKY	65
3	AYS	70
4	AT	80
5	DH	80

6	DBN	60
7	DM	75
8	EF	60
9	EN	65
10	FRS	70
11	HKS	70
12	HJS	70
13	IS	65
14	IHH	65
15	IJ	65
16	JLP	55
17	JIJ	65
18	LNP	65
19	LA	70
20	MY	65
21	MZ	60
22	MA	60
23	NSS	55
24	NS	60
25	NSS	60
26	RH	55
27	RZ	50
28	RFP	45
29	RWB	70
30	SC	70
31	ST	60
32	TJ	40
33	YA	50
34	TM	50
$\Sigma$		2110

## Appendix 9

### RESULT OF NORMALITY TEST IN POST TEST

#### a. Result Of The Normality Test Of XI IPA 3 in Post-Test

1. The score of X IPA 3 class in post test from low score to high score:

45	45	55	60	60	60	65	65	65	65
65	65	65	65	65	65	70	70	70	70
75	75	75	75	80	80	80	80	80	80
85	90	90	90						

2. High = 90  
 Low = 45  
 Range = High – Low  
 = 90 - 45  
 = 45

3. Total of Classes =  $1 + 3,3 \log (n)$   
 =  $1 + 3,3 \log (34)$   
 =  $1 + 3,3 (1.53)$   
 =  $1 + 5.049$   
 = 6.049

4. Length of Classes =  $\frac{\text{range}}{\text{total of class}} = \frac{45}{6} = 7.5 = 8$

5. Mean

Interval	F	X	X'	FX'	X' <sup>2</sup>	FX' <sup>2</sup>
85 – 92	4	88.5	+3	12	9	36
77 – 84	6	80.5	+2	12	4	24
69 – 76	8	72.5	+1	8	1	8
61 – 68	10	64.5	0	0	0	0
53 – 60	4	56.5	-1	-4	1	4
45 – 52	2	48.5	-2	-4	4	8
<i>I</i> = 8	34	-	-	24	19	80

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

$$= 64.5 + 8 \left( \frac{24}{34} \right)$$

$$= 64.5 + 8 (0.70)$$

$$= 64.5 + 5,6$$

$$= 70.1$$

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

$$\begin{aligned}
&= 8\sqrt{\frac{80}{34} - \left(\frac{24}{34}\right)^2} \\
&= 8\sqrt{2.35 - (0.70)^2} \\
&= 8\sqrt{2.35 - 0.49} \\
&= 8\sqrt{1.86} \\
&= 8 \times 1.36 \\
&= 10.88
\end{aligned}$$

Table of Normality Data Test with Chi Kuadrat Formula

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	f <sub>h</sub>	f <sub>o</sub>	$\frac{(f_o-f_h)}{f_h}$
85 – 91	91.5	1.96	0.4750	0.06	2.04	4	
77 – 84	84.5	1.32	0.4066	0.39	13.26	6	0.96
69 – 70	70.5	0.03	0.0120	-0.43	-14.62	8	-0.54
61 – 68	68.5	-0.14	0.44433	0.25	8.5	10	-1.54
53 – 60	60.5	-0.88	0.18943	0.13	4.42	4	0.17
45 – 52	52.5	-1.61	0.05370	0.04	1.36	2	-0.05
	44.5	-2.35	0.00939				0.47
						X <sup>2</sup>	-0.53

Based on the table above, the reseracher found that  $x^2_{count} = 2.4$  while  $x^2_{table} = 11.070$  cause  $x^2_{count} < x^2_{table}$  ( $-0.53 < 11.070$ ) with degree of freedom (dk) =  $6-1 = 5$  and significant level  $\alpha = 5\%$ . So distribution of XI IPA 3 class (post-test) is normal.

## 6. Median

Interval	F	FK
85 - 91	4	4
77 - 84	6	10
69 - 76	8	18
61 - 68	<b>10</b>	28
53 - 60	4	32
45 – 52	2	34

Position of Me in the interval of classes is number 4, that:

$$Bb = 60.5$$

$$F = 18$$

$$fm = 10$$

$$i = 8$$

$$n = 34$$

$$1/2n = 17$$

So :

$$\begin{aligned} Me &= Bb + i \left( \frac{n/2 - F}{fm} \right) \\ &= 60.5 + 8 \left( \frac{17 - 18}{10} \right) \\ &= 60.5 + 8 (-0.1) \\ &= 60.5 + (-0.8) \\ &= 59.7 \end{aligned}$$

7. Modus

Interval	F	FK
85 - 91	4	4
77 - 84	6	10
69 - 76	8	18
61 - 68	<b>10</b>	28
53 - 60	4	32
45 - 52	2	34

$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 60.5$$

$$d_1 = 2$$

$$d_2 = 6$$

$$i = 8$$

So,

$$\begin{aligned} M_o &= 60.5 + \frac{2}{2+6} 8 \\ &= 60.5 + 0.25 (8) \\ &= 60.5 + 2 \\ &= 62.5 \end{aligned}$$

