THE COMPARATIVE STUDY BETWEEN QAR STRATEGY AND PQRS STRATEGY ON STUDENTS' READING COMPREHENSION AT GRADE VIII MTs N 1 SIPIROK

A THESIS

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

By:

AHMADI PENGHARAPAN PANE
Reg. No. 11 340 0046

ENGLISH EDUCATION DEPARTMENT

TARBIYAH AND TEACHER TRAINING FACULTY
STATE INSTITUTE FOR ISLAMIC STUDIES
PADANGSIDIMPUAN
2016

THE COMPARATIVE STUDY BETWEEN QAR STRATEGY

AND PQRS STRATEGY ON STUDENTS' READING COMPREHENSION

AT GRADE VIII MTs N 1 SIPIROK

A THESIS

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

By:

AHMADI PENGHARAPAN PANE
Reg. No. 11 340 0046

ENGLISH EDUCATION DEPARTMENT

TARBIYAH AND TEACHER TRAINING FACULTY
STATE INSTITUTE FOR ISLAMIC STUDIES
PADANGSIDIMPUAN
2016

THE COMPARATIVE STUDY BETWEEN QAR STRATEGY AND PQRS STRATEGY ON STUDENTS' READING COMPREHENSION AT GRADE VIII MTs N 1 SIPIROK

A THESIS

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

By:
AHMADI PENGHARAPAN PANE
Reg. No. 11 340 0046

Advisor I   **Advisor II**

EKA SUSTRI HARIDA, M.Pd   **SOJUANGON RAMBE , S.S., M.Pd**
NIP. 19750917 200312 2 002   **NIP. 19790815 200604 1 003**

ENGLISH EDUCATION DEPARTMENT

TARBIYAH AND TEACHER TRAINING FACULTY
STATE INSTITUTE FOR ISLAMIC STUDIES
PADANGSIDIMPUAN
2016

Term   : Thesis
         a.n. Ahmadi Pengharapan Pane
Item   : 7 (seven) exemplars

Padangsidimpuan,   Maret 2016
To :
Dean Tarbiyah and Teacher
Training Faculty
in –
Padangsidimpuan

Assalamu'alaikumWr. Wb.

After reading, studying and giving advice for necessary revision on thesis belongs to Ahmadi Pengharapan Pane, entitle **"The Comparative Study Between QAR Strategy and PQRS Strategy on Students' Reading Comprehension at Grade VIII MTsN 1 Sipirok"**, we assume that the thesis has been acceptable to complete the assignment and fulfill for the degree of Islamic Educational Scholar (S.Pd.I) in English, Tarbiyah and Teacher Training Faculty in IAIN Padangsidimpuan.

Therefore, we hoped he could be defined his thesis in Munaqosyah. That is all and thanks you for the attention.
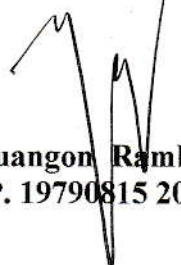
Wassalamu'alaikum Wr. Wb.

Advisor I

Eka Sustri Harida, M.Pd
NIP.197509172003122 002

Advisor II

Sojuangon Rambe, S.S., M. Pd
NIP. 19790815 200604 1 003

DECLARATION OF SELF THESIS COMPLETION

The name who signed here:

Name   : AHMADI PENGHARAPAN PANE

Registration Number   : 11 340 0046

Faculty/ Department   : Tarbiyah and Teacher Training Faculty/ English Education Department

Thesis   : **THE COMPARATIVE STUDY BETWEEN QAR STRATEGY AND PQRS STRATEGY ON STUDENTS' READING COMPREHENSION AT GRADE VIII MTs N 1 SIPIROK**

     I here, by declare that I have a arranged and written the thesis by myself, without asking for illegal help from other except that guidance from advisors, and without doing plagiarism as it is required in students' ethic code of IAIN Padangsidimpuan article 14. Verse 2.

     I do this declaration trustfully. If there is deceitfulness and incorrectness regarding to this declaration in the future, I will be willing to get punishment as it is required in students' ethic code of IAIN Padangsidimpuan, article 19 verses 4, that is to cancel academic degree disrespectfully, and other punishment regarding norms and legal low.

Padangsidimpuan, Maret 2016
Assertive Researcher

AHMADI PENGHARAPAN PANE
Reg. No. 11 340 0046

AGGREEMENT PUBLICATION OF FINAL TASK FOR ACADEMIC CIVITY

As Academic Civity of The State Institute for Islamic Studies Padangsidimpuan, the name who is signed here:

Name   : **AHMADI PENGHARAPAN PANE**
Nim   : 11 340 0046
Faculty/Department : Tarbiyah and Teacher Training Faculty/TBI-2
Kinds   : Thesis

To develop science and knowledge, I hear by declare that I present the State Institute for Islamic Studies Padangsidimpuan**Non-exclusive Royalty Right** on my thesis with the title:

"THE COMPARATIVE STUDY BETWEEN QAR STRATEGY AND PQRS STRATEGY ON STUDENTS' READING COMPREHENSION AT GRADE VIII MTs N 1 SIPIROK"
With all the sets of equipment (if needed). Based on this **Non-exclusive Royalty Right,** the State Institute for Islamic Studies Padangsidimpuan has the right to save, to format, organize in database form, to keep and publish thesis for as I am determined as a writer and owner of its creative right.

