THE EFFECT OF FISHBONE STRATEGY ON STUDENTS' ABILITY IN WRITING ANALYTICAL EXPOSITION TEXT AT MAS JAMIYATUL AL-WASLIYAH TEMBUNG YEAR 2018/2019

A Skripsi

Submitted to the Faculty of Tarbiyah and Teachers Training State Islamic University of North Sumatra Medan as a Partial Fulfillment of Requirements for the Degree of Sarjana Pendidikan

By :

<u>DWI FARROH ZUHAINAH</u>
NIM: 34154163

DEPARTMENT OF ENGLISH EDUCATION FACULTY OF TARBIYAH AND TEACHERS TRAINING STATE ISLAMIC UNIVERSITY OF NORTH SUMATRA MEDAN 2019

THE EFFECT OF FISHBONE STRATEGY ON STUDENTS' ABILITY IN WRITING ANALYTICAL EXPOSITION TEXT AT MAS JAMIYATUL AL-WASLIYAH TEMBUNG YEAR 2018/2019

A Skripsi

Submitted to the Faculty of Tarbiyah and Teachers Training State Islamic University of North Sumatra Medan as a Partial Fulfillment of Requirements for the Degree of Sarjana Pendidikan

By :
DWI FARROH ZUHAINAH
NIM:34154163

Adviser I   Adviser II

Dr. Sholihatul Hamidah Daulay S.Ag M.Hum   **Utami Dewi, S.Pd., M.Hum**
NIP. 197506222003122002   **NIP. 19540203 1982032 2 001**

DEPARTMENT OF ENGLISH EDUCATION

FACULTY OF TARBIYAH AND TEACHERS TRAINING

STATE ISLAMIC UNIVERSITY OF NORTH SUMATRA

MEDAN

2019

ABSTRACT

Keywords: *Fishbone Strategy, Students' Ability in Writing Analytical Exposition Text*

This research was intended to find out the empirical evidence of the students' ability in writing Analytical exposition text by using Fishbone Strategy at the tenth grade of MAS Jamiyatul Al-wasliyah Tembung. This research was experimental research. The population of this research was all students of class X of MAS Jamiyatul Al-wasliyah Tembung. The samples of this research were taken from 30 students of experimental group (class X-1) and 30 students of control group (class X-2). The instrument for collecting data was a test. After analyzing the data, the writer got; (1) The students' ability in writing analytical exposition text by Fishbone Strategy got the mean 77.40 and standard deviation was 7,21; (2) The students' ability in writing narrative paragraph by using Discussion Method got the mean 66.63 and standard deviation was 7.23. The value of $t_{observed}$ was 7.748 and that of t_{table} was 1.671. So the value of $t_{observed}$ was higher than that of t_{table}. It means that there was significant effect of using Fishbone Strategy on students' ability in writing analytical exposition text.

ABSTRACT

DWI FARROH ZUHAINAH. THE EFFECT OF FISHBONE STRATEGY ON STUDENTS' ABILITY IN WRITING ANALYTICAL EXPOSITION TEXT AT MAS JAMIYATUL AL-WASLIYAH TEMBUNG YEAR 2018/2019

Skripsi, Medan: Department of English Education, Faculty of Tarbiyah Science and Teachers Training, State Islamic University of North Sumatera, Medan 2019.

Keywords:*Fishbone Strategy, Students' Ability in Writing Analytical Exposition Text*

This research was intended to find out the empirical evidence of the students' ability in writing Analytical exposition text by using Fishbone Strategy at the tenth grade of MAS Jamiyatul Al-wasliyah Tembung. This research was experimental research. The population of this research was all students of class X of MAS Jamiyatul Al-wasliyah Tembung. The samples of this research were taken from 30 students of experimental group (class X-1) and 30 students of control group (class X-2). The instrument for collecting data was a test. After analyzing the data, the writer got; (1) The students' ability in writing analytical exposition text by Fishbone Strategy got the mean 77.40 and standard deviation was 7,21; (2) The students' ability in writing narrative paragraph by using Discussion Method got the mean 66.63 and standard deviation was 7.23. The value of $t_{observed}$ was 7.748 and that of t_{table} was 1.671. So the value of $t_{observed}$ was higher than that of t_{table}. It means that there was significant effect of using Fishbone Strategy on students' ability in writing analytical exposition text.

ACKNOWLEDGMENT

<div align="center">نِم ٱللَّهِ ٱلرَّحْمَٰنِ ٱلرَّحِيمِ</div>

In the name of Allah, the Beneficent, the Merciful. Praise and Gratitude be to Allah for giving the strength and guidance to the writer, so that this *skripsi* can be finished accordingly. Peace and blessing be upon the Prophet Muhammad *Shallallaahu 'alaihi wa salaam*, his family, his relatives, and all his followers.

The writing of this *skripsi* entitled "The Effect of Fishbone Strategy on Students' Ability in Writing Analytical Exposition Text at the Tenth Grade of MAS Al-Jamiyatul Al-wasliyah Tembung in 2018/2019 Academic Year". This *skripsi* is written to fulfill one of the requirements to obtain the *Sarjana Pendidikan* degree at the Department of English Education, Faculty of Tarbiyah and Teachers Training, State Islamic University of North Sumatera.

The writing this *skripsi* is actually a miracle for me since it was firstly regarded as a task would be very hard to do. However, it has now been denied since this *skripsi* has finally been written. Then, I would like to thank Allah *Subhaanahu Wa Ta'ala* for His Blessing given to me so that the writing of this *skripsi* has been finished without any meaningful problem. Additionally, the writer is grateful to the following for their supports and helps.

1. **Dr. Amirruddin Siahaan, M.Pd** as the Dean of Faculty of Tarbiyah and Teacher Training State Islamic University of North Sumatera.

2. **Dr. Sholihatul Hamidah Daulay, S.Ag, M.Hum** the Head of English Educational Department and my first advisor who has given suggestion, correction, beneficial opinion and encouragement in process of writing this skripsi.

3. **Utami Dewi, S. Pd, M. Hum** as my second advisor who has also given suggestion, correction, beneficial opinion and encouragement in process of writing this skripsi.

4. All lecturers in the English Department for teaching precious knowledge, sharing philosophy of life, and giving wonderful study experience.

5. The principal of MAS al-jamiyatul Al-wasliyah Tembung, English teacher and all students of X-1 and X2 class who helped the writer during the research.

6. My beloved parents **Irawan BE** and **Juriah Siregar M.Pd** who always give me support, advice, motivation, help, goodness, care, and all things that I need to finish my study.

7. My beloved sisters Irvi Oktanisa and Putri Maulani Arsi who have supported me in completing my study at Faculty of Tarbiyah and Teachers Training, State Islamic University of North Sumatera.

8. All of my family in PBI-III,and especially for my dear classmates Nadya Nafissah, Lita Ayuningtyas, and Risca Tamara thank you so much for your support and motivation.

9. My best friends Rizky Maulana, Dimas Prasetyo, Tiara Dwi, Egi Rajis, and Mahendra Ilmi who always support each other, sharing the information, accompanied me, entertaining me, and be "crazy" with me until we can finish our final task together.

At last, this *skripsi* is far from being perfect, but it is expected that this skripsi will be useful not only for the writer, but also the readers. For these reasons, constructive thoughts, full suggestions, and critics are welcome to make this skripsi better.

Finally, may Allah *Subhaanahu Wa Ta'ala* receives all their work and kindnesses.
Aamiin.

<div style="text-align: right">

Medan, August 2019
The Writer

Dwi Farroh Zuhainah
NIM. 34.15.4.163

</div>

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

A. Background of Study

Writing is one of english skill which is very important to be mastered. It becomes important because writing is one way to communicate. Writing is the most powerful communication tool you will use today and for the rest of your life. You will use it to share your thoughts and ideas with others and even to communicate with yourself.[1] As it known, writing not easy. Among the skills, writing is must difficult skills to be learn, because its need hard thinking in producing ideas, words, sentences, and paraghraph at the same time. English is also intensively used in international communication, in written as well as in spoken communication. In addition, many book of science and technology, art, and other publish issues are written in English. That mean we have to master writing because all the information relating to knowledge already achieved can be expressed by writing. So that, english learn from elementary level up to university.

In reality, students' writing ability is relatively low, based on the writer's experience during her teaching practice in senior high school and observation of the writer. The data showed that from 35 students only 5 students that pass the Minimum Competence Criteria (KKM) students; ability of such skill was quite low, especially in writing analytical exposition. Although, the theory of text was explained in several times, most of them were

---

[1] Carrol,et al . 2001. Pretince Hall: *Writing and Grammar; Communication in Action*, New Jersey: Prentice Hall.P.3

hard to understand the content and showed the uninteresting feeling when teaching and learning process.

The writer found that there are some causes that make the students low in writing skill. The students are lack on vocabulary, structure, technique, literature, and ideas, even some of themin writing. They seldom practice to write but they don't know how to start it, how to systematize the writing and organize the ideas. And the teacher just taught the theory and focus on grammar. Moreover, the students still have lack achievement in writing, the teacher still use the same method. So, the students did not get the enhancement.

Based on the researcher observation, the students were not interest and looked bored in english class, some of them noisy and did another activity, rather than paid attention and explanation to the teacher. Besides, the students were also passively involved in teaching and learning process.

The condition of students' ability in writting skills was supported by the teacher statement, she said, "Kemampuan siswa-siswi di sekolah ini dalam hal menulis memang masih kurang apalagi dalam menganalisa teks, mereka terkadang masih bingung ketika disuruh untuk menganalisa meskipun mereka tahu topiknya. Itu mungkin disebabkan oleh minimnya vocabulary siswa-siswi dan strategi yang itu-itu saja membuat mereka dalam menulis banyak melakukan kesalahan dan sulit menemukan ide-ide dalam menulis". Teacher statement was supported by the one of the

student who has interview, She said "Kami sebenarnya kurang paham itu exposition apalagi disuruh untuk menganalisa kami bingung".

To solve the problem the teacher need to find out the new strategy. There so many strategy which can use to make the students have better ability in teaching and learning process. One of them is fishbone strategy. By applying this strategy, it is get expectation to improve students' ability in writing especially in writing analytical exposition text.

A fishbone diagram is type of graphic organizer the used to explore the many aspects or effects of a complex topic, helping the students to organize their thoughts in a simple, visual way. If the topic, and then obtaining more details on each of these ideas, use a fishbone diagram as your graphic organizer. The process of creating fishbone diagram helps the student focus on topic, requires the students to review what they already know in order to organize that knowledge, and helps point out the areas where the students must investigate more.

Fishbone strategy use to determine the casual relationships in a complex idea or event. This organizer helps students understand how a central theme can have numerous related ideas.[2] It is an effective strategy for classroom management, focusing attention, and motivating students to increase participaation in learning. This strategy will motivate the students to concrete and make them easier to learn.

---

[2] McKnight,2010. *The Teacher's Big book of Graphic* . Organizers,USA,A wiley Imprint. P.46-47.

This strategy use an orderly, easy-to-format the ideas. The students are able to focus the group on the big picture as possible causes or factors influencing the problem or need. And increase process of knowledge. So that, the writer think this strategy will answer the students' difficulty in writing.

Based on explanation above, the teacher must use the suitable and effective strategy to solve the students' problem in writing ability especially in writing analytical exposition text. Therefore, the writer assumes that teaching by applying Fishbone Strategy will be effective to develop their writing ability, especially in writing analytical exposition.

Based on above issues intend to conduct research on **" The Effect of Fishbone Strategy on Students' Ability in Writing Analytical Exposition at The Grade 10th Student of MAS Al-Jamiyatul Alwasliyah Tembung in Acedemic 2018/2019 year".**

B. The Identification of the Study

Based on the background of the study above, it could be found that there were some problems in english teaching and learning especially in writing ability at 10th grade of MAS Al-Jamiyatul Alwasliyah Tembung. They came from students and teachers' factor:

1) One of the factors coming from the students concerned with the students' low interest. It could see from the classroom situation.

2) Many of them seldom do the homework, some of them got sleepy and did not pay attention in the teaching-learning process.

3) Besides, the students' writing ability of analysis exposition text was low. In writing, they often lacked of vocabularies, had a lot of mistakes, and lacked of ideas.

4) Furthermore, the factors coming from the teacher were the strategy that she used not support and interesting. So that the teaching-learning was bored.

C. Limitation of Problem

From the identification of the problem that occured in 10th grade of MAS Al-Jamiyatul Alwasliyah Tembung above, it can be seen that there were many problems related to the students' ability in learning writing. So, there are many strategies which can be used to help the teachers in teaching, especially in teaching writing. This study will focus on seeing the effectiveness of fishbone strategy to improve the students' writing ability, mainly writing analytical exposition text.

D. The Research Problem

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

Is there any significant effect of fishbone strategy on students' ability in writing analytical exposition text?

E. The Objective of the Study

In line with the problem, yes there are any significant effect of fishbone straategy on students' ability such as they are able to focus on the group of the

possible causes or factor that influence the problem or need and which can provide the students chance to be more active in classroom.

F. **The Significance of the Study**

The result of this study was expected to contribute either the theories or practices for :

1. Theoretically

    a. The researcher as reference to conduct the research related to fishbone writing strategy.

    b. The other researcher who want to conduct the same research in applying Fishbone strategy in teaching writing analytical exposition text.

2. Pratically

    a. The english teacher as the source of learning to improve the students' ability in writing analytical exposition text.

    b. The student get increasing the quality of writing analytical exposition text.

CHAPTER II

THEORETICAL REVIEW

A. Theoretical Framework
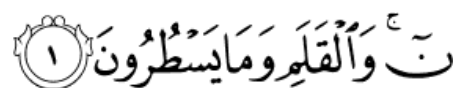
The conduct the research, there are some theories are needed to explain some concepts or term that applied in the research concerns. The concepts must be clarified to avoid ambiguity and misunderstanding. The following conceepts are important to explain that the writer and the reader will have the same perceptions of them.

1. Ability

Students learn to increase their ability in any case and learn to live, because life is meaningless 'without learning'. Writing ability refers to the students' ability to engage in writing as a complex process of writing (pre-writing, drafting, revising, editing) and it's finished product. Raison suggest that in introducing various written text types in teaching writing, teachers need to show the students not only preparing, drafting or revising stages but also editing in the process of writing.[3]

2. Writing

In the holy Al- Qur'an, writing also important skill should be learned and there is verse that state the existence of writing that be stated in Al-Qur'an. T**hat is surah Al-Qalam:1**

نٓ وَٱلۡقَلَمِ وَمَا يَسۡطُرُونَ ﴿١﴾

---

[3] Raison, G. (2004). *Writing Resource Book*. Victoria: Heirumman. P.88.

" **Nun. By the pen and by what they (the angles) write (in the Records**

of men). (Al-Qalam:1)[4]

Based on those verses, Allah SWT explained that He taught human being by pen (qalam). Discovery of pen and writing are the greatest gifts from God. By writing, one generation can transfer their knowledge to the next generations. It shows the tool of writing and writing itself have important roles.[5]

Writing is one of the ways of communication which is use express idea,opnion,experience and information. Writing is linguistic competence that is expressed in written form. It is a medium of communication which represent by using the inscription of sign and symbol.[6]

People do not quit of writing, not only for formal puposes such as for work or study, but also they writing when send electronic messages for other people,writing their diaries,or updating their status on media social. Those are verifying that writing has become a need of human's life.

- **The Assessment of the Writting**

In order to know the students' ability in writing an analytical exposition text,there are some criteria that must be considered,namely organization (the generic structure of analytical exposition text) language use (the

---

[4] Departemen Agama RI *Al-Qur'an Dan Terjemahanya*, PT. SYGMA EXAMEDIA ARKANLEEMA.P.564

[5] M. Taquiddin Al-Hilali and M. Mukhsin Khan, (1996), The Noble Qur'an, (Madinah Maktaba Darussalam),p.774

[6] Pardiyono. 2007. *Pasti Bisa, teaching Genre-Based Writing*. Yogyakarta : Andi Press. P.222.

linguistic features of analytical exposition) and mecchanic (preposition, articles, punctuation, capitalization, and spelling). These criteria as described specifically in scoring analytical exposition text as follows:

1. Audience and purposes
2. Organization
3. Elaboration
4. Use of language

3. Kinds of Text

Written text must have purpose; the information, messages or the ideas should sober in effective form (rhetorically structured, grammatical patterns). Genre covers in two distinctive dimensions in teaching and learning writing. First genre is a kind of text or writing work itself. It views that the language must be related to sosial function (a certain socil environment and place where and when the text is used). This will vary due to different context and situation. Second, genre as a process or strategy of how writing work is develop, taught and learned. This will guide the writer systematically in order to be able to produce the writing work itself.[7]

According Pardiyono, genre is a type of text that serves as a frame a reference so that a text can be written effectively: effective in terms of goals accurancy, the selection and arrangement of text elements,and

---

[7] Dirgeyasa, 2014. College Academic Writing : *a genre based perspective*.Medan Estate: Unimed Press. P.12

precision in the use grammar.[8] There are eleven types of text. They are description, recount, narrative, procedure, explanation, discussion, exposition (hortatory and analytical), news item, report, anecdote, and review.