**C. Result of The Normality Test of XI-IPA 5 in Post-Test**



1. The score of XI IPA 5 class in post test from low score to high score:

40	45	50	50	50	50	55	55	55	55
60	60	60	60	60	60	65	65	65	65
65	65	65	65	70	70	70	70	70	70
70	75	80	80						

2. High = 80  
 Low = 40  
 Range = High - Low  
 = 80 - 40  
 = 40

3. Total of Classes =  $1 + 3,3 \log (n)$   
 =  $1 + 3,3 \log (34)$   
 =  $1 + 3,3 (1.53)$   
 =  $1 + 5.049$   
 =  $6.049 / 6$

4. Length of Classes =  $\frac{range}{total\ of\ class} = \frac{40}{6} = 6.6/7$

5. Mean

Interval	F	X	X'	FX'	X' <sup>2</sup>	FX' <sup>2</sup>
75 - 81	3	78	+3	9	9	27
68 - 74	7	71	+2	14	4	28
61 - 67	8	64	+1	8	1	8
54 - 60	10	57	0	0	0	0
47 - 53	4	50	-1	-4	1	4
40 - 46	2	43	-2	-4	4	8
I = 8	34	-	-	23	19	75

$$\begin{aligned}
 Mx &= M^1 + i \frac{\sum fx^1}{N} \\
 &= 57 + 7 \left( \frac{23}{34} \right) \\
 &= 57 + 7 (0.66) \\
 &= 57 + 4.62 \\
 &= 61.62
 \end{aligned}$$

$$SD_t = i \sqrt{\frac{\sum fx^2}{n} - \left( \frac{\sum fx^1}{n} \right)^2}$$

$$\begin{aligned}
&= 8\sqrt{\frac{75}{34} - \left(\frac{23}{34}\right)^2} \\
&= 8\sqrt{2.20 - (0.7)^2} \\
&= 8\sqrt{2.20 - 0.49} \\
&= 8\sqrt{1.71} \\
&= 8 \times 1.31 \\
&= 10.48
\end{aligned}$$

Table of Normality Data Test with Chi Kuadrat Formula

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 – 81	81.5	1.58	0.4429					
68 – 74	74.5	0.91	0.3186	0.12	4.08	3	-0.26	
61 – 67	67.5	0.24	0.0948	0.22	7.48	7	-0.06	
54 – 60	60.5	-0.42	0.33724	-0.24	-8.16	8	-1.98	
47 – 53	53.5	-1,09	0.13786	0.19	6.46	10	0.55	
40 – 46	46.5	-1.76	0.03920	0.09	3.06	4	-0.31	
	39.5	-2.43	0.00755	0.03	1.02	2	0.96	
$X^2$								-1.1

Based on the table above, the reseracher found that  $x^2_{count} = -1.1$  while  $x^2_{table} = 11.070$  cause  $x^2_{count} < x^2_{table}$  ( $-1.1 < 11.070$ ) with degree of freedom (dk) =  $6-1 = 5$  and significant level  $\alpha = 5\%$ . So distribution of XI IPA 5 class (postest) is normal.

#### 6. Median

Interval	F	FK
75 – 81	3	3

68 – 74	7	10
61 – 67	8	18
54 – 60	10	28
47 – 53	4	32
40 – 46	2	34

Position of Me in the interval of classes is number 4, that:

$$Bb = 53.5$$

$$F = 18$$

$$fm = 10$$

$$i = 8$$

$$n = 34$$

$$1/2n = 17$$

So :

$$\begin{aligned} Me &= Bb + i \left( \frac{n/2 - F}{fm} \right) \\ &= 53.5 + 8 \left( \frac{17-18}{10} \right) \\ &= 53.5 + 8 (-0.1) \\ &= 53.5 + -0.8 \\ &= 52.7 \end{aligned}$$

## 7. Modus

Interval	F	FK
75 – 81	3	3
68 – 74	7	10
61 – 67	8	18
54 – 60	10	28
47 – 53	4	32
40 – 46	2	34

$$M_o = L + \frac{d_1}{d_1 + d_2} i$$

$$L = 53.5$$

$$d_1 = 2$$

$$d_2 = 6$$

$$i = 7$$

So,

$$\begin{aligned} M_o &= 53.5 + \frac{2}{2+6} 8 \\ &= 53.5 + 0.25 (8) \\ &= 53.5 + 2 = 55.5 \end{aligned}$$

## Appendix 10

### HOMOGENEITY TEST (POST-TEST)

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

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

Hypotheses:

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

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

a. Variant of XI IPA 3 class is:

No.	Xi	Xi <sup>2</sup>
1	80	6400
2	90	8100
3	70	4900
4	70	4900
5	80	6400
6	80	6400
7	70	4900
8	75	5625
9	90	8100
10	75	5625
11	90	8100
12	85	7225
13	65	4225
14	65	4225
15	65	4225
16	65	4225
17	60	3600
18	65	4225
19	65	4225
20	80	6400
21	55	3025
22	80	6400
23	65	4225
24	65	4225