Above all, thus statement is made true heartedly.

Made in: Padangsidimpuan

Date   :   2016

Signed

AHMADI PENGHARAPAN PANE
Reg. No. 11 3400046

EXAMINERS

SCHOLAR MUNAQOSYAH EXAMINATION

Name   : AHMADI PENGHARAPAN PANE

Reg. No   : 11 340 0046

Thesis   : THE COMPARATIVE STUDY BEETWEEN QAR STRATEGY AND PQRS STRATEGY ON STUDENTS' READING COMPREHENSION AT GRADE VIII MTs N 1 SIPIROK.

Chief,   Secretary,

Rayendriani Fahmei Lubis, M.Ag.   Eka Sustri Harida, M.Pd

NIP. 19710510 200003 2 001   NIP. 19750917 200312 2 002
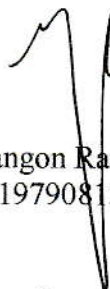
Members,

Rayendriani Fahmei Lubis, M.Ag.   Eka Sustri Harida, M.Pd

NIP. 19710510 200003 2 001   NIP. 19750917 200312 2 002

Sojuangon Rambe, S.S., M.Pd   Yusni Sinaga,S.Pd.,M.Hum

NIP. 19790815 200604 1 003   NIP.19700715 200501 2 010

Proposed :

Place   : Padangsidimpuan

Date   : March, 18 th 2016

Time   : 10.00-11.45

Result / Mark : 76,62

IPK   : 3,33

Predicate   : Very Good

LEGALIZATION

Thesis   : THE COMPARATIVE STUDY BETWEEN QAR STRATEGY AND PQRS STRATEGY ON STUDENTS' READING COMPREHENSION AT GRADE VIII MTs N 1 SIPIROK

Written By   : AHMADI PENGHARAPAN PANE

Reg. No   : 11 340 0046

The Thesis had been accepted as a partial fulfillment of the requirement for the degree of graduate of Islamic education (S.Pd.I) in English

Padangsidimpuan, 6 April 2016

Dean

Hj. ZULHIMMA, S.A.g., M.Pd.
NIP: 19720702 199703 2 003

ACKNOWLEDGEMENT

بسم الله الرحمن الرحيم

First of all, I would like to say thank you to Allah the Almighty who has given me time and healthy in finishing this thesis. Next, I do not forget to send Shalawat to our Prophet Muhammad SAW who has guided us to have good life.

This thesis is presented to the English Department of the State Institute for Islamic Studies (IAIN) Padangsidimpuan as a Partial Fulfillment of the Requirement for the Degree of Islamic Education Scholar (S.Pd.I).This thesis can't be completed without a great deal of help from many people, especially Mrs. EkaSustriHarida, M.Pd is as the first advisor and Mr. Sojuangon Rambe, S.S., M.Pd is as the second advisor who always give their time, valuable help, guidance, correction, and suggestion for completion of this thesis.

My deepest gratitude also goes to those who have helped the me in finishing this thesis, among others:

1. Dr. H. Ibrahim Siregar, MCL, is as the Rector of State Institute for Islamic Studies Padangsidimpuan.

2. Mrs. Hj. Zulhimma, S.Ag.,M.Pd., is as the dean of Tarbiyah and Teaching Training Faculty.

3. Mrs. RayendrianiFahmeiLubis, M.Ag., is as the Leader of English Department.

4. All lecturers and staff of IAIN Padangsidimpuan who have given their valuable, advice, and cooperative.

5. Mr H. Ali Aspan, S.Ag., is as the head master of MTs N 1 Sipirokwho has helped to complete this research as well as his students for the helping, has given to me.

6. My beloved parent (H. Muharram Pane and Hj. Amelia Ritonga), my beloved brother(Abdul Muiz Pane), my beloved sisters (Nuraisyah Pane and Gina Sonia

Pane)who always give their materials, pray, motivation, and moral encouragement to finish my studying.

7. My beloved friends ShabrinaRasyidMunthe,S.Pd.I., IsmiRuqqayyahAsral,S.Pd.I.,and especially all of TBI-2 thanks' for your help, patient and attention to support to finish my writing.