4. Analytical Exposition

Exposition text is the appropriate type of the text so that opnion can be delivering effectively to the reader. Exposition text can be devided into two, analytical exposition (argue that something is in case) and hortatory exposition (to argue that something should be or ought to be).

Analytical exposition text is akind of text that argues something is the case. Analytical exposition like a descriptive argument, in which the writer main's purpose is to persuade the reader to believe something by representing one side of the argument and doesn't give suggestive argument.

1) The Rhetorical Structure of Analytical Exposition Text

a) Thesis- containing topic and brief statement of the writer's position related to the topic.

b) Argument- describing the reality according to the writer's opnion.

c) Conclusion – reiteration (restartement), restates speaker or writer'sposition.

---

[8] Pardiyono. 2007. *Pasti Bisa, teaching Genre-Based Writing*. Yogyakarta : Andi Press. P.2.

2) The Grammatical Patterns of Analytical Exposition Text.

    a) Focus on generic human and non-human.

    b) Use of simple present tense.

    c) Use of relational processes.

    d) Use of internal conjuction to state argument.

    e) Reasoning through causal conjunction or normalization.

3) The Example of Analytical Exposition Text.

School

I think children should go to school. It is a place where they can leaarn,make friends and have fun.

If they don't go to school children may never learn to read and write. This means that they might not get a good job or any job at all.

At school children can learn about lots of different things like math,science, famous people and different countries. At school you can also play sport and go on excursions to visit interesting places.

That's why children should go to school. [9]

    a) The Rhetorical Structure Text Analysis of "School".

The rhetorical structure of the text above can be formulated into thesis, argument, and conclusion as following:

    1. **Thesis,** contains a writer's statement of his/her position about a certain topic or problem.

---

[9] Knapp, Petter&Megan, watkins. 2005.*Genre,Text,grammar: technologies for teaching and Assessing Writing.* Sydney : UNSW Press. P.194.

a) I think children should go to school. It is place where they can learn,make friends and have fun.

2. **Argument,** contains description of facts to support his/her statement in the thesis.

   a) If they don't go to school children may never learn to read and write. This means that they might not get a good job or any job at all.

   b) At school children can learn about lots of different things like math, science, famous people and different countries. At school you can also play sport and go on excursions to visit interesting places.

3. **Conclusion,** reiteration (restatement) restates or writer's position.

   a) That's why children should go to school.

The key to successful teaching and learning is to employ a wide variety of strategies. One of strategy on graphic organizer is Fishbone Strategy.

1. Fishbone Strategy

McKnight stated that fishbone also known as the cause and effect diagram or Isikawa diagram. It's named after Japanese inventor, Kaoru Isikawa use the fishbone to determine the casual relationships in a complex

ideas or event.[10] The organizer helps the students understand how a central theme can have numerous related ideas.

Fishbone strategy is a kind of strategy that uses cause and effect diagram introduced by Kaoru Ishikawa. It is called a fishbone diagram because the form of this diagram is like skeleton of a fish. It uses a diagram-based approach for thinking through all of the possible causes of a problem. This strategy helps people to carry out one problem through analysis of the situation. It will show the causes of a particular effect and the relationshop between causes and effect each other.

To effectively use this greaphic organizer, begin with result and then analyze the contributing causes. For the students to better understand the different compenents of this graphic organizer, model its use through large-group discussion prior to the students' independent application.
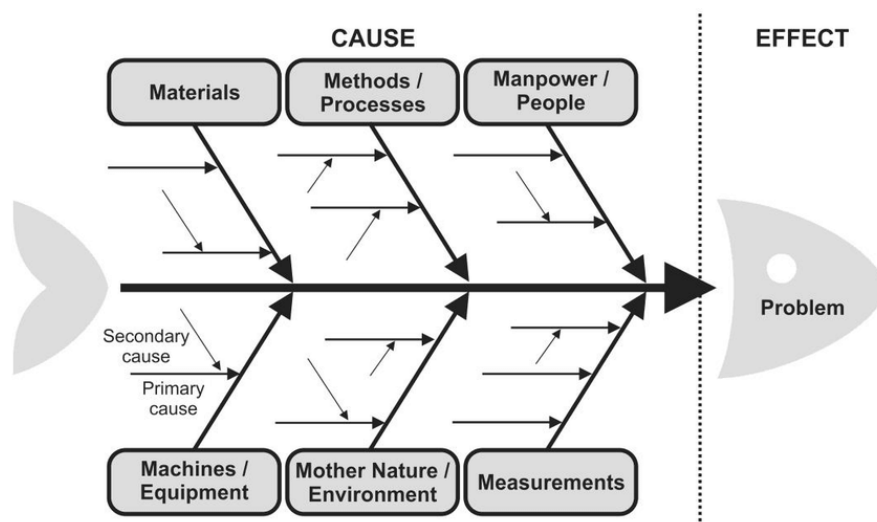
Image 1. Fishbone Strategy

Fishbone strategy (cause and effect diagram) is a tool that useful for identifying and organizing the known or possible causes of quality, or lack of

---

[10] McKnight, Kathereine S. 2010. *The Teacher's Big book of Graphic Organizers*,USA,A wiley Imprint. P.121-127

it. The structure provided by the diagram helps the students think in very systematic way. It called fishbone diagram because of the way it's looks:

a) Guiding Principles for Fishbone Strategy

Garvey argued fishbone strategy can help to construct some factors that are associated with a particular topic and show how they can relate together.[11] This strategy is appropriate to use in writing analytical exposition text because analytical exposition text is one of the argumentative text. Fishbone strategy helps the students to determine the causes and the effect. The topic of this text will become the effect and the arguments are the possible causes of the effect.

There are four steps in implementing fishbone strategy. They are as followed:

1. Identity the main problem that will become the thesis of hortatory exposition text and put it on the head of the fishbone.

2. Identity the main factors that caused the problem and put it on the bone of the fish.

3. List the sub problems in each main factor.

4. Analyze the diagram and write text based on the diagram.

b) Advantages and Disadvanteges' of Fishbone Strategy

---

[11] Harmer, J. 2001. *How to Teach English Language Teaching.* New york: Longman. P.96

Gupta & Russ said that there are some advantages and disadvantages' of using fishbone strategy. [12]

a) The advantages' are:

1. The fishbone strategy uses fishbone diagrams permit a thoughtful analysis to avoid any possible root causes for a need.

2. The fishbone strategy is easy to implement and creates an easy way to understand visual representation of the causes, categories of causes, and the need.

3. By using a fishbone strategy, the student are able to focus on the group of the possible causes or factor that influence the problem or need.

4. Even after the need has been addressed: the fishbone diagram shows many areas of weaknesses that can be resived.

b) The disadvantages of using fishbone strategy are:

1. The simplicity of the fishbone diagram may make it difficult to represnt the truly interrelated nature of the problem and causes in some very complex situations.

2. Unless we have an extremely large space on which to draw and develop the fishbone diagram, we may find

---

[12] Gupta. K, Sleezer, C.M,Russ. 2007. *Practical guide to Needs Assessment*. Eft:D.F.A Pfeiffer. P.144

that we are not able to explore the cause and effect relationshops in as much detail as you would like to.

Based on statement above, fishbone is one of the strategies in teaching which can provide the students chance to be more active in classroom. It also focus on causes rather than symptoms of a problem and this diagram emphasizes group communication and brainstroming and mainly stimulates discussion.

5. Discussion Method

Discussion is one of the method of teaching in which the students will do discussion on learning. They will devide into some groups (group working) small or large groups. Discussion can provide the teacher with an opportunity to assess the students understanding a topic. The students were explore ideas thoroughly when they introduce their own observation and question.

1. Guiding principles for Discussion Method

   1. Before discussion

      a) Define the obejectives of the discussion.

      b) Explain the discussion format to the class.

      c) Define terms and state assumptions.

   2. During Discussion

      a) Asking question.

      b) Monitor students in group.

   3. After Discussion

a) Teacher give comment and review about the result of group work.

b) Discuss the discussion activity.

2. Advantages Discussion Method

There are some advantages of implementation discussion method, they are:

1. Emphasis on learning instead of teaching

Discussion emphasizes pupil-activity in the form of discussion, rather than simply and lecturing by the teacher.

2. Participation by Everybody

In this method, everybody participates in the discussion, and therefore thinks and express himself.

3. Development of the Democratic Way of Thinking

Everybody cooperates in the discussion, and the ideas and opnions of everybody are respected. Thus, there is a development of democratic way of thinking arriving at decision.

4. Training in Reflective Thinking

Students, during the causes of discussion, get training in reflective thinking, which leads to deeper understanding of the historical problem under discussion.

B. The Relavant Studies

There are many researcher had applied Fishbone strategy in different field of their researchers. They proved the application of fishbone strategy had a good effect in learning process especially in teaching writing:

1) Nasir (2012) provided that the application of Fishbone strategy had a good effect in teaching English in Indonesia. A tool organizer for learning EFL reading. The students' responses of attitudinal aspect revealed that the students felt easy in learning reading that could enchance their motivations to join reading class by using fishbone strategy because fishbone diagram accommodated important information from the text. He suggested that fishbone diagram be one of the tool organizers that is suitable to teach reading subject. Concerning the EFL reading curriculum, fishbone diagram is the most appropriate tool organizer for teaching cause-effect pattern organization. And he found that there is significant improvement from the students' writing taught by fishbone method. [13]

2) Listiani (2015) applied fishbone strategy in her experimental reasearch on the grade XI of SMAN 3 Mataram in academic year 2014/2015.[14] She found that fishbone strategy gave asignificant effect in writing hortatory exposition text. There were two groups in this design,experimental group and control group. Data was analyzed by using t-test formula and t-table.

---

[13] Nasir. 2012. Fishbone Strategy in teaching English Indonesia : *A Tol Organizer for learning EFL Reading.* Lampung: State Islamic Institute of Raden Indah.

[14] Listiani (2015). *The Effect of Fishbone Strategy on Students's Ability in writing Hortatory Exposition Text of Grade XI SMA N 3 Mataram*. P.27-30.

It strategy made the improvement of the students' achievement in writing. The finding showed that t-test value was higher than t-table.

Related to above those researcher above, the writer study try to apply the same strategy, in order to identify the effect of implementation Fishbone strategy on students' ability in writing analytical exposition text.

C. Conceptual Framework

Writing has been us for long time,and now days its very important to learn. In English, writing is one of four language skills (listening, reading, writing, and speaking). Writing is one of the important elements in learning process and it's requires a good experience, time, strategy, oppurtunity, energy, training, hardwork, and special skill.

Writing is one of the fourth skills in teaching-learning process which should be mastered by the students. Through writing, the students can express and convey their ideas, feelings, intentions and informations each other. In writing there are some kinds of genre: one of them is analytical exposition text. For senior high school students, they are expected to be able to write various genres.

However, in English teaching and learning process, writing is considered the most difficult skill for students who have lack motivation to write. Students are less enthusiastic in writing, even some of them have some ideas on their mind how to write an analytical exposition text but they did not know how to express them in writing.

In this case, the students still cannot write a good analytical expostion text in accordance with its generic structure. They are still

having low comprehending to arrage sentences become a good text with the right structure. To solve those problem above, these are two techniques which can attract the students' interest in writing activity. Namely fishbone strategy and discussion method.

Fishbone strategy is a tool that is useful for identfying and organizing the known or possible causes of quality, or the lack of it. It is called Ishikawa diagram or Fishbone fiagram because of the way it looks. This strategy helps people to carry out one problem through analysis of the situation. It will show the causes of a particular effect and the relationship between causes and effect each other. And discussion method is doing discussion on learning. In this method, everybody participates in the discussion, and therefore thinks and expresses himself. Discussion can provide the teacher with an oppurtunity to assess the students understanding a topic. The students were explore ideas throughly when they introduce their own observation and question.

In this research the writer propes fishbone strategy because it can improve student ability in writing analytical exposition text. Fishbone strategy will be improved students' ability in writing analytical exposition text. It helps the students to organize their writing by mapping their ideas before elaborating them. Besides that, it can encourage the students' motivation in developing their writing skill because of the simplicity and easy writing technique.

So, that why fishbone strategy is an effective and optimal to be applied in order to increase students' motivation, attention, and ability in writing analytical exposition text.

D. Hypothesis

Based on the explanation from theoritical Framework and Conceptual framework,the writer formulates an alternative hypothesis as follow :

Ha   : There is a significant on the students' ability in writting analytical exposition text using fishbone strategy.

Ho   : There is no a significant on the students' ability in writting analytical exposition text using fishbone strategy.

CHAPTER III
RESEARCH METHOD

A. Research Design

This study was conducted by using experimental design. In order to find out the effect of fishbone strategy on students' ability in writing analytical exposition text.

An experimental design is a scientific investigation in which the researcher manipulates one or more independent variables, controls any other relavant variables,and observers that effect of the manipulations on the dependent variable.[15] In this study, there are two variables,fishbone strategy as independent variable and writing as dependent variable.

The sample was devided into two groups. They are experimental group that was taught by applying fishbone strategy and control group that was taught without fishbone strategy. Pre-test and post-test was give to both groups. The pre-test was give before treatment and post-test was give after the treatment.

---

[15] Ary,D, jacobs L.C , Sorensens, C.,& Razavieh,A. (2010). Introduction to research in Education, Canada: Wadsworth. P.276

Table 3.1 Research Design

Group	Pre-Test	Teaching	Post-Test
Experimental Group	✓	Fishbone Strategy	✓
Control Group	✓	Discussion	✓

B. Population and Sample

1. Population

Population is general region consists of : object or subject which have quality and specific characteristic that has been determined by the researcher to be studied to get the conclusions.[16]The population of this research is the students of 2018/2019 academic year of Mas Al-Jamiyatul Alwasliyah Tembung. Which consist of three classes. So, total of students is 90. The population can be seen in the table 3. 2.

Table 3. 2.

The Population of Research

No.	Class	Population
1	X IPA 1	30

---

[16] Sugiono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatof, dan R&D*, (Bandung: Alfabeta Bandung, 2018), p. 117

.		
2	X IPA 2	30
.		
3	X IPA 3	30
.		
	Total	90

2. Sample

Sample is the part of number and characteristics possessed by the population. If population have a large mount and researchers have limitations to learn all thing that was exists in the population, the researcher can use a sample of the population and the conclusions can be applied to the population.[17]

According to Arikunto, we can take the subject as sample between

10-15 % or 20-25% if the number of subject is large.[18] The sample of this research are X-1 and X-2 which consist of 30 students per class. This sample taken by using simple random sampling technique. The sample can be seen in the table 3. 3.

---

[17] *Ibid.*, p. 118

[18] Arikunto, Suharsimi, *Procedure of research*,Jakarta: Rineka Cipta,2002,p.136

Table 3. 3.

The Sample of Research

No.	Class	Sample
1.	X IPA 1	30
2.	X IPA 2	30
	Total	60

C. The Instrument of Collecting Data

The instrument of collecting data is really important in every scientific research. In this research, the research used writing test as the instrument of collecting data and it was administered to both experimental and control groups. The writing test contained some instruction for guiding students to make an analytical exposition text. The writing test was given in order to find out the score of experimental and control group and to see whether the students' writing ability after being taught using fishbone strategy in experimental group was significant or not.

D. The Procedure of Collecting Data

1. Pre-test

Pre-test was give to know how far the students' ability in writing analytical exposition text before being taught by Fishbone strategy. The

pre-test will be given to both of groups (experimental group and control group). The students were asked to write an analytical exposition text.

2. **Treatment**

After giving the pre-test,the students was givethe treatment. The experimental group receives the reatment through Fishbone Strategy,while the control group without treatment. The treatment was give to the experimental group.

3. **Post-test**

Post-test was give to both of the experimental and control group. After conducting the treatment in order to get the mean score between experimental and control group. Morever, it purposes to know whether fishbone strategy has a significant effect on the students' ability in writing explanation test or not.

Table 3. 4
Procedure of Research in Experimental Group

Teacher's Activity	Students' Activity
The teacher greets the students	Students give response to theteacher
The teacher intoduces and gives motivations related to the materials.	Students response.
The teacher gives an example of analytical exposition text (Laptop as a students's friend) and explains to the students about social functions, generic structures, and grammatical features of analytical exposition text.	Students listen to the teacher

The teacher devides the students into some groups.	The Students sit in group.
The teacher asks them to make analytical exposition text based on the outline.	The students write an analytical exposition text.
The teacher ask them to share their writing to other groups.	The students present the analytical exposition in front of the class.
The teacher and the students discuss the final writing of analytical exposition text.	
The teacher and the students conclude the lesson together	
Teacher give feedback and reinforcementto the students about analytical exposition text.	Students get feedback and reinforcement about Analytical exposition text from the teacher.
The teacher give motivation to the students who still get difficulties in writing analytical exposition text.	Students listen to the teacher.
Teacher tell the students to learn about analytical exposition text more at home.	Students response teacher.
Teacher closes the meeting by saying goodbye.	