25	45	2025
26	60	3600
27	60	3600
28	65	4225
29	75	5625
30	75	5625
31	70	4900
32	80	6400
33	45	2025
34	65	4225
$\Sigma$	<b>2390</b>	<b>172150</b>

$$n = 34$$

$$\Sigma xi = 2390$$

$$\Sigma xi^2 = 172150$$

So:

$$\begin{aligned}
 S^2 &= \frac{n\Sigma xi^2 - (\Sigma xi)^2}{n(n-1)} \\
 &= \frac{34(172150) - (2390)^2}{34(34-1)} \\
 &= \frac{5853100 - 5712100}{34(33)} \\
 &= \frac{141000}{1122} \\
 &= 125,66
 \end{aligned}$$

b. Variant of XI IPA 5 class is:

NO	<b>Xi</b>	<b>Xi<sup>2</sup></b>
1	50	2500
2	65	4225
3	70	4900
4	80	6400
5	80	6400
6	60	3600
7	75	5625
8	60	3600
9	65	4225
10	70	4900
11	70	4900
12	70	4900
13	65	4225
14	65	4225
15	65	4225
16	55	3025

17	65	4225
18	65	4225
19	70	4900
20	65	4225
21	60	3600
22	60	3600
23	55	3025
24	60	3600
25	60	3600
26	55	3025
27	50	2500
28	45	2025
29	70	4900
30	70	4900
31	55	3025
32	40	1600
33	50	2500
34	50	2500
$\Sigma$	<b>2110</b>	<b>133850</b>

$$n = 34$$

$$\sum xi = 2110$$

$$\sum xi^2 = 133850$$

So:

$$\begin{aligned}
 S^2 &= \frac{n\sum xi^2 - (\sum xi)^2}{n(n-1)} \\
 &= \frac{34(133850) - (2110)^2}{34(34-1)} \\
 &= \frac{4550.900 - 4452100}{34(33)} \\
 &= \frac{98.800}{1122} \\
 &= 88.05
 \end{aligned}$$

### 1. XI IPA 3 and XI IPA 5 :

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

So:

$$\begin{aligned}
 F &= \frac{125.66}{88.05} \\
 &= 1.43
 \end{aligned}$$

After doing the calculation, researcher found that  $F_{\text{count}} = 1.43$  with  $\alpha 5\%$  and  $dk = n-k-1 = 34 - 1 - 1 = 32$  and 32 from the distribution list F, researcher found that  $F_{\text{table}} =$

4.15, cause  $F_{\text{count}} < F_{\text{table}}$  ( $1.43 < 4.15$ ). So, there is no difference the variant between the XI IPA 3 class and XI IPA 5 class. It means that the variant is homogenous.

## Appendix 11

### T-test of the Both Averages in Pre-Test

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

$$Tt = \frac{M_1 - M_2}{\sqrt{\left(\frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1+n_2-2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$Tt = \frac{54.14 - 55.29}{\sqrt{\left(\frac{(34-1)117.13 + (34-1)110.81}{34+34-2}\right)\left(\frac{1}{34} + \frac{1}{34}\right)}}$$

$$Tt = \frac{-1.15}{\sqrt{\left(\frac{33(117.13) + 33(110.81)}{66}\right)(0.03 + 0.03)}}$$

$$Tt = \frac{-1.15}{\sqrt{\left(\frac{3865.29 + 3656.73}{66}\right)(0.03 + 0.03)}}$$

$$Tt = \frac{-1.15}{\sqrt{\left(\frac{7522.02}{66}\right)(0.06)}}$$

$$Tt = \frac{-1.15}{\sqrt{113.97 (0.06)}}$$

$$Tt = \frac{-1.15}{\sqrt{5.83}}$$

$$Tt = \frac{-1.15}{2.41}$$

$$Tt = -0.48$$

Based on researcher calculation result of homogeneity test of the both averages, researcher found that  $t_{\text{count}} = -0.48$  with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 34 + 34 - 2 = 66$ ,  $t_{\text{table}} = 2.00$ . So,  $t_{\text{count}} < t_{\text{table}}$  ( $-0.48 < 2.00$ ) and  $H_0$  is accepted, it means no difference the average between the first class as experimental class and the second class as control class in this research.

## Appendix 12

### T-test of the Both Averages in Post-Test

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

$$Tt = \frac{M_1 - M_2}{\sqrt{\left(\frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1+n_2-2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$Tt = \frac{70.1 - 61.62}{\sqrt{\left(\frac{(34-1)125.66 + (34-1)88.05}{34+34-2}\right)\left(\frac{1}{34} + \frac{1}{34}\right)}}$$

$$Tt = \frac{8.48}{\sqrt{\left(\frac{33(125.66) + 33(88.05)}{66}\right)(0.03 + 0.03)}}$$

$$Tt = \frac{8.48}{\sqrt{\left(\frac{4146.78 + 2905.65}{66}\right)(0.03 + 0.03)}}$$