8. All my friends in IAIN Padangsidimpuan, good luck for you.

9. All the people who have helped me to finish my study that I can't mention one by one.

May Allah, The Almighty bless them all, Amin.

Padangsidimpuan, 18 Februari2016

Declaration maker

AhmadiPangharapan Pane
Reg. No. 11 340 0046

Name   : Ahmadi Pengharapan Pane
Register Number   : 11 340 0046
Faculty   : Tarbiyah and Teacher Training Faculty
Department   : English Education
The Title of the Thesis   :The Comparative Study between QAR
                                        Strategyand PQRS Strategy on Students' Reading
                                        Comprehension at Grade VIII MTs N 1 Sipirok.

ABSTRACT

This research concerned about the comparative study of Reading Comprehensionby using QAR strategyand PQRS strategyat Grade VIII of MTs N 1 Sipirok. The problems of this research were most of students have low achievement in reading comprehension,students do not have many vocabularies, students are low to answer the question about the text; they do not understand about main idea, supporting idea, and conclusion, students do not have good strategies in reading or they do not know reading strategies well.The purpose of this research was to find out the difference betweenQAR strategy and PQRS strategyon students' reading comprehensionat grade VIII MTs N 1 Sipirok.

This research employed experimental research. The population of this research was the eighth at grade VIII MTs N 1 Sipirok. The total of population is3 classes. Then, the sample of the research was 2 classes, experiment class 1 (VIII-1) experiment class 2 (VIII-2). It was taken randomly after conducting normality and homogeneity test. To collect the data, researcher used test for measuring students' ability in writing descriptive text. To analyze the data, the researcher used t-test.

Based on the result of the research, researcher shown the description of the data was found that the result of experimental class was higher than control class (75.40>64.50), and the score of $t_{count}$was bigger than t_{table}(20.18> 1.997). It meant that the hypothesis alternative (H_a) was accepted. It was concluded that there was thedifference between students' reading comprehensionby using QAR strategyandPQRS strategyat Grade VIII MTs N 1 Sipirok.

TABLE OF CONTENTS

CHAPTER V. CONCLUSION AND SUGGESTION

REFERENCES
CURRICULUM VITAE
APPENDIXES

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIXES

CHAPTER I

INTRODUCTION

A. Background of the Problems

English is one of the most languages in the world. It is as a popular language and also as an international language. Actually, most of people use English in their daily life. In Indonesia, English is a foreign language which learn at school till university and being a compulsory subject in educational system. The goverment have made a great effort to develop in order to reach the expected purpose through national curriculum. Basically, Indonesia's curriculum said that there are four language skills that should be mastered by students.[1] Additionally, reading is one of most important skill in language learning besides listening, speaking, and writing; vocabulary, grammar, and also pronunciation are as the language parts.

Reading is one way to get the information from something that was written. In students' life, reading has importance to be used such as: enriching knowledge; developing capacity of thinking; and improving self confidence. The following illustrations will provide the utility of reading in students' life.

The first is reading has an important role to enrich knowledge, especially for the students. It is the process of finding and adding much information through the read of books, articles, magazines, journals, and

---

[1]Departement Pendidikan Nasional, "Standar Pendidikan Nasional", accessed from *http://www.dikti.go.id* at August 14th, 2015 on 10.16 p.m.

1

newspaper. Students can add much information that are provided in written form available on various topics, such as education, society, business, politic, economic, religion, and culture. By reading, students are able to know what kinds of situation in the world.

The second is reading as one basic activity to develop capacity of thinking. It is commonly said that reading can increase cognitive abilities. Reading is an activity or thinking process of cognition. It occurs when students accomodate the words or scheme in the students' brain. Reading also is an interaction among the reader, the situation, the task, and the text that results in the construction of meaning".[2] Students can use information already acquired to filter, interpret, organise, reflect upon and establish relationships with the new incoming information on the page. Hence, students are able to identify words rapidly, know the meaning of almost all of the words and able to combine units of meaning into a coherent message.

The last is reading can improve students' self confidence. Student who has a lot of knowledge or information from what they have read. Automatically, student has ability to speak well and of course more capable than others. Then, they do not doubt to express idea, thought, opinions, and perceptions to other because they believe that what they have just said have reference. So that, reading makes them confident.

---

[2]Gaskins, Satlow, and M. Pressley, Executive Control of Reading Comprehension in the Elementary School, In L. Meltzer (Ed.), *Executive Function in Education: from Theory to Practice*, (New York: Guilford, 1990), p.194.

In every level of education in Indonesia, English is one of the compulsory courses that is taught from primary school until university. It is based on the data in MTs N 1 Sipirok asserted the average students' reading comprehension achievement of grade VIII is about 63-65. Therefore, students' reading comprehension achievement do not fulfill the expectation.