E. Technique of Collecting Data

Collecting of the data was analyze by using some procedure:

a. Checking the students' answer

b. Identifying the students' answer

c. Scoring the students' answer based on the correct and wrong answer

d. Listing the score into different table between experimental and control group

e. Calculating the total score of post-test

f. Finding the mean score of pre-test and post-test

g. Finding the standard deviation

h. Testing hypothesis by applying T-test

H. The Technique of Analyzing Data

In this research the data was form experimental and control group.

The data will be analyzed with **"t-test for independent sample"**.

The procedures of analyzing the data as the follow:

1. Score the pre-test of experimental and control group.

2. Score the post-test of experimental and control group.

3. Compare the mean of two groups

4. Analyze the data by using t-test formula.

T-test formula is:

$$t = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{\frac{\left[(n_1-1)s_1^2 + (n_2-1)s_2^2\right]\left(n_1+n_2\right)}{(n_1+n_2-2)(n_1 n_2)}}}$$

Where:

t : the value of t observed

X_1 : the mean of experimental group

X_2 : the mean of control group

$£X_1$: the sum of students scores in post test experimental

$£X_2$: the sum squared of students scores in post0test experiment

N_1 : the total numbers of experimental group

N_2 : the total number of cintrol group

G. The Statistical Hyphothesis

The statistical hypothesis of this study was formulated from hyphotesis which is symbolized as the following:

$$H0 : \mu \, x \, 1 = \mu \, x \, 2$$

$$Ha : \mu \, x \, 1 < \mu \, x \, 2$$

Where :

H0 : alternative Hyphothesis

Ha : Null Hyphothesis

μ : mean of population

x : mean of sample

CHAPTER IV

DATA ANALYSIS AND RESEARCH FINDINGS

A. The Data

The research had been conducted since July 5th of 2019 to August 8th of 2019. They involve pre-test, twice times treatment and post-test. To find out the effect of using Fishbone Strategy, the researcher identified some result, they are: The score of students before treatment, the differences between pre-test and post-test score of students and from the differences of students' atmosphere between the students who are taught by using Fishbone and the students who are not taught by using fishbone in teaching and learning process, they are in teaching writing skill, especially in MAS Al-Jamiyatul Al-Wasliyah Tembung.

The researcher did an analysis of quantitative data. The data is obtained by giving test to experimental class and control class after giving a different treatment both classes. The subjects of this research were divided into two classes. They are experimental class (XI-IPA 1) and control class (XI IPA 2).

Data of the students' achievement in reading comprehension was taken from the test result which has given to 60 stuedents of MAS Al-Jamiyatul Al-Wasliyah Tembung: 30 students from XI-IPA 1 as experiment class and students from XI-IPA 2 as control class. Here the score that showed the result test for experiment class (XI-IPA 1) which taught by using Fishbone Strategy and control clas (XI-IPA 2) taught by using Discussion Method.

Table 4.1
Research Result Data Pre-Test

Statistic Source	Group of Learning	
	Experimental Class (Fishbone Strategy)	Control Group (Discussion Method)
N	30	30
$\bar{X}$	51.33	52.533
S	9,746	7.200

	Research Result Data Post -Test	
Statistic Source	Group of Learning	
	Experimental Class (Fishbone Strategy)	Control Group (Discussion Method)
N	30	30
$\bar{X}$	77,400	66.33
S	7.281	7.067

From the data were collected the lowest score of pre-test was 40, and the highest score of pre-test was 66 and the mean of pre-test was 51.33. On the other hand the lowest score of post-test was 66, and the highest score of post-test was 88 and the mean of post-test was77.40. Whereas in control group, showed the lowest score of pre-test was 44, and the highest score of pre-test was 66 and the mean of pre-test was 52.53. On the other hand the lowest score of post-test was 56,

and the highest score of post-test was 76 and the mean of post-test was 66.33. (See

Appendix I, J).

Based on the explanation above, it shows that thestudent's score in experimental group was higher than student's score in control group, where in

pre-test (53.46) and the score in post-test (77.26). The total score of the mean score in experimental and control group showed that there was significant effect in improvement of student's score between pre-test and post-test.

B. Description of the Data

1. The Students' Ability in Writing Analytical Exposition Text by Using Fishbone Strategy

The students' Achievement in reading comprehension of pre-test of the experiment class (XI-IPA 1) show the lowest score 40 and the highest score is 66. The students' achievement in reading comprehension of post-test of the experiment class (XI-IPA 1) show the lowest score is 66 and the highest score is 88. The complete data about the students' ability in writing skill by using fishbone strategy see on the following table:

Table 4.2

The List of Pre-Test and Post-Test Scores of Experiment Class

NO	Initial Name	Pre Test	Post Test
1	AMP	66	80
2	AD	44	80
3	ADH	40	80
4	AS	50	88
5	BS	40	76

6	DPA	46	78
7	DPS	50	66
8	ES	66	78
9	FR	44	66
10	IAA	66	80
11	K	50	80
12	LS	40	66
13	LS	50	78
14	M	66	88
15	MH	50	80
16	M	44	80
17	MARH	50	88
18	MIS	40	78
19	NAMS	44	66
20	N	66	78
21	NIB	40	66
22	PESN	50	66
23	RA	50	78

24	RNF	50	80
25	RA	66	78
26	SS	40	66
27	SR	50	88
28	SM	66	80
29	SN	50	78
30	SR	66	88
	Mean	**51,333**	**77,400**
	SD	**9,746**	**7.281**
	Variant	**94,988**	**53.007**

2. **The Students' Ability in Writing Analytical Exposition Text by Using Discussion Method**

The students' Ability in writing skill of pre-test of the control class (XI-IPA 2) show the lowest score 44 and the highest score is 66. The students' ability in writing skill in of post-test of the control class (XI-IPA 2) show the lowest score is 56 and the highest score is 76. The complete data about the students' ability in writing skill by using fishbone strategy see on the following table:

Table 4.3

The List of Post-Test and Post-Test Scores of Control Class

NO	Initial Name	Pre Test	Post Test
1	AIN	50	68
2	AAY	50	66
3	AAL	48	60
4	BDP	44	66
5	CSH	56	60
6	DP	56	68
7	DF	60	76
8	DHL	48	66
9	EWN	48	56
10	EF	44	60
11	FA	50	56
12	IFIS	50	56
13	KAL	56	66
14	LAN	50	76
15	M	50	76
16	MA	50	66

No	Code		
17	MIN	44	56
18	MRR	44	66
19	MSR	44	56
20	NA	50	60
21	NF	50	66
22	NJP	60	76
23	NAN	60	66
24	PAKS	50	66
25	QA	66	76
26	RP	66	76
27	RL	56	66
28	SS	44	66
29	SRAL	66	76
30	S	66	76
	Mean	**52.533**	**66.33**
	SD	**7.200**	**7.06**
	Variant	**51.843**	**49.954**

C. **Data Analysis**

1. **Analysis Requirement Testing**

In this activity, the researcher explained about narrative text. The researcher asked the students to read a narrative text, so they could comprehend a text. The purpose of this activity was to measure the students' reading comprehension.

After implementing the test, the researcher assessed the result of the students' reading. From the result she could calculate mean, variant, standart deviation, standard error mean of the score of the students' reading result used the following:

a. Normality Testing

Normality testing was used to determine whether was normal or no, the result of the normality testing is described below. (See Appendix H)

Table 4.4
Normality Testing Pre-Test

Data	L_o	A	L_{obs}	$L_{t able}$	Conclusion
Experimental Class	0	.05	0.288	0.1618	Normal
Control Class	0	.05	0.271	0.1618	Normal

From the table above, I can be seen L_o = **0.225** significant and L_{t} = **0.1618**. it can be concluded that the data distribution was normal. So, it can be concluded that the data of the students' achievement reading comprehension is **normal**.

Normality Testing Post-Test

Data	A_o	L_{obs}	L_{table}	Conclusion
Experimental Class	0.05	0.194	0.1618	Normal
Control Class	0.05	0.184	0.1618	Normal

From the table above, I can be seen L_o = **0.225** significant and $L_{t=}$ **0.1618**. it can be concluded that the data distribution was normal. So, it can be concluded that the data of the students' achievement reading comprehension is **normal**.

b. Homogenity Testing

Table 4.5
Homogenity Testing Pre-Test

Data	F_{obs}	F_{table}	Conclusion
Experimental	1.53	1.679	Homogenous
Control			

From data above F_{obs} = 1.53 is compared with F_{table} is determined at real α = 0,05 and the same numerator dk = N-1 = 30-1 that was exist dk numerator 29, the denominator df = n-1 (30-1= 29). Then F_{table} can be calculated F(0.05=1.679). So F_{obs} < F_{table} or (1.53<1.679) so it can be concluded that the variant is **homogenous.**

Homogenity Testing Post-Test

Data	F_{obs}	F_{table}	Conclusion
Experimental			
	1.06	1.679	Homogenous
Control			

From data above F_{obs} = 1.06 is compared with F_{table} is determined at real α = 0,05 and the same numerator dk = N-1 = 30-1 that was exist dk numerator 29, the denominator df = n-1 (30-1= 29). Then F_{table} can be calculated F(0.05=1.679). So F_{obs} < F_{table} or (1.06<1.679) so it can be concluded that the variant is **homogenous.**

3. Hypothesis Testing

Table 4.4
Hypothesis

Data	T_{obs}	T_{table}	Conclusion
Experimental Class			There is significant effect of using
	7.748	1.671	fishbone strategy on the students' ability writing
Control Class			

The result of hypothesis of this study can be shown from the table below:

From the computation above, it can be seen that $t_{obs} = 7.748$ and $t_{table} = 1.671$, $t_{obs} > t_{table}$. This mean hat the hypothesis is accepted on the level of significant 0,05. The meaning of this result is that the students' who where taught by using fishbone strategy is better that discussion method in teaching writing skill. After the scores were calculated, I was found that in his study the t_{obs} is higher that t_{table}. It can be seen as follow:

$t_{obs} > t_{table}$ ($\alpha = 0,05$) with df 60

$7.748 > 1.671$

From the result above, it showed that the alternative hypothesis (H_O) was rejected. (See Appendix I)

So, the hypothesis testing in this research, it is used two average similarity test by using statistic, as follow:

Where:

$\overline{X_1}$ = average value of sample group owning highest

$\overline{X_2}$ = average value of sample group owning lowest score

S = Merger deviation

$$S^2 = \frac{(n_2-1)S_1^2 + (n_2-1)S_2^2}{n_1 + n_{2-2}}$$

$n_1 = 30$

$n_2 = 30$

$\overline{x_1} = 77.400$

$\overline{x_2} = 66.333$

$(S_1^2) = 53.007$

$(S_1^2) = 49.954$

$$s^2 = \frac{(30-1)53.007+(30-1)49.954}{30+30-2}$$

$$s^2 = \frac{(29)53.007+(29)49.954}{30+28}$$

$$s^2 = \frac{1.537.203+1.448.266}{58}$$

$$s^2 = \frac{2.985.869}{58} = 51.480$$

$$S = \sqrt{51.480} = 7.174$$

$$t\frac{\overline{X_1}-\overline{X_2}}{S\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}} =$$

$$t\frac{\overline{77.400}-\overline{66.333}}{S\sqrt{\frac{1}{30}+\frac{1}{30}}}$$

$$t\frac{11.067}{7.174\sqrt{0.0666}}$$

$$t\frac{14.334}{7.174(0.2580)} = \mathbf{7.748}$$

The coefficient of $t_{observation}$ = 7.748 was compared with t table, where the coefficients of t table for real level α = 0,05 with dk= 30+30−2=58 gained the coefficients of t_{table} = in the coefficient of $t_{observation}$ (7.748) > t_{table} (1.671). It showed that t table is in zero hypothesis rejection (Ho). Thus, the alternative hypothesis (Ha) was accept. It mean that the alternative hypothesis that there is significant of the students' achievement in writing analytical by using fishbone strategy was accepted.

D. Research Finding

The main problems of this research is the students' ability in writing analytical taught by using fishbone strategy. This strategy have a positive effect for the students' ability in writing skill. The result of this research shows that the average result of the test of the students' ability in writing skill by using fishbone strategy is higher than the average of the test of the students' achievement in writing skill without using fishbone. This indicate that

application of using fishbone are proven more effective to increase the students' ability in writing skill. The hypothesis above explains that there is a significant to the effect using fishbone strategy on the students' ability in writing skill. Finally, the students that taught by using fishbone strategy get higher achievement that the students' that are taught by using discussion method.

E. Discussion

It was explained in Chapter II that Fishbone Strategy could be an effective way in students' ability in writing analytical exposition text. The students' can write the analytical exposition text by following the Fishbone strategy steps that could guide the based on the generic structure of analytical exposition text help by the fishbone strategy graphic organizer. There was a significant difference on the students' achievement in writing analytical exposition textbetween both groups. The students that were taught by using Fishbone Strategy had higher scores than the students that were taught by Discussion Method. Fishbone strategy helped the students to build a good thinking about some phenomenon surrounding them. And create an outline then the students developed that outline to a good writing of an analytical exposition text.

The scores of the students' pretest either in experimental group or control group is far from enough for KKM. The KKM is 60. After the treatment of Fishbone strategy was given to experimental group and discussion method to control group, it could be seen that there was an increasing score of the students. Almost of the students' can pass the KKM. It can be concluded that Fishbone strategy was succes in increasing the students' score.

The application of fishbone strategy and discussion strategy in writing analytical exposition text were different. In the application of Fishbone strategy, students were required to write the text in the Fishbone graphic organizer. The graphic organizer can

assist them to write the argument neatly. Meanwhile in the application of discussion method, the students tried to listen to the teacher's explanation about the analytical exposition text based on generic structure and social function. This made them found difficulties because they only listen to the teacher explanation then they tried to write their own text.

As the explanation above, it can be concluded that the defferences in the use of Fishbone strategy was influenced than the use of Discussion method in improving students' writing achievement.

Some previous researchers also had conducted Fishbone strategy to teach writing ability. Nasir (2012) provided that the application of Fishbone strategy has good effect in teaching English in Indonesia: a tool organizer for learning EFL reading. This study involved twenty elemtary school teacher education students of State Islamic Institute Lampung by employing descriptive qualitative design to describe natural or man-made educational phonomena. The students' responses of attitudinal aspect revealed that the students felt easy in learning reading that could enchance their motivations to join reading class by using fishbone strategy because fishbone diagram accommodated important information from the text. It is suggested that fishbone diagram be on of the tool organizers that is suitable to teach reading subject. Concerning EFL reading Curriculum, fishbone diagram is the most appropriate tool organizer for teaching cause-effect text pattern organization.

Listiani (2015) applied Fishbone strategy in her experimental reaserch on the grade XI of SMAN 3 Mataram in academic year 2014/2015. She found that fishbone strategy gave a significant effect in writing hortatory expostion text. There were two groups in this design, experimental group and control group. Data was analyzed by using t-test formula

and t-table. It strategy made the improvement of the students' ability in writing. The finding showed that t-test value was higher than t-table.

Based on the explanation, it can be concluded that Fishbone writing strtegy has significantly affeted students' writing. This strategy was effective to improve writing ability not only in a kind of text, but to some genre of text.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

From the data obtained it is seen that the result of the students' ability in writing analytical exposition text by using Fishbone Strategy is higher than that by using discussion at the tenth grade of MAS Al-Jamiyatul Al-wasliyah Tembung.

Fishbone Strategy is significant to be used in improving the students' ability in writing analytical exposition text. The result of $t_{observed}$ is 7.748. t_{table} is 1.67 ($t_{observation}$ (7.748) > t_{table} (1.671). It means that H_0 is rejected and H_a is accepted. There is a significant effect of fishbone strategy on the students' ability in writing analytical exposition.

B. Suggestion

Based on the conclusion above, the researcher gives some suggestions as follows:

1. To the principal of MAS Al-Jamiyatul Al-Wasliyah Tembung to motivate the teachers, especially English teacher to teach the students by using fishbone strategy, because the method is effectively increase the students' ability in writing analytical exposition text.

2. To the English teacher to use fishbone strategy or one of the alternative method or strategy to increase the student's ability in writing analytical exposition text in English learning.

REFERENCES

Agus setiawan, riki.2014. *Improving students' Ability in writing Hortatory text by using fishbone method on the Eleventh Grade of* class IPA 3 *of SMA m 4 Kota Bengkulu.* Universitas Negeri Bengkulu.

Ary,D, jacobs L.C , Sorensens, C.,& Razavieh,A. 2010. *Introduction to research in Education,* Canada: Wadsworth.

Best, J. W & Kahn, J. V. 2006. *Research in Education (10th edition).*New York:Person Education.

Brow,H. Douglas. 2004. *Language Assessment: Principles and Classroom Practice.* New York: Longman.

Carrol,et al . 2001. Pretince Hall: *Writing and Grammar; Communication in Action,* New Jersey: Prentice Hall.

Departemen Agama RI *Al-Qur'an Dan Terjemahanya*. PT. SYGMA EXAMEDIA ARKANLEEMA.