$$Tt = \frac{8.48}{\sqrt{\left(\frac{7052.43}{66}\right)(0.06)}}$$

$$Tt = \frac{8.48}{\sqrt{106.85(0.06)}}$$

$$Tt = \frac{8.48}{\sqrt{6.41}}$$

$$Tt = \frac{8.48}{2.53}$$

$$Tt = 3.35$$

Based on calculation above, the result of homogeneity test of the both averages, researcher found that  $t_{\text{count}} = 3.35$  with opportunity  $(1 - \alpha) = 1 - 5\% = 95\%$  and  $dk = n_1 + n_2 - 2 = 34 + 34 - 2 = 62$ , researcher found that  $t_{\text{table}} = 2.000$ , cause,  $t_{\text{count}} > t_{\text{table}} (3.35 > 2.000)$  it means that  $H_a$  was accepted, it means there was the difference average between experimental class and control class in post test. It can be concluded that there was the significant effect of using outlining technique on students' writing hortatory exposition text ability at XI grade of SMAN 3 Padangsidempuan.

## Appendix 13

### INDICATOR OF WRITING IN PRE-TEST AND POST TEST

#### A. Assessment Indicator of Writing in Pre-test of Experimental Class

Indicator of Writing							
No	The Initial Name of Students (n)	Grammar	Vocabulary	Mechanics	Fluency	Form	Score
1	ASS	15	15	10	15	15	70



2	ADR	20	10	10	15	20	75
3	AS	5	10	15	15	10	55
4	BA	5	10	15	15	10	55
5	CNN	10	10	10	10	10	50
6	DK	10	10	5	15	10	50
7	EF	5	10	15	15	5	50
8	FN	10	5	10	10	15	50
9	GAB	15	15	15	15	10	70
10	IV	10	10	10	10	10	50
11	ID	15	10	10	10	15	60
12	IRS	15	15	15	15	10	70
13	JUL	5	10	15	15	10	55
14	MNH	5	10	15	15	10	55
15	MT	5	5	10	10	10	40
16	NAN	10	15	10	10	10	55
17	PY	5	10	10	10	5	40
18	R	10	10	10	10	15	45
19	RR	5	10	10	10	5	40
20	RA	10	15	15	15	10	65
21	RW	10	15	10	10	10	55
22	RA	15	15	15	15	5	65
23	RNN	10	15	10	15	5	55
24	SMH	10	15	10	15	5	55
25	SW	10	15	5	10	5	40
26	SA	10	5	5	5	5	30
27	SA	15	5	10	10	5	35
28	TPP	15	10	10	15	5	55
29	UKP	10	15	15	15	10	65
30	VD	15	15	15	15	5	65
31	VA	15	15	10	10	5	55
32	ZH	10	15	15	15	10	65
33	RH	10	15	10	10	5	50
34	NH	10	15	10	10	5	50

**B. Assessment Indicator of Writing in Post-test of Experimental Class**

Indicator of Writing							
No	The Initial	Grammar	Vocabulary	Mechanics	Fluency	Form	Total

	<b>Name of Students (n)</b>						
1	ASS	15	15	20	15	15	80
2	ADR	20	15	20	15	20	90
3	AS	15	15	15	10	15	70
4	BA	15	15	15	10	15	70
5	CNN	15	15	20	15	15	80
6	DK	15	20	15	15	15	80
7	EF	10	15	15	20	10	70
8	FN	10	15	20	20	10	75
9	GAB	20	15	20	15	20	90
10	IV	15	15	15	20	10	75
11	ID	10	15	20	20	10	90
12	IRS	15	20	20	15	15	85
13	JUL	10	15	15	10	15	65
14	MNH	15	15	10	10	15	65
15	MT	15	15	10	15	10	65
16	NAN	10	15	15	10	15	65
17	PY	15	15	10	10	10	60
18	R	10	15	15	10	15	65
19	RR	15	15	10	15	10	65
20	RA	15	15	15	20	15	80
21	RW	10	15	10	15	5	55
22	RA	15	15	20	20	10	80
23	RNN	10	15	15	10	15	65
24	SMH	15	15	15	5	15	65
25	SW	5	10	15	10	5	45
26	SA	15	15	10	10	10	60
27	SA	15	15	10	10	10	60
28	TPP	10	15	15	10	15	65
29	UKP	15	15	20	15	10	75
30	VD	10	10	20	15	10	75
31	VA	15	15	15	10	15	70
32	ZH	15	15	20	15	15	80
33	RH	5	10	15	10	5	45
34	NH	10	15	15	10	15	65

**C. Assessment Indicator of Writing in Pre-test of Control Class**

Indicator of Writing							
No.	The Initial Name of Students (n)	Grammar	Vocabulary	Mechanics	Fluency	Form	Total
1	AH	15	10	10	10	10	55
2	AKY	15	10	10	5	10	55
3	AYS	15	15	10	10	10	60
4	AT	15	15	20	15	10	75
5	DH	15	15	20	15	10	75
6	DBN	15	15	5	5	5	45
7	DM	15	15	15	15	10	70
8	EF	15	10	10	5	5	45
9	EN	10	15	15	10	5	55
10	FRS	10	15	15	15	10	65
11	HKS	15	15	10	10	10	60
12	HJS	10	15	15	15	10	65
13	IS	15	15	15	10	10	65
14	IHH	15	15	15	10	10	65
15	IJ	10	15	5	5	10	55
16	JLP	10	15	15	15	10	65
17	JIJ	15	15	10	10	10	60
18	LNP	10	15	15	10	10	60
19	LA	15	10	5	5	5	40
20	MY	15	15	10	10	10	60
21	MZ	15	15	10	10	10	60
22	MA	10	15	10	15	10	50
23	NSS	15	15	10	10	10	60
24	NS	10	15	5	10	10	50
25	NSS	10	10	10	10	10	50
26	RH	15	15	10	5	5	50
27	RZ	10	15	15	5	5	50
28	RFP	10	10	10	10	5	45
29	RWB	15	15	10	10	10	60
30	SC	15	10	10	10	10	55
31	ST	5	10	10	5	10	40
32	TJ	5	10	10	10	10	45
33	YA	5	10	10	5	5	35

34	TM	10	10	10	10	5	45
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#### D. Assessment Indicator of Writing in Post-test of Control Class

Indicator of Writing							
No.	The Initial Name of Students (n)	Grammar	Vocabulary	Mechanics	Fluency	Form	Total
1	AH	10	10	10	10	10	50
2	AKY	10	15	15	15	10	65
3	AYS	15	15	15	15	10	70
4	AT	15	15	15	20	15	80
5	DH	20	15	15	20	10	80
6	DBN	15	15	5	15	10	60
7	DM	15	15	20	20	15	75
8	EF	15	15	10	10	10	60
9	EN	10	15	15	15	10	65
10	FRS	15	15	10	15	15	70
11	HKS	15	15	15	15	10	70
12	HJS	15	10	15	15	15	70
13	IS	15	10	15	15	10	65
14	IHH	10	15	15	15	10	65
15	IJ	10	15	15	10	15	65
16	JLP	15	15	15	10	5	55
17	JIJ	10	15	15	15	10	65
18	LNP	15	15	10	15	10	65
19	LA	15	15	15	15	10	70
20	MY	10	15	15	15	10	65
21	MZ	15	15	10	10	10	60
22	MA	15	15	10	10	10	60
23	NSS	15	15	15	10	5	55
24	NS	15	15	10	10	10	60
25	NSS	10	15	15	10	10	60
26	RH	15	15	10	10	5	55
27	RZ	10	10	10	10	10	50
28	RFP	5	10	15	10	5	45
29	RWB	15	15	15	15	10	70

30	SC	20	15	10	15	10	70
31	ST	10	15	15	10	10	60
32	TJ	10	10	10	10	5	40
33	YA	10	10	10	10	10	50
34	TM	10	15	5	10	10	50

#### Appendix 14

### COMPARISON SCORE OF STUDENT'S WRITING ABILITY IN PRE-TEST AND POST-TEST

#### A. Comparison Score of Students' Writing Ability in Pre-test (Experimental and Control Class)

No	Name	Result Pre-test of Experimental Class	Name	Result of Pre-test of Control Class
1	ASS	70	AH	55
2	ADR	75	AKY	55
3	AS	55	AYS	60
4	BA	55	AT	75
5	CNN	50	DH	75
6	DK	50	DBN	45
7	EF	50	DM	70
8	FN	50	EF	45
9	GAB	70	EN	55
10	IV	50	FRS	65
11	ID	60	HKS	60
12	IRS	70	HJS	65
13	JUL	55	IS	65
14	MNH	55	IHH	65
15	MT	40	IJ	55

16	NAN	55	JLP	65
17	PY	40	JIJ	60
18	R	45	LNP	60
19	RR	40	LA	40
20	RA	65	MY	60
21	RW	55	MZ	60
22	RA	65	MA	50
23	RNN	55	NSS	60
24	SMH	55	NS	50
25	SW	40	NSS	50
26	SA	30	RH	50
27	SA	35	RZ	50
28	TPP	55	RFP	45
29	UKP	65	RWB	60
30	VD	65	SC	55
31	VA	55	ST	40
32	ZH	65	TJ	45
33	RH	50	YA	35
34	NH	50	TM	45

## B. Comparison Score Students' Writing Ability in Post-test (Experimental and Control

### Class

No	Name	Result Post-test of Experimental Class	Name	Result of Post- test of Control Class
1	ASS	80	AH	50
2	ADR	90	AKY	65
3	AS	70	AYS	70
4	BA	70	AT	80
5	CNN	80	DH	80
6	DK	80	DBN	60
7	EF	70	DM	75
8	FN	75	EF	60
9	GAB	90	EN	65
10	IV	75	FRS	70
11	ID	90	HKS	70
12	IRS	85	HJS	70
13	JUL	65	IS	65
14	MNH	65	IHH	65
15	MT	65	IJ	65
16	NAN	65	JLP	55
17	PY	60	JIJ	65