Devinson,Fred 1985. Test Craft : *A Teacher's Guide to Writing and Using Language Test Specification.* Canada: VISTAinfo.

Dirgeyasa, 2014. College Academic Writing : *a genre based perspective.*Medan Estate: Unimed Press.

Gardner,Howard 1993. Frame of Mind : *The theory of Multiple Intelligences.* USA: Basic Book.

Gupta. K, Sleezer., C.M,Russ. 2007. *Practical guide to Needs Assessment*. Eft: D.F.A Pfeiffer.

Harmer, J. 2001. *How to Teach English Language Teaching.* New york: Longman.

Hornby,gary.2000. *Improving Parental Involvement*. New York: Biddles.Ltd.

Knapp,Petter & Megan,watkins. 2005. *Genre,Text,grammar:technologies for teaching and Assessing Writing.*Sydney : UNSW Press.

Listiani 2015. *The Effect of Fishbone Strategy on Students's Ability in writing Hortatory Exposition Text of Grade XI SMA N 3 Mataram.*

McKnight, Kathereine S. 2010. *The Teacher's Big book of Graphic Organizers*,USA,A wiley Imprint.

Nasir. 2012. Fishbone Strategy in teaching English Indonesia : *A Tol Organizer for learning EFL Reading.* Lampung: State Islamic Institute of Raden Indah.

Pardiyono. 2007. *Pasti Bisa, teaching Genre-Based Writing*. YogyakartaAndi Press.

Raison, G. 2004. Writing Resource Book. Victoria: Heirumman.

Richards, Jack C and Renandya Willy A. 2002. *Methodology in Language Teaching an Anthology of Current Practice.* **Cambridge: Cambridge University Press**

Sommonds,Lorraine,et al. 2013. *Using Fishbone Analysis to Investigate Problems*. Prancis report: University Hospitals Birmingham Foundation trust.

Syafaruddin.2013. Panduan Penulisan Skripsi. Medan: Institut Agama Islam Negeri Sumatera Utara.

Uli, R. Siburian. 2010. *The Effect of Applying 3-2-1 Chart Technique on Students' Reading Achievement*. Journal Of English Language Education.

Varsha, et al. 2015. A review on *: Fishbone Diagram. World of Pharmaceutical research.* India:Maharasta.

APPENDIX A

<div align="center">

Pre -Test

</div>

STUDENT WORKSHEET

1. Write your name, class, and student number on the top

   corner of your answer sheet.

2. You are expected to write an analytical exposition text about "the

   important of learning english" based on your knowledge.

3. Time allotment is 60 minutes.

   Good Luck!

Post -Test

STUDENT WORKSHEET

1. Write your name, class, and student number on the top corner

   of your answer sheet.

2. You are expected to write an analytical exposition text about "Rainbow"
   based on your knowledge.

3. Time allotment is 60 minutes.

   Good Luck!

APPENDIX B
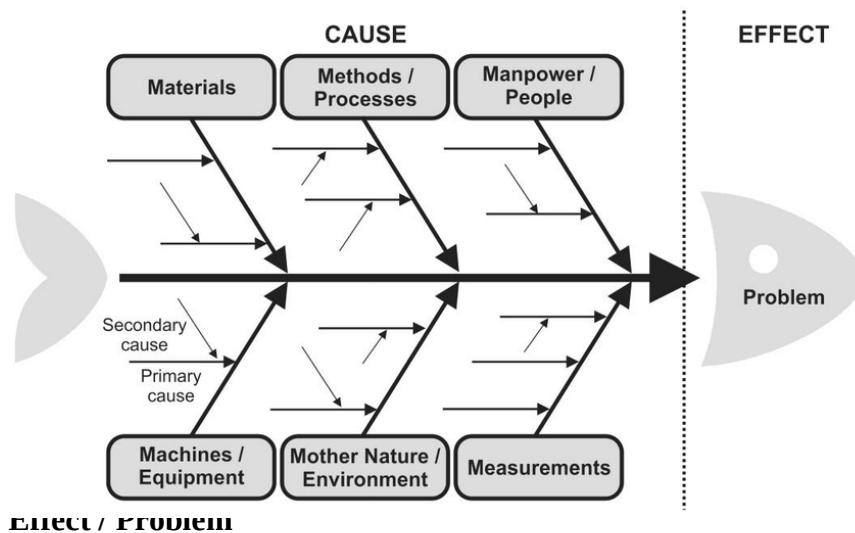
KEY ANSWER OF PRE TEST

The Important of Learning English

It is well-known that language is the means by which we share our thoughts and ideas with others: it is our primary source of communication. There are thousands of languages in the world, but it is impossible for a person to learn them all so if people who speak different languages want to speak to each other, they need a language they both know. Here is where learning English becomes a "must", basically, because it has become the international language of education and business, not to mention science and technology. Read on to discover other reasons why learning English is so important in today's globalized world.

- For the millions of tourists or immigrants from non-English speaking countries who visit other countries every year, learning how to communicate in English is essential to move about: ask for help, have a conversation, lead an active social life enjoying activities typical of the community they are visiting.

- Being able to understand English gives you access to all kind of resources whatever your interests are, music, science, art, sports, business, etc. The primary language of the information age we live in is English: not only in the World Wide Web, in social media networks, in the most important websites, but also in software manuals and guides, and in entertainment devices.

- English is a vital part of success to enter a global workforce in the corporate world. If you know English your chances to get a better job locally or abroad are greater. Companies that have customers in different non-speaking countries rely on English as a means of communication so they need English speaking staff to increase their opportunities of getting better contracts or of getting the best partners anywhere in the world.

- English is the language of the most important universities in the world: it is regarded as the language of higher education, so if you want to study in one of those: Cambridge, Oxford, MIT, Harvard, etc. you will need to learn English to pass the English test that gives you access.

Effect / Problem

There are thousands of languages in the world, but it is impossible for a person to learn them all so if people who speak different languages want to speak to each other, they need a language they both know.

Cause

Learning English becomes a "must", basically, because it has become the international language of education and business, not to mention science and technology. Read on to discover other reasons why learning English is so important in today's globalized world.

Conclusion

Besides being useful, English can give you a lot of satisfaction: it will make you feel great when you realize you can progress, maybe slowly but steadily.
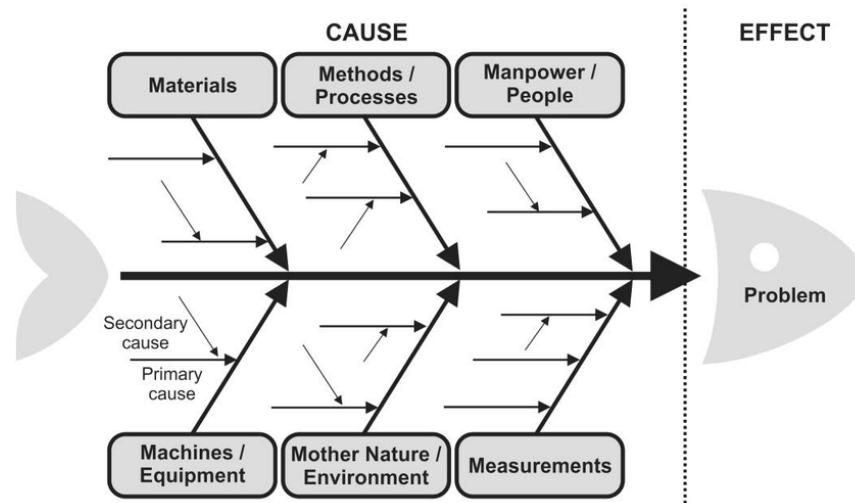
KEY ANSWER OF POST TEST

Rainbow

Rainbow is a natural phenomenon that is so impressive. This phenomenon often appears after rain. Rainbow is an arc spectrum which is so large and occurs because the drops are refracted by sunlight. When the sun is shining and the light passing through water droplets, then you will see a refraction that causes a wide variety of colors. Light is refracted like light passing through a glass prism. Other names of the rainbow is a rainbow which is a symptom of optical and meteorological phenomenon in which light with different colors refracted parallel to each other into water droplets. You can also see this phenomenon under the very high and heavy waterfall.

How does rainbow happen in detail? All the happenings begin when the sunlight passing through the raindrops. Then the light is deflected to the center of the droplet. The white light, now separated from each other into a spectrum of colors. The process does not stop there. The colors that have been separated, then separate again into the very small portions. There is more light separated from each other in the droplets. Then there are more curved and finally those color form a light curve called a rainbow. Can we make a rainbow? Of course. There are at least two ways that you can do to make a rainbow. First, you can use a spray containing water. We know that rainbows occur when sunlight passing through the raindrops. So, we make our own rain droplets from the water spray. In the morning or afternoon, spray water under the sun, then see the water droplets flying. Spray lots of water and you will see a small rainbow that you can touch easily. Second, use pieces of video discs then reflected to the light of the sun, and navigate to the wall or ceiling of your house. On the ceiling or the wall, you will see a colorful light that have the same color with the rainbow.

That's the definition of rainbow, how does it happen, and how we can make it true.

CAUSE · **EFFECT**

(Materials · Methods / Processes · Manpower / People · Machines / Equipment · Mother Nature / Environment · Measurements · Secondary cause · Primary cause · Problem)

Effect / Problem

This phenomenon often appears after rain. Rainbow is an arc spectrum which is so large and occurs because the drops are refracted by sunlight. When the sun is shining and the light passing through water droplets, then you will see a refraction that causes a wide variety of colors.

Cause

How does rainbow happen in detail? All the happenings begin when the sunlight passing through the raindrops. Then the light is deflected to the center of the droplet. The white light, now separated from each other into a spectrum of colors. The process does not stop there. The colors that have been separated, then separate again into the very small portions. There is more light separated from each other in the droplets. Then there are more curved and finally those color form a light curve called a rainbow.

Conclusion

That's the definition of rainbow, how does it happen, and how we can make it true.

LESSON PLAN I

(Experimental Group)

School	: Mas Al-Jamiyatul Alwasliyah Tembung
Subject	: English
Class / Semester	: X / 2
Text	: Analytical Exposition Text
Skill	: Writing
Time	: 1 x 45 Minutes
Meetings	: I

A. Core Competence

KI 1 : Living and practicing the teachings of his religion.

KI 2 : Living and practicing honest behavior, discipline, responsibility, caring (mutual cooperation, cooperation, tolerance, peace), courtesy, responsiveness and pro-active and showing attitude as part of the solution to various problems in interacting effectively with the social environment and nature and in placing themselves as a reflection of the nation in world association.

KI 3 : Understand, apply, analyze factual, conceptual, procedural knowledge based on their curiosity about science, technology, art, culture, and humanities with humanity, nationality, state and civilization insights related to the causes of phenomena and events, and apply procedural knowledge in a specific field of study according to their talents and interests to solve problems.

KI 4 : Processing, reasoning, and presenting in the concrete and abstract realms related to the development of what he learned in school independently, and being able to use methods according to scientific rules.

B. Basic Competence

KD 3.10 : Analyzing social functions, text structures, and linguistic elements from analytical exposition texts on topics that are

commonly discussed, in accordance with the context of their

use.

KD 4.14 : Captures the meaning in analytical exposition texts on topics that are commonly discussed.

C. Indicator

3.10.1 Identify simple present tense and conjunctions of analytical exposition text.

3.10.2 Describe simple present tense and conjunctions of analytical exposition text.

4.14.1 Arrange analytical exposition text.

D. Learning Objective

At the end of this subject, the students are expected to be able to write a text based on the grammatical features of analytical exposition text.

E. Learning Material

1. Analytical exposition text

- Definition : a text that elaborate the writer's idea about the phenomenon sorrounding.

- Social Function
  - To persuade the reader or listener that there is simething that,certainly, needs to get attention.
  - To analyze a topic and to persuade the reader that this opnion is correct and supported by arguments.

2. Generic Structure
   - Thesis   : Introduces the topic and shows speaker or writer's position, outlines of the arguments to br presented.
   - Arguments : it consists about point and elaboration point,states the main argument. Elaboration develops and supports each point of argument.
   - Conclusion : reiteration (restatement), restates speaker or writer's position.
3. Language Features
   - Focus on generic human and non-human participants.
   - Use mental processes. It is used to stat what the writer or speaker thinks or feels about something, for example: realize, feel, etc.
   - Need material processes. It used to state what happens, for example: has polluted, etc.
   - Use of simple present tense
   - Use of relationbal processes.
   - Use of internal conjuction to state argument.
   - Reasoning through casual conjuction or normalization.
4. Example of Analytical Exposition Text

Laptop as Students' Friend

Conventionally, students need book, pen, eraser, drawing book, ruler and such other stuff. Additionally, in this multimedia era, students need more to reach their progressive development. Students need mobile keyboards to record every presented subject easily. Of course it will need more cost but it will deserve for its function.

First, modern schools tend to apply fast transferring knowledge because the school needs to catch the target of curriculum. Every subject will tend to be given in demonstrative method. Consequently students need extra media cover the subject. Since there is a laptop on every student's desk, this method will help student to get better understanding.

Secondly, finding an appropriate laptop is not difficult as it was. Recently there is an online shop which provides comprehensive information. The best is that the shop has service of online shopping. The students just need to brows that online shop, decide which computer or laptop they need, and then complete the transaction. After that the laptop will be delivered to the students' houses. That is really easy and save time and money.

From all of that, having mobile computer is absolutely useful for students who want to catch the best result for their study.

F. Teaching Strategy

Discussion Method

G. Teaching and Learning Activities

Teacher's Activity	Students' Activity
Pre- teaching (10 Minutes)	
The teacher greets the students	Students give response to theteacher
The teacher intoduces and gives motivations related to the materials.	Students response.
While teaching (70 minutes)	
The teacher gives an example of analytical exposition text (Laptop as a students's friend) and explains to the students about social functions, generic structures, and grammatical features of analytical exposition text.	Students listen to the teacher
The teacher devides the students into some groups.	The Students sit in group.
The teacher asks them to make analytical exposition text based on the outline.	The students write an analytical exposition text.
The teacher ask them to share their writing to other groups.	The students present the analytical exposition in front of the class.

The teacher and the students discuss the final writing of analytical exposition text.	

Post- Teaching (10 Minutes)	
The teacher and the students conclude the lesson together	
Teacher give feedback and reinforcementto the students about analytical exposition text.	Students get feedback and reinforcement about Analytical exposition text from the teacher.
The teacher give motivation to the students who still get difficulties in writing analytical exposition text.	Students listen to the teacher.
Teacher tell the students to learn about analytical exposition text more at home.	Students response teacher.
Teacher closes the meeting by saying goodbye.	

H. Assessment

Categories	Score	Criteria
Content	30-27	Very good to excellent Knowleageable- suitantive- trough development of topic sentence - relevnt to the assigned topic.
	26-22	Average to good Some: knowledge of subjct − edaqete range, lmied development of topic sentence- mostly relevant the topict

	21-17	sentence but lack details. Fair to poor: Limited knowledge of subject, edequate range, title substance, inadequete development of topic.
	16-13	Very poor: Does not show knowledge of subject, non- substantive, not pertinet, or not enough to evaluate
Organizat ion	20-18	Excellent to very good Fluent expression, as de clearly stated/supported, orga succient, ell nized, logiical sequencing , cohesive.
	17-14	Good to average: Somewhat choppy, loosely organized but but main ideas stant out, limeted support, logical but incomplete sequencing.
	13-10	Fair to poor: Non-fluent, ideas confusedor disconnected, lack logical sequencing and development.
	9-7	very poor : Does not communicate, no organization, or not enough to evaluate.
Vocabula ry	20-18	Excellent to very good : Exact word, effective word/ idiom, choice, but meaning not obscured.
	17-14	Good to average : Adequete range, occasional errors of words, idiom form, choice, usage meaning confused,or obscured.
	13-10	Fair to poor: Limited range, frequent errors of word/ idiom form, choice, usage, meaning confused, or obscured.
	9-7	Very poor: Essencially translation,

			little
			knowledgeable of English vocabulary, idioms, word form or not enough to evaluate.
Language use/ Grammar	25-22		Excellent to very good.: Effective complex construction, few errors of agreement, tense, number, word order/ uction, articeles, pronouns and prepositions.

Medan,5 Juli 2019

Mengetahui,
Guru Pamong

Mahasiswa,

Marlina Rahmah S.Pd

Dwi Farroh Zuhainah
NIM. 34154163

LESSON PLAN II

(Experimental Group)

School : Mas Al-Jamiyatul Alwasliyah Tembung

Subject : English

Class / Semester : X / 2

Text : Analytical Exposition Text

Skill : Writing

Time : 1 x 45 Minutes

Meetings : II

I. Core Competence

KI 1 : Living and practicing the teachings of his religion.

KI 2 : Living and practicing honest behavior, discipline, responsibility, caring (mutual cooperation, cooperation, tolerance, peace), courtesy, responsiveness and pro-active and showing attitude as part of the solution to various problems in interacting effectively with the social environment and nature and in placing themselves as a reflection of the nation in world association.