18	R	65	LNP	65
19	RR	65	LA	70
20	RA	80	MY	65
21	RW	55	MZ	60
22	RA	80	MA	60
23	RNN	65	NSS	55
24	SMH	65	NS	60
25	SW	45	NSS	60
26	SA	60	RH	55
27	SA	60	RZ	50
28	TPP	65	RFP	45
29	UKP	75	RWB	70
30	VD	75	SC	70
31	VA	70	ST	60
32	ZH	80	TJ	40
33	RH	45	YA	50
34	NH	65	TM	50

**Appendix 15**

**Chi-Square Table**

<b>Dk</b>	<b>Significant level</b>					
	<b>50%</b>	<b>30%</b>	<b>20%</b>	<b>10%</b>	<b>5%</b>	<b>1%</b>
<b>1</b>	0,455	1,074	1,642	2,706	3,841	6,635
<b>2</b>	1,386	2,408	3,219	4,605	5,991	9,210
<b>3</b>	2,366	3,665	4,642	6,251	7,815	11,341
<b>4</b>	3,357	4,878	5,989	7,779	9,488	13,277
<b>5</b>	4,351	6,064	7,289	9,236	11,070	15,086
<b>6</b>	5,348	7,231	8,558	10,645	12,592	16,812
<b>7</b>	6,346	8,383	9,803	12,017	14,067	18,475
<b>8</b>	7,344	9,524	11,030	13,362	15,507	20,090
<b>9</b>	8,343	10,656	12,242	14,684	16,919	21,666
<b>10</b>	9,342	11,781	13,442	15,987	18,307	23,209
<b>11</b>	10,341	12,899	14,631	17,275	19,675	24,725
<b>12</b>	11,340	14,011	15,812	18,549	21,026	26,217
<b>13</b>	12,340	15,119	16,985	19,812	22,362	27,688
<b>14</b>	13,339	16,222	18,151	21,064	23,685	29,141
<b>15</b>	14,339	17,222	19,311	22,307	24,996	30,578
<b>16</b>	15,338	18,418	20,465	23,542	26,296	32,000
<b>17</b>	16,338	19,511	21,615	24,769	27,587	33,409
<b>18</b>	17,338	20,601	22,760	25,989	28,869	34,805
<b>19</b>	18,338	21,689	23,900	27,204	30,144	36,191
<b>20</b>	19,337	22,775	25,038	28,412	31,410	37,566
<b>21</b>	20,337	23,858	26,171	29,615	32,671	38,932

<b>22</b>	21,337	24,939	27,301	30,813	33,924	40,289
<b>23</b>	22,337	26,018	28,429	32,007	35,172	41,638
<b>24</b>	23,337	27,096	29,553	33,196	35,415	42,980
<b>25</b>	24,337	28,172	30,675	34,382	37,652	44,314
<b>26</b>	25,336	29,246	31,795	35,563	38,885	45,642
<b>27</b>	26,336	30,319	32,912	36,741	40,113	46,963
<b>28</b>	27,336	31,391	34,027	37,916	41,337	48,278
<b>29</b>	28,336	32,461	35,139	39,087	42,557	49,588
<b>30</b>	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>
-3.9	0.00005	0.00005	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004	0.00003	0.00003
-3.8	0.00007	0.00007	0.00007	0.00006	0.00006	0.00006	0.00006	0.00005	0.00005	0.00005
-3.7	0.00011	0.00010	0.00010	0.00010	0.00009	0.00009	0.00008	0.00008	0.00008	0.00008
-3.6	0.00016	0.00015	0.00015	0.00014	0.00014	0.00013	0.00013	0.00012	0.00012	0.00011
-3.5	0.00023	0.00022	0.00022	0.00021	0.00020	0.00019	0.00019	0.00018	0.00017	0.00017
-3.4	0.00034	0.00032	0.00031	0.00030	0.00029	0.00028	0.00027	0.00026	0.00025	0.00024
-3.3	0.00048	0.00047	0.00045	0.00043	0.00042	0.00040	0.00039	0.00038	0.00036	0.00035
-3.2	0.00069	0.00066	0.00064	0.00062	0.00060	0.00058	0.00056	0.00054	0.00052	0.00050
-3.1	0.00097	0.00094	0.00090	0.00087	0.00084	0.00082	0.00079	0.00076	0.00074	0.00071
-3.0	0.00135	0.00131	0.00126	0.00122	0.00118	0.00114	0.00111	0.00107	0.00104	0.00100
-2.9	0.00187	0.00181	0.00175	0.00169	0.00164	0.00159	0.00154	0.00149	0.00144	0.00139
-2.8	0.00256	0.00248	0.00240	0.00233	0.00226	0.00219	0.00212	0.00205	0.00199	0.00193
-2.7	0.00347	0.00336	0.00326	0.00317	0.00307	0.00298	0.00289	0.00280	0.00272	0.00264
-2.6	0.00466	0.00453	0.00440	0.00427	0.00415	0.00402	0.00391	0.00379	0.03680	0.00357
-2.5	0.00621	0.00604	0.00587	0.00570	0.00554	0.00539	0.00523	0.00508	0.00494	0.00480
-2.4	0.00820	0.00798	0.00776	0.00755	0.00734	0.00714	0.00695	0.00676	0.00657	0.00639
-2.3	0.01072	0.01044	0.01017	0.00990	0.00964	0.00939	0.00914	0.00889	0.00866	0.00842
-2.2	0.01390	0.01355	0.01321	0.01287	0.01255	0.01222	0.01191	0.01160	0.01130	0.01101
-2.1	0.01786	0.01743	0.01700	0.01659	0.01618	0.01578	0.01539	0.01500	0.01463	0.01426
-2.0	0.02275	0.02222	0.02169	0.02118	0.02068	0.02018	0.01970	0.01923	0.01876	0.01831
-1.9	0.02872	0.02807	0.02743	0.02680	0.02619	0.02559	0.02500	0.02442	0.02385	0.02330
-1.8	0.03593	0.03515	0.03438	0.03362	0.03288	0.03216	0.03144	0.03074	0.03005	0.02938
-1.7	0.04457	0.04363	0.04272	0.04182	0.04093	0.04006	0.03920	0.03836	0.03754	0.03673
-1.6	0.05480	0.05370	0.05262	0.05155	0.05050	0.04947	0.04846	0.04746	0.04648	0.04551
-1.5	0.06681	0.06552	0.06426	0.06301	0.06178	0.06057	0.05938	0.05821	0.05705	0.05592
-1.4	0.08076	0.07927	0.07780	0.07636	0.07493	0.07353	0.07215	0.07078	0.06944	0.06811
-1.3	0.09680	0.09510	0.09342	0.09176	0.09012	0.08851	0.08691	0.08534	0.08379	0.08226
-1.2	0.11507	0.11314	0.11123	0.10935	0.10749	0.10565	0.10383	0.10204	0.10027	0.09853