KI 3 : Understand, apply, analyze factual, conceptual, procedural knowledge based on their curiosity about science, technology, art, culture, and humanities with humanity, nationality, state and civilization insights related to the causes of phenomena and events, and apply procedural knowledge in a specific field of study according to their talents and interests to solve problems.

KI 4 : Processing, reasoning, and presenting in the concrete and abstract realms related to the development of what he learned in school independently, and being able to use methods according to scientific rules.

J. Basic Competence

KD 3.10 : Analyzing social functions, text structures, and linguistic elements from analytical exposition texts on topics that are commonly discussed, in accordance with the context of their use.

KD 4.14 : Captures the meaning in analytical exposition texts on topics that are commonly discussed.

K. Indicator

3.10.1 Identify simple present tense and conjunctions of analytical exposition text.

3.10.2 Describe simple present tense and conjunctions of analytical exposition text.

4.14.1 Arrange analytical exposition text.

L. Learning Objective

At the end of this subject, the students are expected to be able to write a text based on the grammatical features of analytical exposition text.

M. Learning Material

5. Analytical exposition text
   - Definition : a text that elaborate the writer's idea about the phenomenon sorrounding.
   - Social Function
     - To persuade the reader or listener that there is simething that,certainly, needs to get attention.
     - To analyze a topic and to persuade the reader that this opnion is correct and supported by arguments.

6. Generic Structure

   - Thesis   : Introduces the topic and shows speaker or writer's position, outlines of the arguments to br presented.

   - Arguments : it consists about point and elaboration point,states the main argument. Elaboration develops and supports each point of argument.

   - Conclusion : reiteration (restatement), restates speaker or writer's position.

7. Language Features

   - Focus on generic human and non-human participants.

   - Use mental processes. It is used to stat what the writer or speaker thinks or feels about something, for example: realize, feel, etc.

   - Need material processes. It used to state what happens, for example: has polluted, etc.

   - Use of simple present tense

   - Use of relationbal processes.

   - Use of internal conjuction to state argument.

   - Reasoning through casual conjuction or normalization.

8. Example of Analytical Exposition Text

Cars should be banned in the city. As we all know, cars create pollution, and cause a lot of road deaths and other accidents.

Firstly, *cars*, as we all know, contribute to most of the pollution in the world.Carsemit a deadly gas that causes illnesses such as bronchitis, lung cancer, and 'triggers' off asthma. Some of these illnesses are so bad that people can die from them.Secondly, the city is very busy. Pedestrians wander everywhere and cars commonly hit pedestrians in the city, which causes them to die. Cars today are our roads biggest killers.

Thirdly, cars are very noisy. If you live in the city, you may find it hard to sleep at night, or concentrate on your homework, and especially talk to someone.

In conclusion, cars should be banned from the city for the reasons listed

N. Teaching Strategy

Discussion Method

O. Teaching and Learning Activities

Teacher's Activity	Students' Activity
Pre- teaching (10 Minutes)	
The teacher greets the students	Students give response to theteacher
The teacher intoduces and gives motivations related to the materials.	Students response.
While teaching (70 minutes)	
The teacher gives an example of analytical exposition text (Laptop as a students's friend) and explains to the students about social functions, generic structures, and grammatical features of analytical exposition text.	Students listen to the teacher
The teacher devides the students into some groups.	The Students sit in group.
The teacher asks them to make analytical exposition text based on the outline.	The students write an analytical exposition text.
The teacher ask them to share their writing to other groups.	The students present the analytical exposition in front of the class.
The teacher and the students discuss the final writing of	

analytical exposition text.	
Post- Teaching (10 Minutes)	
The teacher and the students conclude the lesson together	
Teacher give feedback and reinforcementto the students about analytical exposition text.	Students get feedback and reinforcement about Analytical exposition text from the teacher.
The teacher give motivation to the students who still get difficulties in writing analytical exposition text.	Students listen to the teacher.
Teacher tell the students to learn about analytical exposition text more at home.	Students response teacher.
Teacher closes the meeting by saying goodbye.	

P. Assessment

Categories	Score	Criteria
Content	30-27	Very good to excellent Knowleageable- suitantive- trough development of topic sentence - relevnt to the assigned topic.
	26-22	Average to good Some: knowledge of subjct – edaqete range, lmied development of topic sentence- mostly relevant the topict sentence
	21-17	but lack details.

	16-13	Fair to poor: Limited knowledge of subject, edequete range, title substance, inadequete development of topic. Very poor: Does not show knowledge of subject, non- substantive, not pertinet, or not enough to evaluate
Organizat ion	20-18	Excellent to very good
	17-14	Fluent expression, as de clearly stated/supported, succient, orga ell nized, logiical sequencing , cohesive. Good to average: Somewhat choppy, loosely organized but but main ideas stant out, limeted support, logical but incomplete sequencing.
	13-10	Fair to poor: Non-fluent, ideas confusedor disconnected, lack logical sequencing and development.
	9-7	very poor : Does not communicate, no organization, or not enough to evaluate.
Vocabula ry	20-18	Excellent to very good : Exact word, effective word/ idiom, choice, but meaning not obscur
	17-14	ed. Good to average : Adequete range, occasional errors of words, idiom form, choice, usage meaning confused,or obscured.
	13-10	Fair to poor: Limited range, frequent errors of word/ idiom form, choice, usage, meaning confused, or obscured.
	9-7	Very poor: Essencially translation, little knowledgeable of English vocabulary,

			idioms, word form or not enough to evaluate.
Language use/ Grammar	25-22		Excellent to very good.: Effective complex construction, few errors of agreement, tense, number, word order/ uction, articeles, pronouns and prepositions.

Medan, 12 April 2019

Mengetahui,
Guru Pamong

Mahasiswa,

Marlina Rahmah S.Pd

Dwi Farroh Zuhainah
NIM. 34154163

LESSON PLAN III

(Experimental Group)

School : Mas Al-Jamiyatul Alwasliyah Tembung

Subject : English

Class / Semester : X / 2

Text : Analytical Exposition Text

Skill : Writing

Time : 1 x 45 Minutes

Meetings : III

Q. Core Competence

KI 1 : Living and practicing the teachings of his religion.

KI 2 : Living and practicing honest behavior, discipline, responsibility, caring (mutual cooperation, cooperation, tolerance, peace), courtesy, responsiveness and pro-active and showing attitude as part of the solution to various problems in interacting effectively with the social environment and nature and in placing themselves as a reflection of the nation in world association.

KI 3 : Understand, apply, analyze factual, conceptual, procedural knowledge based on their curiosity about science, technology, art, culture, and humanities with humanity, nationality, state and civilization insights related to the causes of phenomena and events, and apply procedural knowledge in a specific field of study according to their talents and interests to solve problems.

KI 4 : Processing, reasoning, and presenting in the concrete and abstract realms related to the development of what he learned in school independently, and being able to use methods according to scientific rules.

R. Basic Competence

KD 3.10 : Analyzing social functions, text structures, and linguistic elements from analytical exposition texts on topics that are commonly discussed, in accordance with the context of their use.

KD 4.14 : Captures the meaning in analytical exposition texts on topics that are commonly discussed.

S. Indicator

3.10.1 Identify simple present tense and conjunctions of analytical exposition text.

3.10.2 Describe simple present tense and conjunctions of analytical exposition text.

4.14.1 Arrange analytical exposition text.

T. Learning Objective

At the end of this subject, the students are expected to be able to write a text based on the grammatical features of analytical exposition text.

U. Learning Material

9. Analytical exposition text
   - Definition : a text that elaborate the writer's idea about the phenomenon sorrounding.
   - Social Function
     - To persuade the reader or listener that there is simething that, certainly, needs to get attention.
     - To analyze a topic and to persuade the reader that this opnion is correct and supported by arguments.

10. Generic Structure

- Thesis   : Introduces the topic and shows speaker or writer's position, outlines of the arguments to br presented.

- Arguments : it consists about point and elaboration point,states the main argument. Elaboration develops and supports each point of argument.

- Conclusion : reiteration (restatement), restates speaker or writer's position.

11. Language Features

- Focus on generic human and non-human participants.

- Use mental processes. It is used to stat what the writer or speaker thinks or feels about something, for example: realize, feel, etc.

- Need material processes. It used to state what happens, for example: has polluted, etc.

- Use of simple present tense

- Use of relationbal processes.

- Use of internal conjuction to state argument.

- Reasoning through casual conjuction or normalization.

12. Example of Analytical Exposition Text

Being too fat is commonly known as overweight or obesity. It is simply defined as too much body fat inside. Overweight potentially leads high risk of health problem.

Being too fat is recognized as a major factor for heart disease. Due to the overweight, the heart will work harder. It can lead to the heart attack. Furthermore, obesity potentially rises blood cholesterol and blood pressure. In addition, being too fat can change the amount of sugar in the blood. This will cause diabetes and other serious disease.

Beside all of that, being too fat is often avoided by many young women. They said that becoming too fat will bother their physical beauty appearance.

More serious studies are necessary to see the effect of obesity. However it is clear enough that overweight is not good enough for healthy life.

V. Teaching Strategy

Discussion Method

W. Teaching and Learning Activities

Teacher's Activity	Students' Activity
Pre- teaching (10 Minutes)	
The teacher greets the students	Students give response to theteacher
The teacher intoduces and gives motivations related to the materials.	Students response.
While teaching (70 minutes)	
The teacher gives an example of analytical exposition text (Laptop as a students's friend) and explains to the students about social functions, generic structures, and grammatical features of analytical exposition text.	Students listen to the teacher
The teacher devides the students into some groups.	The Students sit in group.
The teacher asks them to make analytical exposition text based on the outline.	The students write an analytical exposition text.
The teacher ask them to share their writing to other groups.	The students present the analytical exposition in front of the class.
The teacher and the students discuss the final writing of	

analytical exposition text.	
Post- Teaching (10 Minutes)	
The teacher and the students conclude the lesson together	
Teacher give feedback and reinforcement the students about analytical exposition text.	Students get feedback and reinforcement about Analytical exposition text from the teacher.
The teacher give motivation to the students who still get difficulties in writing analytical exposition text.	Students listen to the teacher.
Teacher tell the students to learn about analytical exposition text more at home.	Students response teacher.
Teacher closes the meeting by saying goodbye.	

X. Assessment

Categories	Score	Criteria
Content	30-27	Very good to excellent Knowleageable- suitantive- trough development of topic sentence - relevnt to the assigned topic.
	26-22	Average to good Some: knowledge of subjct – edaqete range, lmied development of topic sentence- mostly relevant the topict sentence
	21-17	but lack details. Fair to poor: Limited knowledge of subject, edequete range, title substance, inadequete development of topic.

	16-13	Very poor: Does not show knowledge of
		subject, non- substantive, not pertinet, or not
		enough to evaluate
Organizat ion	20-18	Excellent to very good
		Fluent expression, as de clear ly stated/supported, orga succient, ell nized, logiical sequencing , cohesive.
	17-14	Good to average: Somewhat choppy, loosely
		organized but but main ideas stant out, limeted
		support, logical but incomplete sequencing.
	13-10	Fair to poor: Non-fluent, ideas confusedor
		disconnected, lack logical sequencing and
		development.
	9-7	very poor : Does not communicate, no
		organization, or not enough to evaluate.
Vocabula ry	20-18	Excellent to very good : Exact word, effective
		word/ idiom, choice, but meaning not obscur
	17-14	ed.
		Good to average : Adequete range, occasional
		errors of words, idiom form, choice, usage
		meaning confused,or obscured.
	13-10	Fair to poor: Limited range, frequent errors of
		word/ idiom form, choice, usage, meaning
		confused, or obscured.
	9-7	Very poor: Essencially translation, little
		knowledgeable of English vocabulary, idioms,
		word form or not enough to evaluate.
Language	25-22	Excellent to very good.: Effective complex

use/ Grammar		construction, few errors of agreement, tense, number, word order/ uction, articeles, pronouns and prepositions.

Medan, 05 Juni 2019

Mengetahui,
Guru Pamong

Mahasiswa,

Marlina Rahmah S.Pd

Dwi Farroh Zuhainah
NIM. 34154163

APPENDIX D

OBSERVATION SHEET CYCLE

Note: give (√) in each column, where 4 (Very good), 3 (Good), 2 (Enough), and 1 (Bad).

No	Points will be observed	Treatment I			
		1			
1	The teacher comes on time				
2	The teacher greets the students				
3	Teacher's ability in opening class				
4	Teacher's motivation in teaching learning Process				
5	Teacher's mastering the material				
6	Teacher provides the material clearly				
7	Teacher provides the material systematically				
8	The teacher be serious in learning process				
9	Teacher's ability in organizing the class				
10	The teacher give task to the Students				
11	The teacher conclude the material				
12	The students are active in joining the learning process				

3	Students' respon to the explanation of teacher				
4	The students ask question to the teacher if there is something unclear				
5	Students enthusiast of in teaching process				
6	Students' bravery in giving their opinion				
7	Students interaction in the class				
8	Students' activities in group				
9	The students can follow the rule of gallery walk				
20	Teacher's ability in closing the				

THE STUDENTS' INITIAL AND REAL NAME
OF EXPERIMENTAL GROUP (X-1)

o	Initial Name	Real Name
	AMP	Abdi Mahabbah P
	AD	Afuza Dalila
	ADH	Ahmad Dhani Harahap
	AS	Arbima Suhari
	BS	Bayu Syahputra
	DPA	Delvi Putri Agustin
	DPS	Dian Permata Sari
	ES	Elsa Savitri
	FR	Fahrul Rozi
0	IAA	Iga Aulia Afrillani
1	K	Khairunnisa'
2	LS	Laily Shofa
3	LS	Legianto Siregar
4	M	Mayadhita
5	MH	Miftahul Husni
6	M	Muchlisin
7	MARH	Muhammad Adjie Rizky Hsb
8	MIS	Muhammad Iwan Syahputra
9	NAMS	Nur Arsih Melinda
	N	Nurhaniyah

0		
1	NIB	Nurul Ilmi Bukit
2	PESN	Putri Elvita Sari Nst
3	RA	Rafida Adilla
4	RNF	Risa Nur Fadillah
5	RA	Rofi Amirza
6	SS	Safrida Sari
7	SR	Septian Syahrozy
8	SM	Siti Marhamah
9	SN	Siti Nurhalizah
0	SR	Suci Ramadhani

THE STUDENTS' INITIAL AND REAL NAME

OF CONTROL GROUP (X-2)

o	Initial Name	Real Name
	AIN	Ahmad Irfan Nst
	AAY	Aji Akbar Yustito
	AAL	Amanda Agustina Lbs
	BDP	Bagus Dwi Putra
	CSH	Chandra Sentosa Hrp
	DP	Diah Pramesti
	DF	Dian Fahmi
	DHL	Duriatun Habib Lutvia
	EWN	Eka Widya Ningsih
0	EF	Era Fazirah
1	FA	Fiqri Alviansyah
2	IFIS	Ihza Fachrul Imam S
3	KAL	Kiki Ardiansyah Lbs
4	LAN	Latifah Aini Nst
5	M	Melysa
6	MA	Muhammad Aditya
7	MIN	Muhammad Ilham Nst
8	MRR	Muhammad Rizky Ramadhan
9	MSR	Muhammad Sahrul R
0	NA	Najimi Arisyi
	NF	Nur Fadila

1		
2	NJP	Nur Janna Pane
3	NAN	Nurwinda Aulia Nst
4	PAKS	Putri Ayu Kurnia Sari
5	QA	Qurratul A'yun
6	RP	Rahmatsyah Putra
7	RL	Rudi Luqman
8	SS	Safira Sultanah
9	SRAL	Siti Rahmah Afroh Lbs
0	S	Susanti

APPENDIX F

Table I
The List of Pre-Test and Post-Test Scores of Experiment Class

NO	The Initial of Students	Pre Test	Post Test
1	AMP	66	80
2	AD	44	80
3	ADH	40	80
4	AS	50	88
5	BS	40	76
6	DPA	46	78
7	DPS	50	66
8	ES	66	78
9	FR	44	66
10	IAA	66	80
11	K	50	80
12	LS	40	66
13	LS	50	78
14	M	66	88
15	MH	50	80
16	M	44	80
17	MARH	50	88
18	MIS	40	78
19	NAMS	44	66
20	N	66	78
21	NIB	40	66
22	PESN	50	66
23	RA	50	78
24	RNF	50	80
25	RA	66	78
26	SS	40	66
27	SR	50	88
28	SM	66	80

29	SN	50	78
30	SR	66	88
Mean			

Based on the data above, the result of total of decrease in Pre-test is 1604 and the mean is 53.46. Meanwhile the total of decreas of post-test is 2318, and the mean is 77.26.

Table II
The List of Post-Test and Post-Test Scores of Control Class

NO	The Initial of Students	Pre Test	Post Test
1	AIN	50	68
2	AAY	50	66
3	AAL	48	60
4	BDP	44	66
5	CSH	56	60
6	DP	56	68
7	DF	60	76
8	DHL	48	66
9	EWN	48	56
10	EF	44	60
11	FA	50	56
12	IFIS	50	56
13	KAL	56	66
14	LAN	50	76
15	M	50	76
16	MA	50	66
17	MIN	44	56
18	MRR	44	66
19	MSR	44	56
20	NA	50	60
21	NF	50	66
22	NJP	60	76
23	NAN	60	66
24	PAKS	50	66
25	QA	66	76
26	RP	66	76
27	RL	56	66
28	SS	44	66

29	SRAL	66	76
30	S	66	76
Mean			

Based on the data above, the result of total of decrease in Pre-test is 1604 and the mean is 53.46. Meanwhile the total of decreas of post-test is 2318, and the mean is 77.26.

Normality Testing of Experimental Group

Table III
Pre Test of the Experiment Class

NO	Score (x_i)	f_i	$f_i x_i$	x_i^2	$f_i x_i^2$
1.	40	6	240	1600	9600
2.	44	4	176	1936	7744
	46	1	46	2116	2116
3.	50	11	550	2500	27500
4.	66	8	528	4356	34848
5.					
	Total	30	1540	12508	81808

Based on the data above, the result of $FiXi^2$ is 81808 and FiXi is 1540.

Then the following is the calculation of mean, variant and standart deviation.

a. **Mean ($\bar{x}$)**

$$(\bar{x}) = \frac{\sum fixi}{\sum fi}$$
$$= \frac{1540}{30}$$
$$= 51.33$$

b. **Variant (S^2)**

$$S^2 = \frac{n \sum fixi^2 - (\sum fixi)^2}{n(n-1)}$$
$$= \frac{30 x 81808 - (1540)^2}{30(30-1)}$$
$$= \frac{2454240 - 2371600}{870}$$
$$= \frac{82640}{870}$$
$$= 94,988$$

c. **Deviation Standard**

Deviation standard was found by drawing root of variants that was
$$\sqrt{94.988} = 9,746$$

Table IV
Normality Testing of Pre Test in Experimental Group

No	Score	A 2B1^2		Zi	Fzi	Szi	Fzi-Szi
1	40	1600		-1,163	0,122	0,200	0,078
2	40	1600		-1,163	0,122	0,200	0,078
3	40	1600		-1,163	0,122	0,200	0,078
4	40	1600		-1,163	0,122	0,200	0,078
5	40	1600		-1,163	0,122	0,200	0,078
6	40	1600		-1,163	0,122	0,200	0,078
7	44	1936		-0,752	0,226	0,333	0,107
8	44	1936		-0,752	0,226	0,333	0,107
9	44	1936		-0,752	0,226	0,333	0,107
10	44	1936		-0,752	0,226	0,333	0,107
11	46	2116		-0,547	0,292	0,367	0,075

1 2	5 0	2 500	1	- 0,13 7	0 ,446	0 ,733	0,2 88
1 3	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
1 4	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
1 5	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
1 6	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
1 7	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
1 8	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
1 9	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
2 0	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
2 1	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
2 2	5 0	2 500		- 0,13 7	0 ,446	0 ,733	0,2 88
2 3	6 6	4 356		1 ,505	0 ,934	1 ,000	0,0 66
2 4	6 6	4 356		1 ,505	0 ,934	1 ,000	0,0 66
2	6	4		1	0	1	0,0

5	6	356		,505	,934	,000	66
26	66	4356		1,505	0,934	1,000	0,066
27	66	4356		1,505	0,934	1,000	0,066
28	66	4356		1,505	0,934	1,000	0,066
29	66	4356		1,505	0,934	1,000	0,066
30	66	4356		1,505	0,934	1,000	0,066
Jumlah	1540	1808	0	L-Hitung			0,288
Mean	51,333			L-Tabel			0,1618
SD	9,746						

There are some steps that must be done for calculating the normality test.

1. Finding Z score

    To find Z score the writer used Liliefors formula : $Z_i = \frac{x_i - \bar{x}}{s}$

    $Z_i 1 = \frac{40 - 51.33}{9.746} = -1.163$

    $Z_i 2 = \frac{44 - 51.33}{9.746} = -0.752$

    $Z_i 3 = \frac{46 - 51.33}{9.746} = -0.547$

    $Z_i 4 = \frac{50 - 51.33}{9.746} = -0.137$

    $Z_i 5 = \frac{66 - 51.33}{9.746} = 1.505$

2. Finding S (Zi)

    1. $\frac{6}{30} = 0.200$

    2. $\frac{10}{30} = 0.333$

    3. $\frac{11}{30} = 0.367$

    4. $\frac{22}{30} = 0.733$

5. $\frac{30}{30} = 1$

Table V
Normality Data of Pre Test of Experiment Class

NO	x_i	f_i	f_{cum}	Z_i	$F(Z_i)$	$S(Z_i)$	$FZ_i - SZ_i$
1	40	6	6	−1.163	0.122	0.200	0.078
2	44	4	10	−0.752	0.226	0.333	0.107
3	46	1	11	−0.5 47	0.292	0.367	0.075
4	50	11	22	−0.137	0.446	0.733	0.288
5	56	8	30	1505	0.934	1.00	0.066

The result :

From the above table it was found that Lo = 0.288 Based on the list critics value of Liliefors table with n = 30 and at real level α 0.05 = 1.697 from the list critical value of Liliefors table Lt = 0.1618 Therefore, it was known that the coefficient of 0.288 < Lt 0.1618. So it can be concluded that the data distribution of Pre Test of experiment class was **normal**.

Table VI

NO	Score (x_i)	f_i	$f_i x_i$	x_i^2	$f_i x_i^2$
1.	66	7	462	4356	30492
2.	76	1	76	5776	5776
	78	8	624	6084	48672
3.	80	9	720	6400	57600
4.	88	5	440	7744	38720
5.					
	Total	**30**	**2322**	**30360**	**181260**

Post Test of the Experiment Class

Based on the data above, the result of FiXi^2 is 181260 and FiXi is 2322.

Then the following is the calculation of mean, variant and standart deviation.

a. **Mean ($\bar{x}$)**

$$(\bar{x}) = \frac{\sum fixi}{\sum fi}$$

$$= \frac{2322}{30}$$
$$= 77,400$$

b. **Variant (S^2)**

$$S^2 = \frac{n \sum fixi^2 - (\sum fixi)^2}{n(n-1)}$$
$$= \frac{30 x 181260 - (2322)^2}{30(30-1)}$$
$$= \frac{5437800 - 5391684}{870}$$
$$= \frac{46116}{870}$$
$$= 53.007$$

c. **Deviation Standard**

Deviation standard was found by drawing root of variants that was
$$\sqrt{53.007} = 7.281$$

Table VII

The Normality of Post Test of the Experiment Class

No	Score	A1 B2^2	F	Zi	F zi	S zi	| Fzi-Szi |
1	6 6	435 6	7	- 1,566	0 ,059	0 ,233	0,175
2	6 6	435 6		- 1,566	0 ,059	0 ,233	0,175
3	6 6	435 6		- 1,566	0 ,059	0 ,233	0,175
4	6 6	435 6		- 1,566	0 ,059	0 ,233	0,175
5	6 6	435 6		- 1,566	0 ,059	0 ,233	0,175
6	6 6	435 6		- 1,566	0 ,059	0 ,233	0,175
7	6 6	435 6		- 1,566	0 ,059	0 ,233	0,175
8	7 6	577 6	1	- 0,192	0 ,424	0 ,267	0,157
9	7 8	608 4	8	0 ,082	0 ,533	0 ,533	0,000
1	7	608		0	0	0	0,000

0	8	4		,082	,533	,533	
1 1	7 8	608 4		0 ,082	0 ,533	0 ,533	0,000
1 2	7 8	608 4		0 ,082	0 ,533	0 ,533	0,000
1 3	7 8	608 4		0 ,082	0 ,533	0 ,533	0,000
1 4	7 8	608 4		0 ,082	0 ,533	0 ,533	0,000
1 5	7 8	608 4		0 ,082	0 ,533	0 ,533	0,000
1 6	7 8	608 4		0 ,082	0 ,533	0 ,533	0,000
1 7	8 0	640 0	9	0 ,357	0 ,639	0 ,833	0,194
1 8	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
1 9	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
2 0	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
2 1	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
2 2	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
2 3	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
2 4	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
2 5	8 0	640 0		0 ,357	0 ,639	0 ,833	0,194
2 6	8 8	774 4	5	1 ,456	0 ,927	1 ,000	0,073
2 7	8 8	774 4		1 ,456	0 ,927	1 ,000	0,073
2 8	8 8	774 4		1 ,456	0 ,927	1 ,000	0,073
2	8	774		1	0	1	0,073

9	8	4		,456	,927	,000	
3 0	8 8	774 4		1 ,456	0 ,927	1 ,000	0,073
M ean	7 7,400	181 260	3 0			T - hitung	0,194
S D	7, 281					T -tabel	0,1618

There are some steps that must be done for calculating the normality test.

1. Finding Z score

To find Z score the writer used Liliefors formula : $Z_i = \frac{x_i - \bar{x}}{s}$

$Z_i 1 = \frac{66 - 77.400}{7.281} = -1.566$

$Z_i 2 = \frac{76 - 77.400}{7.281} = -1.192$

$Z_i 3 = \frac{78 - 77.400}{7.281} = 0.357$

$Z_i 4 = \frac{80 - 77.400}{7.281} = 0.948$

$Z_i 5 = \frac{88 - 77.400}{7.281} = 1.456$

2. Finding S (Zi)

a. $\frac{7}{30} = 0.233$

b. $\frac{8}{30} = 0.267$

c. $\frac{16}{30} = 0.533$

d. $\frac{25}{30} = 0.833$

e. $\frac{30}{30} = 1$

The Normality data Post Test of the Experiment Class

Table VIII
Normality Data of Post Test of Experiment Class

NO	x_i	f_i	f_{cum}	Z_i	$F(Z_i)$	$S(Z_i)$	$FZ_i - SZ_i$
1	66	7	7	-1.566	0.059	0.237	0.175
2	76	1	8	-0.192	0.424	0.267	0.157
3	78	8	16	0.082	0.533	0.533	0.000
4	80	9	25	0.357	0.639	0.833	0.194
5.	88	5	30	1.456	0.927	1.00	0.073

The Result :

From the above table it was found that Lo = 0.194 Based on the list critics value of Liliefors table with n = 30 and real level α 0.05 = 1.697 From the list critical value of Liliefors table Lt 0.1618. Therefore, it was known that the coefficient of Lo (0.194) < Lt (0.1618) so it can be conclude that the data distribution of Post test of experiment class was **normal**.

Table IX

NO	Score (x_i)	f_i	$f_i x_i$	x_i^2	$f_i x_i^2$
1.	44	6	264	1936	11616
2.	48	3	144	2304	6912
	50	10	500	2500	25000
3.	56	4	224	3136	12544
4.	60	3	180	3600	10800
	66	4	264	4356	17424
5.					
6.					
	Total	**30**	**1576**	**17832**	**84296**

Pre Test of the Control Class

Based on the data above, the result of FiXi^2 is 84296 and FiXi is 1576

Then the following is the calculation of mean, variant and standart deviation.

a. **Mean ($\bar{x}$)**

$$(\bar{x}) = \frac{\sum fixi}{\sum fi}$$
$$= \frac{1576}{30}$$
$$= 52.533$$

b. Variant (S^2)

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

$$= \frac{30x84296 - (1576)^2}{30(30-1)}$$

$$= \frac{2528880 - 2483776}{870}$$

$$= \frac{45.104}{870}$$

$$= 51.843$$

c. Deviation Standard

Deviation standard was found by drawing root of variants that was
$\sqrt{51.843} = 7.200$

Table X

The Normality of Pre Test of the Control Class

No	Score	A1 B2^2	F	Zi	Fzi	Szi	|Fzi-Szi|
1	44	1936	6	-1,185	0,118	0,200	0,082
2	44	1936		-1,185	0,118	0,200	0,082
3	44	1936		-1,185	0,118	0,200	0,082
4	44	1936		-1,185	0,118	0,200	0,082
5	44	1936		-1,185	0,118	0,200	0,082
6	44	1936		-1,185	0,118	0,200	0,082
7	48	2304	3	-0,630	0,264	0,300	0,036
8	48	2304		-0,630	0,264	0,300	0,036
9	48	2304		-0,630	0,264	0,300	0,036
10	50	2500	10	-0,352	0,362	0,633	0,271
11	50	2500		-0,352	0,362	0,633	0,271
12	50	2500		-0,352	0,362	0,633	0,271
13	50	2500		-0,352	0,362	0,633	0,271
14	50	2500		-0,352	0,362	0,633	0,271
15	50	2500		-0,352	0,362	0,633	0,271
16	50	2500		-0,352	0,362	0,633	0,271

17	50	2500		-0,352	0,362	0,633	0,271
18	50	2500		-0,352	0,362	0,633	0,271
19	50	2500		-0,352	0,362	0,633	0,271
20	56	3136	4	0,481	0,685	0,767	0,082
21	56	3136		0,481	0,685	0,767	0,082
22	56	3136		0,481	0,685	0,767	0,082
23	56	3136		0,481	0,685	0,767	0,082
24	60	3600	3	1,037	0,850	0,867	0,017
25	60	3600		1,037	0,850	0,867	0,017
26	60	3600		1,037	0,850	0,867	0,017
27	66	4356	4	1,870	0,969	1,000	0,031
28	66	4356		1,870	0,969	1,000	0,031
29	66	4356		1,870	0,969	1,000	0,031
30	66	4356		1,870	0,969	1,000	0,031
Jumlah	1576	84296	30	L-Hitung			0,271
Mean	52,533			L-Tabel			0,1618
SD	7,200						

There are some steps that must be done for calculating the normality test.

1. Finding Z score

   To find Z score the writer used Liliefors formula : $Z_i = \frac{x_i - \bar{x}}{s}$

   $Z_i 1 = \frac{44 - 52.533}{7.200} = -1.185$

   $Z_i 2 = \frac{48 - 52.533}{7.200} = -0.630$

   $Z_i 3 = \frac{50 - 52.533}{7.200} = -0.352$

   $Z_i 4 = \frac{56 - 52.533}{7.200} = 0.481$

   $Z_i 5 = \frac{60 - 52.533}{7.272} = 1.037$

   $Z_i 6 = \frac{66 - 52.533}{7.200} = 1.870$

2. Finding S (Zi)

   a. $\frac{6}{30} = 0.200$

   b. $\frac{9}{30} = 0.300$

   c. $\frac{19}{30} = 0.633$

   d. $\frac{23}{30} = 0.767$

   e. $\frac{26}{30} = 0.867$

   f. $\frac{30}{30} = 1$

3. The Normality data Pre Test of the Control Class

Table XI
Normality Data of Pre Test of Control Class

NO	x_i	f_i	f_{cum}	Z_i	$F(Z_i)$	$S(Z_i)$	$FZ_i - SZ_i$
1	44	6	6	−1.185	0.118	0.200	0.082
2	48	3	9	−0.630	0.264	0.300	0.036
3	50	10	19	−0.352	0.362	0.633	0.271
4	56	4	23	0.481	0.685	0.767	0.082
5	60	3	26	1,037	0.850	0.867	0.017
6	66	4	30	1,870	0.969	1.000	0.031

The Result:

From the above table it was found that Lo = 0.271. Based on the list critics value of Lilifors table with n = 30 and at real level α 0.05 = 1.697 from the list critical value of Liliefors table Lt = 0.1618 Therefore, it was known that the coefficient of Lo (0.271) < Lt (0.1618) so it can be concluded that the data distribution of pre test of the control class was **normal.**

Table XII

NO	Score (x_i)	f_i	$f_i x_i$	x_i^2	$f_i x_i^2$
1.	56	5	280	3136	15680
2.	60	4	240	3600	14400
3.	66	11	726	4356	47916
4.	68	2	136	4624	9248
5.	76	8	608	5776	46208
	Total	**30**	**1990**	**21492**	**133452**

Post Test of the Control Class

Based on the data above, the result of FiXi^2 is 133452 and FiXi is 1990.