-1.1	0.13567	0.13350	0.13136	0.12924	0.12714	0.12507	0.12302	0.12100	0.11900	0.11702
-1.0	0.15866	0.15625	0.15386	0.15151	0.14917	0.14686	0.14457	0.14231	0.14007	0.13786
-0.9	0.18406	0.18141	0.17879	0.17619	0.17361	0.17106	0.16853	0.16602	0.16354	0.16109
-0.8	0.21186	0.20897	0.20611	0.20327	0.20045	0.19766	0.19489	0.19215	0.18943	0.18673
-0.7	0.24196	0.23885	0.23576	0.23270	0.22965	0.22663	0.22363	0.22065	0.21770	0.21476
-0.6	0.27425	0.27093	0.26763	0.26435	0.26109	0.25785	0.25463	0.25143	0.24825	0.24510
-0.5	0.30854	0.30503	0.30153	0.29806	0.29460	0.29116	0.28774	0.28434	0.28096	0.27760
-0.4	0.34458	0.34090	0.33724	0.33360	0.32997	0.32636	0.32276	0.31918	0.31561	0.31207
-0.3	0.38209	0.37828	0.37448	0.37070	0.36693	0.36317	0.35942	0.35569	0.35197	0.34827
-0.2	0.42074	0.41683	0.41294	0.40905	0.40517	0.40129	0.39743	0.39358	0.38974	0.38591
-0.1	0.46017	0.45620	0.45224	0.44828	0.44433	0.44038	0.43644	0.43251	0.42858	0.42465
-0.0	0.50000	0.49601	0.49202	0.48803	0.48405	0.48006	0.47608	0.47210	0.46812	0.46414

**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>3,9</b>	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000
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**Appendix 17**

**Percentage Points of the t Distribution**

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

∞	0,674	1,282	1,645	1,960	2,326	2,576
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## Appendix 18

### DOCUMENTATION









**KEMENTERIAN AGAMA**  
**INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUAN**  
**FAKULTAS TARBİYAH DAN ILMU KEGURUAN**  
**JURUSAN TADRIS BAHASA INGGRIS**

Jalan T. Rizal Nurdin Km 4,5 Sihitang 22733  
Telepon 0634-22080 Faximile 0634-24022

nomor : 9/In.14/E.6a/PP.00.9/09/2016  
ifat : Biasa  
ampiran : -  
al : Pengesahan Judul dan Pembimbing skripsi

Padangsidimpuan, 27 September 2016

Kepada YthBapak/Ibu  
1. Rayendriani Fahmei Lubis, M.Ag (Pembimbing I)  
2. Sojuangon Rambe, S.S., M.Pd (Pembimbing II)  
Di -  
Padangsidimpuan

Assalamu'alaikum Wr. Wb.