Then the following is the calculation of mean, variant and standart deviation.

a. **Mean ($\bar{x}$)**

$$(\bar{x}) = \frac{\sum fixi}{\sum fi}$$
$$= \frac{1990}{30}$$
$$= 66.33$$

b. **Variant (S^2)**

$$S^2 = \frac{n \sum fixi^2 - (\sum fixi)^2}{n(n-1)}$$
$$= \frac{30 x 133452 - (1990)^2}{30(30-1)}$$
$$= \frac{4003560 - 3960100}{870}$$
$$= \frac{43460}{870}$$
$$= 49.954$$

c. **Deviation Standard**

Deviation standard was found by drawing root of variants that was
$\sqrt{49.954} = 7.06$

Table XIII

The Normality of Post Test of the Control Class

No	A1B1	A1B1^2		Zi	Fzi	Szi	|Fzi-Szi|
1	56	3136		-1,462	0,072	0,167	0,095
2	56	3136		-1,462	0,072	0,167	0,095
3	56	3136		-1,462	0,072	0,167	0,095
4	56	3136		-1,462	0,072	0,167	0,095
5	56	3136		-1,462	0,072	0,167	0,095
6	60	3600		-0,89	0,185	0,300	0,115

				6			
7	60	3600		-0,896	0,185	0,300	0,115
8	60	3600		-0,896	0,185	0,300	0,115
9	60	3600		-0,896	0,185	0,300	0,115
10	66	4356	1	-0,047	0,481	0,667	0,185
11	66	4356		-0,047	0,481	0,667	0,185
12	66	4356		-0,047	0,481	0,667	0,185
13	66	4356		-0,047	0,481	0,667	0,185
14	66	4356		-0,047	0,481	0,667	0,185
15	66	4356		-0,047	0,481	0,667	0,185
16	66	4356		-0,047	0,481	0,667	0,185
17	66	4356		-0,047	0,481	0,667	0,185
18	66	4356		-0,047	0,481	0,667	0,185
1	6	43		-	0	0	0,

9	6	56		0,04 7	,481	,667	185
2 0	6 6	43 56		- 0,04 7	0 ,481	0 ,667	0, 185
2 1	6 8	46 24		0 ,236	0 ,593	0 ,733	0, 140
2 2	6 8	46 24		0 ,236	0 ,593	0 ,733	0, 140
2 3	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
2 4	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
2 5	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
2 6	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
2 7	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
2 8	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
2 9	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
3 0	7 6	57 76		1 ,368	0 ,914	1 ,000	0, 086
M ean	6 6,333	13 3452	0			T - hitun g	0, 185
S D	7 ,068					T -tabel	0, 1618

There are some steps that must be done for calculating the normality test.

1. Finding Z score

To find Z score the writer used Liliefors formula : $Z_i = \frac{x_i - \bar{x}}{s}$

$$Z_i\,1 = \frac{56 - 66.33}{7.067} = -1.462$$

$$Z_i\,2 = \frac{60 - 66.33}{7.067} = -0.896$$

$$Z_i\,3 = \frac{66 - 66.33}{7.067} = -0.047$$

$$Z_i\,4 = \frac{68 - 66.33}{7.067} = 0.236$$

$$Z_i\,5 = \frac{76 - 66.33}{7.067} = 1.368$$

2. Finding S (Zi)

a. $\dfrac{5}{30} = 0.167$

b. $\dfrac{9}{30} = 0.300$

c. $\dfrac{20}{30} = 0.667$

d. $\dfrac{22}{30} = 0.733$

e. $\dfrac{30}{30} = 1.000$

3. The Normality data Post Test of the Control Class

Table VIX
Normality Data of Post Test of Control Class

NO	x_i	f_i	f_{cum}	Z_i	$F(Z_i)$	$S(Z_i)$	$FZ_i - SZ_i$
1	56	5	5	-1.462	0.072	0.167	0.095
2	60	4	9	-0.896	0.185	0.300	0.115
3	66	11	20	-0.0 47	0.481	0.667	0.185
4	68	2	22	0.236	0.593	0.700	0.140
5	76	8	30	1.368	0.914	1.000	0.086

The Result:

From the above table it was found that Lo = 0.185. Based on the list critics value of Lilifors table with n = 30 and at real level α 0.05 = 1.697 from the list critical value of Liliefors table Lt = 0.1618 Therefore, it was known that the coefficient of Lo (0.185) < Lt (0.1618) so it can be concluded that the data distribution of post test of the control class was **normal.**

APPENDIX I

Homogenity Test

   1. **Homogenity Testing of Pre test**

$$F_{obs} = \frac{S1^2}{S2^2}$$

Where: $S1^2$ = the biggest variant

     $S2^2$ = the smallest variant

Based on the variants of both samplest of pre test found that:

S^2_{ex} = 94,989   N=30

S^2_{co} = 51.844   N=30

So:

$$F_{obs} = \frac{94.989}{51.844} = 1.532$$

       Then the coefficient of F_{obs} 1. = 1.532 is compared with Ftable, where Ftable is determined at real α = 0,05 and the same numerator dk = N-1 = 30-1 that was exist dk numerator 29, the denominator dk = n-1 (30-1= 29). Then Ftable can be calculated F(0.05=1.679). So Fobs < Ftable or (1.532 <1.679) so it can be concluded that the variant is **homogenous.**

     2. **Homogenity Testing of Post test**

$$F_{obs} = \frac{S1^2}{S2^2}$$

Where: $S1^2$ = the biggest variant

     $S2^2$ = the smallest variant

Based on the variants of both samplest of pre test found that:

S^2_{ex} = 53.007   N=30

S^2_{co} = 49.954   N=30

So:

$$F_{obs} = \frac{53.007}{49.954} = 1.061$$

       Then the coefficient of F_{obs} = is compared with Ftable, where Ftable is determined at real α = 0,05 and the same numerator dk = N-1 = 30-1 that was exist dk numerator 29, the denominator dk = n-1 (30-1= 29). Then Ftable can be calculated F(0.05=1.679). So Fobs < Ftable or (1.061 < 1.679) so it can be concluded that the variant is **homogenous**.

Pict 1. The researcher is giving explanation about exposition text to the students of experimental group

Pict 2. The students of experimental group are doing pre test

Pict 3. The researcher is giving explanation about exposition text to the students of control group

APPENDIX K

TABLE OF F DISTRIBUTION

Menyatakan:

(Bilangan Dalam Badan Daftar Menyatakaan: Fp : Baris Atas untuk p = 0,05 dan Baris Bawah untuk p = 0,01)

V_2 = dk penyebut	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
1	161	200	216	225	230	234	237	239	241	242	243	244	245	246	248	249	250	251	252	253	253	254	254	254
	4062	4999	5403	5625	5764	5859	5928	5981	6022	6056	6082	6106	6142	6169	6208	6234	6258	6286	6302	6323	6334	6352	6361	6366
2	18,51	19,00	19,16	19,25	19,30	19,33	19,36	19,37	19,38	19,39	19,40	19,41	19,42	19,43	19,44	19,45	19,46	19,47	19,47	19,48	19,49	19,49	19,50	19,50
	98,49	99,01	99,17	99,25	99,30	99,33	99,34	99,36	99,38	99,40	99,41	99,42	99,43	99,44	99,45	99,46	99,47	99,48	99,48	99,49	99,49	99,49	99,50	99,50
3	10,13	9,55	9,28	9,12	9,01	8,94	8,88	8,84	8,81	8,78	8,76	8,74	8,71	8,69	8,66	8,64	8,62	8,60	8,58	8,57	8,56	8,54	8,54	8,52
	34,12	30,81	29,46	28,71	28,24	27,91	27,67	27,49	27,34	27,23	27,13	27,05	26,92	26,83	26,69	26,60	26,50	26,41	26,30	26,27	26,23	26,18	26,14	26,12
4	7,17	6,94	6,59	6,39	6,26	6,16	6,09	6,04	6,00	5,96	5,93	5,91	5,87	5,84	5,80	5,77	5,74	5,71	5,70	5,68	5,66	5,65	5,64	5,63
	21,20	18,00	16,69	15,98	15,52	15,21	14,98	14,80	14,66	14,54	14,45	14,37	14,24	14,15	14,02	13,93	13,83	13,74	13,69	13,61	13,57	13,52	13,48	13,46
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,78	4,74	4,70	4,68	4,64	4,60	4,56	4,53	4,50	4,46	4,44	4,42	4,40	4,38	4,37	4,36
	16,26	13,27	12,06	11,39	10,97	10,67	10,45	10,27	10,15	10,05	9,96	9,89	9,77	9,68	9,55	9,47	9,38	9,29	9,24	9,17	9,13	9,07	9,04	9,02
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,10	4,06	4,03	4,00	3,96	3,92	3,87	3,84	3,81	3,77	3,75	3,72	3,71	3,69	3,68	3,67
	13,74	10,92	9,78	9,15	8,75	8,47	8,26	8,10	7,98	7,87	7,79	7,72	7,60	7,52	7,39	7,31	7,23	7,14	7,09	7,02	6,99	6,94	6,90	6,88
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,68	3,63	3,60	3,57	3,52	3,49	3,44	3,41	3,38	3,34	3,32	3,29	3,28	3,25	3,24	3,23
	12,25	9,55	8,45	7,86	7,46	7,19	7,00	6,84	6,71	6,62	6,54	6,47	6,35	6,27	6,15	6,07	5,98	5,90	5,85	5,78	5,75	5,70	5,67	5,65
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,39	3,34	3,31	3,28	3,23	3,20	3,15	3,12	3,08	3,05	3,03	3,00	2,98	2,96	2,94	2,93
	11,26	8,65	7,59	7,01	6,63	6,37	6,19	6,03	5,91	5,82	5,74	5,67	5,56	5,48	5,36	5,28	5,20	5,11	5,06	5,00	4,96	4,91	4,88	4,86
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,18	3,13	3,10	3,07	3,02	2,98	2,93	2,90	2,86	2,82	2,80	2,77	2,76	2,73	2,72	2,71
	10,56	8,02	6,99	6,42	6,06	5,80	5,62	5,47	5,35	5,26	5,18	5,11	5,00	4,92	4,80	4,73	4,64	4,56	4,51	4,45	4,41	4,36	4,33	4,31
10	4,96	4,80	3,71	3,48	3,33	3,22	3,14	3,07	3,02	2,97	2,94	2,91	2,86	2,82	2,77	2,74	2,70	2,67	2,64	2,61	2,59	2,56	2,55	2,54
	10,04	7,56	6,55	5,99	5,64	5,39	5,21	5,06	4,95	4,85	4,78	4,71	4,60	4,52	4,41	4,33	4,25	4,17	4,12	4,05	4,01	3,96	3,93	3,91
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,90	2,86	2,82	2,79	2,74	2,70	2,65	2,61	2,57	2,53	2,50	2,47	2,45	2,42	2,41	2,40
	9,65	7,20	6,22	5,67	5,32	5,07	4,88	4,74	4,63	4,54	4,46	4,40	4,29	4,21	4,10	4,02	3,94	3,86	3,80	3,74	3,70	3,66	3,62	3,50
12	4,75	3,88	3,49	3,26	3,11	3,00	2,92	2,85	2,80	2,76	2,72	2,69	2,64	2,60	2,54	2,50	2,46	2,42	2,40	2,36	2,35	2,32	2,31	2,30
	9,38	6,93	5,95	5,41	5,06	4,82	4,65	4,50	4,39	4,30	4,22	4,16	4,05	3,98	3,86	3,78	3,70	3,61	3,56	3,49	3,46	3,41	3,38	3,36
13	4,67	3,80	3,41	3,18	3,02	2,92	2,84	2,77	2,72	2,67	2,63	2,60	2,55	2,51	2,46	2,42	2,38	2,34	2,32	2,28	2,26	2,24	2,22	2,21
	9,07	6,70	5,74	5,20	4,86	4,62	4,44	4,30	4,19	4,10	4,02	3,96	3,85	3,78	3,67	3,59	3,51	3,42	3,37	3,30	3,27	3,21	3,18	3,16
14	4,60	3,74	3,34	3,11	2,96	2,85	2,77	2,70	2,65	2,60	2,56	2,53	2,48	2,44	2,39	2,35	2,31	2,27	2,24	2,21	2,19	2,16	2,14	2,13
	8,86	6,51	5,56	5,03	4,69	4,46	4,28	4,14	4,03	3,94	3,86	3,80	3,70	3,62	3,51	3,43	3,34	3,26	3,21	3,14	3,11	3,06	3,02	3,00
15	4,54	3,68	3,29	3,06	2,90	2,79	2,70	2,64	2,59	2,55	2,51	2,48	2,43	2,39	2,33	2,29	2,25	2,21	2,18	2,15	2,12	2,10	2,08	2,07
	8,68	6,36	5,42	4,89	4,56	4,32	4,14	4,00	3,89	3,80	3,73	3,67	3,56	3,48	3,36	3,29	3,20	3,12	3,07	3,00	2,97	2,92	2,89	2,87
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,54	2,49	2,45	2,42	2,37	2,33	2,28	2,24	2,20	2,16	2,13	2,09	2,07	2,04	2,02	2,01
	8,53	6,23	5,29	4,77	4,44	4,20	4,03	3,89	3,78	3,69	3,61	3,55	3,45	3,37	3,25	3,18	3,10	3,01	2,96	2,89	2,86	2,80	2,77	2,75
17	4,45	3,59	3,20	2,96	2,81	2,70	2,62	2,55	2,50	2,45	2,41	2,38	2,33	2,29	2,23	2,19	2,15	2,11	2,08	2,04	2,02	1,99	1,97	1,96
	8,40	6,11	5,18	4,67	4,34	4,10	3,93	3,79	3,68	3,59	3,52	3,45	3,35	3,27	3,16	3,08	3,00	2,92	2,86	2,79	2,76	2,70	2,67	2,65
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,46	2,41	2,37	2,34	2,29	2,25	2,19	2,15	2,11	2,07	2,04	2,00	1,98	1,96	1,93	1,92
	8,28	6,01	5,09	4,58	4,25	4,01	3,85	3,71	3,60	3,51	3,44	3,37	3,27	3,19	3,07	3,00	2,91	2,84	2,78	2,71	2,68	2,62	2,59	2,57
19	4,38	3,52	3,13	2,90	2,74	2,63	2,55	2,48	2,43	2,38	2,34	2,31	2,26	2,21	2,15	2,11	2,07	2,02	2,00	1,96	1,94	1,91	1,90	1,88
	8,18	5,93	5,01	4,50	4,17	3,94	3,77	3,63	3,52	3,43	3,36	3,30	3,19	3,12	3,00	2,92	2,84	2,76	2,70	2,63	2,60	2,54	2,51	2,49
20	4,35	3,49	3,10	2,87	2,71	2,60	2,52	2,45	2,40	2,35	2,31	2,26	2,23	2,18	2,12	2,08	2,04	1,99	1,96	1,92	1,90	1,87	1,85	1,84
	8,10	5,85	4,94	4,48	4,10	3,87	3,71	3,56	3,45	3,37	3,30	3,23	3,13	3,05	2,94	2,86	2,77	2,69	2,63	2,56	2,53	2,47	2,44	2,42
21	4,32	3,47	3,07	2,84	2,68	2,57	2,49	2,42	2,37	2,32	2,28	2,25	2,20	2,15	2,09	2,05	2,00	1,96	1,93	1,89	1,87	1,84	1,82	1,81
	8,02	5,78	4,87	4,37	4,04	3,81	3,65	3,51	3,40	3,31	3,24	3,17	3,07	2,99	2,88	2,80	2,72	2,63	2,58	2,51	2,47	2,42	2,38	2,36
22	4,30	3,44	3,05	2,82	2,66	2,55	2,47	2,40	2,35	2,30	2,26	2,23	2,18	2,13	2,07	2,03	1,98	1,93	1,91	1,87	1,84	1,81	1,80	1,78
	7,94	5,72	4,82	4,31	3,99	3,76	3,59	3,45	3,35	3,26	3,18	3,12	3,02	2,94	2,83	2,75	2,67	2,58	2,53	2,46	2,42	2,37	2,33	2,31
23	4,28	3,42	3,03	2,80	2,64	2,53	2,45	2,38	2,32	2,28	2,24	2,20	2,14	2,10	2,04	2,00	1,96	1,91	1,88	1,84	1,82	1,79	1,77	1,76
	7,88	5,66	4,76	4,26	3,94	3,71	3,54	3,41	3,30	3,21	3,14	3,07	2,97	2,89	2,78	2,70	2,62	2,53	2,48	2,41	2,37	2,32	2,28	2,26
24	4,26	3,40	3,01	2,78	2,62	2,51	2,43	2,36	2,30	2,26	2,22	2,18	2,13	2,09	2,02	1,98	1,94	1,89	1,86	1,82	1,80	1,76	1,74	1,73
	7,82	5,61	4,72	4,22	3,90	3,67	3,50	3,36	3,25	3,17	3,09	3,03	2,93	2,85	2,74	2,66	2,58	2,49	2,44	2,36	2,33	2,27	2,23	2,21
25	4,24	3,38	2,99	2,76	2,60	2,49	2,41	2,34	2,28	2,24	2,20	2,16	2,11	2,06	2,00	1,96	1,92	1,87	1,84	1,80	1,77	1,74	1,72	1,71
	7,77	5,57	4,68	4,18	3,86	3,63	3,46	3,32	3,21	3,13	3,05	2,99	2,89	2,81	2,70	2,62	2,54	2,45	2,40	2,32	2,29	2,23	2,19	2,17