Dengan hormat, sehubungan dengan hasil sidang bersama tim pengkajian judul skripsi Jurusan Tadris Bahasa Inggris (TBI) fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidimpuan, maka dengan ini kami mohon kepada Bapak/Ibu agar dapat menjadi Pembimbing Skripsi dan melakukan penyempurnaan judul bilamana perlu untuk mahasiswa dibawah ini dengan data sebagai berikut:

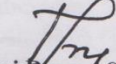
Nama/NIM : Fildayanti Wahyuni Hsb/NIM. 13 340 0010  
Jurusan : Tadris Bahasa Inggris 1  
Judul Skripsi : **Improving Students' Writing Skill Through Brainstorming Technique at Eight Grade Of SMP 2 Padangsidimpuan**

Demikian surat ini disampaikan, atas perhatian dan kesediaan Bapak/Ibu kami ucapkan terimakasih.

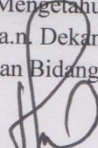
Ketua Jurusan TBI

Sekretaris Jurusan TBI

  
Rayendriani Fahmei Lubis, M.Ag  
NIP. 19710510 200003 2 001

  
Fitri Dayani Siregar, M.Hum  
NIP. 19820731 2009 2 004

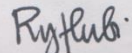
Mengetahui  
a.n. Dekan  
Wakil Dekan Bidang Akademik

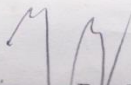
  
Dr. Lelya Hilda, M.Si  
NIP. 19720920 200003 2 002

**Pernyataan Kesediaan sebagai Pembimbing**

BERSEDIA/~~TIDAK BERSEDIA~~  
Pembimbing I

BERSEDIA/~~TIDAK BERSEDIA~~  
Pembimbing II

  
Rayendriani Fahmei Lubis, M.Ag

  
Sojuangon Rambe, S.S., M.Pd



**PEMERINTAH PROVINSI SUMATERA UTARA**  
**DINAS PENDIDIKAN**  
**SEKOLAH MENENGAH ATAS (SMA) NEGERI 3**  
Jalan Perintis Kemerdekaan No.56 Padangmatinggi. Kode Pos : 22727  
Email : [naisyah77@yahoo.com](mailto:naisyah77@yahoo.com). Website : [www.sman3padangsidimpuan.sch.id](http://www.sman3padangsidimpuan.sch.id)  
**KOTA PADANGSIDIMPUAN**


**SURAT KETERANGAN**  
Nomor :421.3/670/ SMA-3/ 2018

Yang bertanda tangan dibawah ini Plt. Kepala SMA Negeri 3 Padangsidimpuan, Kecamatan Padangsidimpuan Selatan, Kota Padangsidimpuan, Provinsi Sumatera Utara dengan ini menerangkan bahwa :

1. Nama : **FILDAYANTI WAHYUNI HSB**
2. NIM : 13 340 0010
3. Program Studi : Tadris/Pendidikan Bahasa Inggris

Peneliti telah melaksanakan Penelitian di SMA Negeri 3 Padangsidimpuan dengan judul " **The Students' Difficulties in Using Conditional Sentences at Grade XI SMA Negeri 3 Padangsidimpuan** ". Sesuai Surat Wakil Dekan Bidang Akademik Institut Agama Islam Negeri Padangsidimpuan No. B-824/In.14/E.4c/TL.00/10/2018 tanggal 01 November s.d 14 November 2018 tentang Mengadakan Penelitian Untuk Penulisan Skripsi.

Demikian Surat Keterangan ini diperbuat dengan sebenarnya agar dapat dipergunakan seperlunya.

Padangsidimpuan, 12 Desember 2018  
Plt. Kepala SMA Negeri 3  
Padangsidimpuan,  
  
**Drs. KARDAN**  
Pembina Tk. I  
NIP.19680715 199412 1 004





**KEMENTERIAN AGAMA REPUBLIK INDONESIA**  
**INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUAN**  
**FAKULTAS TARBIYAH DAN ILMU KEGURUAN**

Jalan T. Rizal Nurdin Km. 4,5 Sihitang 22733  
Telepon (0634) 22080 Faksimile (0634) 24022

Nomor : B - <sup>606</sup> /In.14/E.4c/TL.00/05/2018  
Hal : Izin Penelitian  
Penyelesaian Skripsi.

7 Mei 2018

Yth. Kepala SMAN 3 Padangsidempuan  
Kota Padangsidempuan

Dengan hormat, Dekan Fakultas Tarbiyah dan Ilmu Keguruan Institut Agama Islam Negeri Padangsidempuan menerangkan bahwa :

Nama : Fildayanti Wahyuni Hsb  
NIM : 13 340 0010  
Fakultas/Jurusan : Tarbiyah dan Ilmu Keguruan/TBI  
Alamat : Batunadua Julu

adalah benar Mahasiswa IAIN Padangsidempuan yang sedang menyelesaikan Skripsi dengan Judul "*The Effect of Brainstorming Technique on Students' Writing Ability at XI Grade of SMAN 3 Padangsidempuan*". Sehubungan dengan itu, kami mohon bantuan Bapak/Ibu untuk memberikan data dan informasi sesuai dengan maksud judul diatas.

Demikian disampaikan, atas kerja sama yang baik diucapkan terimakasih.

Dekan



Dr. Lely Hilda, M.Si.  
NIP. 197209202000032002