df																								
26	4,22	3,37	2,89	2,74	2,59	2,47	2,39	2,32	2,27	2,22	2,18	2,15	2,10	2,05	1,99	1,95	1,90	1,85	1,82	1,78	1,76	1,72	1,70	1,69
	7,72	5,53	4,64	4,14	3,82	3,59	3,42	3,29	3,17	3,09	3,02	2,96	2,86	2,77	2,66	2,58	2,50	2,41	2,36	2,28	2,25	2,19	2,15	2,13
27	4,21	3,35	2,96	2,73	2,57	2,46	2,37	2,30	2,25	2,20	2,16	2,13	2,08	2,03	1,97	1,93	1,88	1,84	1,80	1,76	1,74	1,71	1,68	1,67
	7,68	5,49	4,60	4,11	3,79	3,56	3,39	3,26	3,14	3,06	2,98	2,93	2,83	2,74	2,63	2,55	2,47	2,38	2,33	2,25	2,21	2,16	2,12	2,10
28	4,20	3,34	2,95	2,71	2,56	2,44	2,36	2,29	2,24	2,19	2,15	2,12	2,06	2,02	1,96	1,91	1,87	1,81	1,78	1,75	1,72	1,69	1,67	1,65
	7,64	5,45	4,57	4,07	3,76	3,53	3,36	3,23	3,11	3,03	2,95	2,90	2,80	2,71	2,60	2,52	2,44	2,35	2,30	2,22	2,18	2,13	2,09	2,06
29	4,18	3,33	2,93	2,70	2,54	2,43	2,35	2,28	2,22	2,18	2,14	2,10	2,05	2,00	1,94	1,90	1,85	1,80	1,77	1,73	1,71	1,68	1,65	1,64
	7,60	5,52	4,54	4,04	3,73	3,50	3,33	3,20	3,08	3,00	2,92	2,87	2,77	2,68	2,57	2,49	2,41	2,32	2,27	2,19	2,15	2,10	2,06	2,03
30	4,17	3,32	2,92	2,69	2,53	2,42	2,34	2,27	2,21	2,16	2,12	2,09	2,04	1,99	1,93	1,89	1,84	1,79	1,76	1,72	1,69	1,66	1,64	1,62
	7,56	5,39	4,51	4,02	3,70	3,47	3,30	3,17	3,06	2,98	2,90	2,84	2,74	2,66	2,55	2,47	2,38	2,29	2,24	2,16	2,13	2,07	2,03	2,01
32	4,15	3,30	29,00	2,67	2,51	2,40	2,32	2,25	2,19	2,14	2,10	2,07	2,02	1,97	1,91	1,86	1,82	1,76	1,74	1,69	1,67	1,64	1,61	1,59
	7,50	5,34	4,46	3,97	3,66	3,42	3,25	3,12	3,01	2,94	2,86	2,80	2,70	2,62	2,51	2,42	2,34	2,25	2,20	2,12	2,08	2,02	1,98	1,96
34	4,13	3,28	2,88	2,65	2,49	2,38	2,30	2,23	2,17	2,12	2,08	2,05	2,00	1,95	1,89	1,84	1,80	1,74	1,71	1,67	1,64	1,61	1,59	1,57
	7,44	5,29	4,42	3,93	3,61	3,38	3,21	3,08	2,97	2,89	2,82	2,76	2,66	2,58	2,47	2,38	2,30	2,21	2,15	2,08	2,04	1,98	1,94	1,91
36	4,11	3,26	2,86	2,63	2,48	2,36	2,28	2,21	2,15	2,10	2,06	2,03	1,98	1,93	1,87	1,82	1,78	1,72	1,69	1,65	1,62	1,59	1,56	1,55
	7,39	5,25	4,38	3,89	3,58	3,35	3,18	3,04	2,94	2,86	2,78	2,72	2,62	2,54	2,43	2,35	2,26	2,17	2,12	2,04	2,00	1,94	1,90	1,87
38	4,10	3,25	2,85	2,62	2,46	2,35	2,26	2,19	2,14	2,09	2,05	2,02	1,96	1,92	1,85	1,80	1,76	1,71	1,67	1,63	1,60	1,57	1,54	1,53
	7,35	5,21	4,34	3,86	3,54	3,32	3,15	3,02	2,91	2,82	2,75	2,69	2,59	2,51	2,40	2,32	2,22	2,14	2,08	2,00	1,97	1,90	1,86	1,84
40	4,08	3,23	2,84	2,61	2,45	2,34	2,25	2,18	2,12	2,07	2,04	2,00	1,95	1,90	1,84	1,79	1,74	1,69	1,66	1,61	1,59	1,55	1,53	1,51
	7,31	5,18	4,31	3,83	3,51	3,29	3,12	2,99	2,88	2,80	2,73	2,66	2,56	2,49	2,37	2,29	2,20	2,11	2,05	1,97	1,94	1,88	1,84	1,81
42	4,07	3,22	2,83	2,59	2,44	2,32	2,24	2,17	2,11	2,06	2,02	1,99	1,94	1,89	1,82	1,78	1,73	1,68	1,64	1,60	1,57	1,54	1,51	1,49
	7,27	5,15	4,29	3,80	3,49	3,26	3,10	2,96	2,86	2,77	2,70	2,64	2,54	2,46	2,35	2,26	2,17	2,08	2,02	1,94	1,91	1,85	1,80	1,78
44	4,06	3,21	2,82	2,58	2,43	2,31	2,23	2,16	2,10	2,05	2,01	1,98	1,92	1,88	1,81	1,76	1,72	1,66	1,63	1,58	1,56	1,52	1,50	1,48
	7,24	5,12	4,26	3,78	3,46	3,24	3,07	2,94	2,84	2,75	2,68	2,62	2,52	2,44	2,32	2,24	2,17	2,06	2,00	1,92	1,88	1,82	1,78	1,75
46	4,05	3,20	2,81	2,57	2,42	2,30	2,22	2,14	2,09	2,04	2,00	1,97	1,91	1,87	1,80	1,75	1,71	1,65	1,62	1,57	1,54	1,51	1,48	1,46
	7,21	5,10	4,24	3,76	3,44	3,22	3,05	2,92	2,82	2,73	2,66	2,60	2,50	2,42	2,32	2,22	2,15	2,04	1,98	1,90	1,86	1,80	1,76	1,72
48	4,04	3,19	2,80	2,56	2,41	2,30	2,21	2,14	2,08	2,03	1,99	1,96	1,90	1,86	1,79	1,74	1,70	1,64	1,61	1,56	1,53	1,50	1,47	1,45
	7,19	5,08	4,22	3,74	3,42	3,20	3,04	2,90	2,80	2,71	2,64	2,58	2,48	2,40	2,28	2,20	2,13	2,02	1,96	1,88	1,84	1,78	1,73	1,70
50	4,03	3,18	2,79	2,56	2,40	2,29	2,20	2,13	2,07	2,02	1,98	1,95	1,90	1,85	1,78	1,74	1,69	1,63	1,60	1,55	1,52	1,48	1,46	1,44
	7,17	5,06	4,20	3,72	3,44	3,18	3,02	2,88	2,78	2,70	2,62	2,56	2,46	2,39	2,26	2,18	2,10	2,00	1,94	1,86	1,82	1,76	1,71	1,68
55	4,02	3,17	2,78	2,54	2,38	2,27	2,18	2,11	2,05	2,00	1,97	1,93	1,88	1,83	1,76	1,72	1,67	1,61	1,58	1,52	1,50	1,46	1,43	1,41
	7,12	5,01	4,16	3,65	3,37	3,15	2,98	2,85	2,75	2,66	2,59	2,53	2,43	2,35	2,23	2,15	2,00	1,96	1,90	1,82	1,78	1,71	1,66	1,64
60	4,00	3,15	2,76	2,52	2,37	2,25	2,17	2,10	2,04	1,99	1,95	1,92	1,86	1,81	1,75	1,70	1,65	1,59	1,56	1,50	1,48	1,44	1,41	1,39
	7,08	4,98	4,13	3,65	3,34	3,12	2,95	2,82	2,72	2,63	2,56	2,50	2,40	2,32	2,20	2,12	2,03	1,93	1,87	1,79	1,74	1,68	1,63	1,60
65	3,99	3,14	2,75	2,51	2,36	2,21	2,15	2,08	2,02	1,98	1,94	1,90	1,85	1,80	1,73	1,68	1,63	1,57	1,54	1,49	1,46	1,42	1,39	1,37
	7,01	4,95	4,10	3,52	3,31	3,09	2,93	2,79	2,70	2,61	2,54	2,47	2,37	2,30	2,18	2,09	2,00	1,90	1,84	1,76	1,71	1,64	1,60	1,56
70	3,98	3,13	2,74	2,50	2,35	2,32	2,14	2,07	2,01	1,97	1,93	1,89	1,84	1,79	1,72	1,67	1,62	1,56	1,53	1,47	1,45	1,40	1,37	1,35
	7,01	4,92	4,08	3,60	3,29	3,07	2,91	2,77	2,67	2,59	2,51	2,45	2,35	2,28	2,15	2,07	1,98	1,88	1,82	1,74	1,69	1,63	1,56	1,53
80	3,96	3,11	2,72	2,48	2,33	2,21	2,12	2,05	1,99	1,95	1,91	1,88	1,82	1,77	1,70	1,65	1,60	1,54	1,51	1,45	1,42	1,38	1,35	1,32
	6,96	4,88	4,01	3,58	3,25	3,04	2,87	2,74	2,64	2,55	2,48	2,44	2,32	2,24	2,11	2,03	1,94	1,84	1,78	1,70	1,65	1,57	1,52	1,49
100	3,94	3,09	2,70	2,46	2,30	2,19	2,10	2,03	1,97	1,92	1,88	1,85	1,79	1,75	1,68	1,63	1,57	1,51	1,48	1,42	1,39	1,34	1,30	1,28
	6,90	4,82	3,98	3,51	3,20	2,99	2,82	2,69	2,59	2,51	2,43	2,36	2,26	2,19	2,06	1,98	1,89	1,79	1,73	1,64	1,59	1,51	1,46	1,43
125	3,92	3,07	2,68	2,44	2,29	2,17	2,08	2,01	1,95	1,90	1,86	1,83	1,77	1,72	1,65	1,60	1,55	1,49	1,45	1,39	1,36	1,31	1,27	1,25
	6,84	4,78	3,94	3,47	3,17	2,95	2,79	2,65	2,56	2,47	2,40	2,33	2,23	2,15	2,03	1,94	1,85	1,75	1,68	1,59	1,54	1,46	1,40	1,37
150	3,91	3,06	2,67	2,43	2,27	2,16	2,07	2,00	1,94	1,89	1,85	1,82	1,76	1,71	1,64	1,59	1,54	1,47	1,44	1,37	1,34	1,29	1,25	1,22
	6,81	4,75	3,91	3,44	3,13	2,92	2,76	2,62	2,53	2,44	2,37	2,30	2,20	2,12	2,00	1,91	1,83	1,72	1,66	1,56	1,51	1,43	1,37	1,33
200	3,89	3,04	2,65	2,41	2,26	2,14	2,05	1,98	1,92	1,87	1,83	1,80	1,74	1,69	1,62	1,57	1,52	1,45	1,42	1,35	1,32	1,26	1,22	1,19
	6,76	4,71	3,88	3,41	3,11	2,90	2,73	2,60	2,50	2,41	2,34	2,28	2,17	2,09	1,97	1,88	1,79	1,69	1,62	1,53	1,48	1,39	1,33	1,28
400	3,86	3,02	2,62	2,39	2,23	2,12	2,03	1,96	1,90	1,85	1,81	1,78	1,72	1,67	1,60	1,54	1,49	1,42	1,38	1,32	1,28	1,22	1,16	1,13
	6,70	4,66	3,83	3,36	3,06	2,85	2,69	2,55	2,46	2,37	2,29	2,23	2,12	2,04	1,92	1,84	1,74	1,64	1,57	1,47	1,42	1,32	1,24	1,19
1000	3,85	3,00	2,61	2,38	2,22	2,10	2,02	1,95	1,89	1,84	1,80	1,76	1,70	1,65	1,58	1,53	1,47	1,41	1,36	1,30	1,26	1,19	1,13	1,08
	6,66	4,62	3,80	3,34	3,04	2,82	2,66	2,53	2,43	2,34	2,26	2,20	2,09	2,01	1,89	1,81	1,71	1,61	1,54	1,44	1,38	1,28	1,19	1,11
∞	3,84	2,99	2,60	2,37	2,21	2,09	2,01	1,94	1,88	1,83	1,79	1,75	1,69	1,64	1,57	1,52	1,46	1,40	1,35	1,28	1,24	1,17	1,11	1,00
	6,64	4,60	3,78	3,32	3,02	2,80	2,64	2,51	2,41	2,32	2,24	2,18	2,07	1,99	1,87	1,79	1,69	1,59	1,52	1,41	1,36	1,25	1,12	1,00

Source: Sudjana. *Metoda Statistika*. Bandung: Tarsito, 2002

PERCENTAGE POINTSOF T DISTRIBUTION

DF	A	0.80	0.90	0.95	0.98	0.99	0.995	0.998	0.999
	P	0.20	0.10	0.05	0.02	0.01	0.005	0.002	0.001
1		3.078	6.314	12.706	31.820	63.657	127.321	318.309	636.619
2		1.886	2.920	4.303	6.965	9.925	14.089	22.327	31.599
3		1.638	2.353	3.182	4.541	5.841	7.453	10.215	12.924
4		1.533	2.132	2.776	3.747	4.604	5.598	7.173	8.610
5		1.476	2.015	2.571	3.365	4.032	4.773	5.893	6.869
6		1.440	1.943	2.447	3.143	3.707	4.317	5.208	5.959
7		1.415	1.895	2.365	2.998	3.499	4.029	4.785	5.408
8		1.397	1.860	2.306	2.897	3.355	3.833	4.501	5.041
9		1.383	1.833	2.262	2.821	3.250	3.690	4.297	4.781
10		1.372	1.812	2.228	2.764	3.169	3.581	4.144	4.587
11		1.363	1.796	2.201	2.718	3.106	3.497	4.025	4.437
12		1.356	1.782	2.179	2.681	3.055	3.428	3.930	4.318
13		1.350	1.771	2.160	2.650	3.012	3.372	3.852	4.221
14		1.345	1.761	2.145	2.625	2.977	3.326	3.787	4.140
15		1.341	1.753	2.131	2.602	2.947	3.286	3.733	4.073
16		1.337	1.746	2.120	2.584	2.921	3.252	3.686	4.015
17		1.333	1.740	2.110	2.567	2.898	3.222	3.646	3.965
18		1.330	1.734	2.101	2.552	2.878	3.197	3.610	3.922
19		1.328	1.729	2.093	2.539	2.861	3.174	3.579	3.883
20		1.325	1.725	2.086	2.528	2.845	3.153	3.552	3.850
21		1.323	1.721	2.080	2.518	2.831	3.135	3.527	3.819
22		1.321	1.717	2.074	2.508	2.819	3.119	3.505	3.792
23		1.319	1.714	2.069	2.500	2.80	3.104	3.485	3.768

24			1.318	1.711	2.064	2.492	2.797	3.090	3.467	3.745
25			1.316	1.708	2.060	2.485	2.787	3.078	3.450	3.725
26			1.315	1.706	2.056	2.479	2.779	3.067	3.435	3.707
27			1.314	1.703	2.052	2.473	2.771	3.057	3.421	3.690
28			1.313	1.701	2.048	2.467	2.763	3.047	3.408	3.674
29			1.311	1.699	2.045	2.462	2.756	3.038	3.396	3.659
30			1.310	1.697	2.042	2.457	2.750	3.030	3.385	3.646
31			1.309	1.695	2.040	2.453	2.744	3.022	3.375	3.633
32			1.309	1.694	2.037	2.449	2.738	3.015	3.365	3.622
33			1.308	1.692	2.035	2.445	2.733	3.008	3.356	3.611
34			1.307	1.691	2.032	2.441	2.728	3.002	3.348	3.601
35			1.306	1.690	2.030	2.438	2.724	2.996	3.340	3.591
36			1.306	1.688	2.028	2.434	2.719	2.991	3.333	3.582
37			1.305	1.687	2.026	2.431	2.715	2.985	3.326	3.574
38			1.304	1.686	2.024	2.429	2.712	2.980	3.319	3.566
39			1.304	1.685	2.023	2.426	2.708	2.976	3.313	3.558
40			1.303	1.684	2.021	2.423	2.704	2.971	3.307	3.551
42			1.302	1.682	2.018	2.418	2.698	2.963	3.296	3.538
44			1.301	1.680	2.015	2.414	2.692	2.956	3.286	3.526
46			1.300	1.679	2.013	2.410	2.687	2.949	3.277	3.515
48			1.299	1.677	2.011	2.407	2.682	2.943	3.269	3.505
50			1.299	1.676	2.009	2.403	2.678	2.937	3.261	3.496
60			1.296	1.671	2.000	2.390	2.660	2.915	3.232	3.460
120			1.289	1.658	1.980	2.358	2.617	2.860	3.160	3.373
150			1.287	1.655	1.976	2.351	2.609	2.849	3.145	3.357
200			1.286	1.652	1.972	2.345	2.601	2.839	3.131	3.340
300			1.284	1.650	1.968	2.339	2.592	2.828	3.118	3.323
500			1.283	1.648	1.965	2.334	2.586	2.820	3.107	3.310
∞			1.282	1.645	1.960	2.326	2.576	2.807	3.090	3.291