The problems regard to reading comprehension is happened. *Firstly,* the students do not have many vocabularies. Having many vocabularies is one way to comprehend the sentences. But in reality, from the teacher's explanation about the ability of the students with Miss. Sapianapsah Siregar,[3] the students do not have many vocabularies. If the students are ordered by teacher to translate, they usually use the dictionary because they do not know the meaning of the words.

Secondly, the researcher interview some students answer the question about the text low. Due to some reasons, it is find that students do not understand the component of paragraph. They do not understand about main idea, supporting idea, and conclusion. Hence, to find the three components from the text, they get difficult to find all of components.

Last, students who do not have good strategy in reading the text when they read or they do not know reading strategy. It was caused by the teachers who do not use the strategy in reading process. So, the students do not apply the

---

[3]Sapianapsah Siregar as English Teacher at Grade VIII of MTs N 1 Sipirok, *Private Interview* at August 14th, 2015.

strategy when they are reading a book, especially reading English textbook. So that, it make them can not comprehend the text.

To make students comprehend the text, there are some strategies and method especially reading that can be used in the teaching-learning process. The strategies are Making Connection, SQ3R (Survey, Question, Read, Recite, and Review), PQ4R (Preview, Question, Read, Reflect, Recite, and Review), QAR (Question-Answer-Relationship), and PQRS (Preview, Question, Read, and Summarize).

First, making connection will help students understand what the author's purpose is and what the story is about. Students can use connections with any fiction or non-fiction text that students read. Second, SQ3R is a systematic reading study procedure designed to be used with content are materials that are organized through the use of reading, underlining, and other format cues that highlight important topics. Then, PQ4R can make the students to construct the information, making the question, reflecting, and also reviewing the information what they have got from the textbook.

The strategy that can be used like QAR strategy helps the students to consider both information in the text and information from their own background knowledge. Besides, PQRS strategy is four stages study strategy that will help students to read and understand their course material more effectively. The strategy involves approaching each chapter or sentence of a book. So, those are appropriate strategy to Junior High School students, especially beginner level.

From some alternative above, the researcher chooses between QAR strategy and PQRS strategy; first, students' learning material are textbooks which contain a lot of passages and assignment. The researcher reasons to choose QAR and PQRS as strategy to solve student's problem because the two strategies better used strategy on student's reading comprehension. Generally, QAR strategy can greatly aid students' abilities to answer question proficiently and PQRS strategy is a simple, step-by-step plan of action any students might adopt when faced with a reading comprehension assignment.[4] Second, QAR strategy make the reader is capable of acknowledging comprehension, making connections to prior knowledge or experiences, drawing inferences, or utilizing strategies to "fix up" comprehension gone awry.[5] PQRS can encourage use of some of the memory strategies alluded to above.[6] They made an elaborative link between what is learnt and what information is to look for. At this point, those strategies are very important to make connection between the students' mind to the reading text.[7] It will give time for them to explore their background knowledge in connecting with the text. Third, the students are still as Junior High School. QAR strategy is a reading comprehension strategy developed to improve

---

[4]Peter Westwood, *Reading and Difficulties: Approaches to Teaching and Assessment,* (Camber Well: National Library of Australia, 2001), p.62.

[5]C.C. Block, L. B.Gambrell, and M. Pressley, *Improving Comprehension Instruction: Rethinking Research, Theory, and Classroom Practice*, (CA: Jossey-Bass, 2002), p. 7.

[6]B. Johnston and T. Anderson, Information Literacy and Study Skills: An Overview of Research for LT Scotland accessed from *http://www.EducatioNscotland.gov.uk/Images/Overview_Of _researchv2_tcm4-285566.pdf,* at October 5th, 2013 on 07.08 p.m.

[7]Wayne Otto*, How to Teach Reading,* (America: Addison-Wesley Publishing Company, 1979), p. 161.

students' test-taking skill and the PQRS strategy is successful reading note-taking. Thus, those strategies can increase students' reading comprehension.

Based on the explanation above, the researcher is interested in comparing both of those strategy to do a research which entitle **"The Comparative Study between QAR Strategy and PQRS Strategy on Students' Reading Comprehension Text at Grade VIII MTs N 1 Sipirok".**

B. **Identification of the Problems**

Based on the background of this research, the problems are considered to be solved immediately. There are some problems in reading comprehension at grade VIII MTs N 1 Sipirok as following:

1. Students have low achievement in reading comprehension.

2. Students do not have many vocabularies.

3. Students are low to answer the question about the text; they do not understand about main idea, supporting idea, and conclusion.

4. Students do not have good strategies in reading or they do not know reading strategies well.

C. **Limitation of the Problem**

Based on the identification above, the researcher limits the problems on number 4, it is about reading strategies and want to know the influence to reading comprehension achievement by using narrative text. Because of the limitation of the researcher's time, ability, and cost, so that the researcher focuses in QAR (Question-Answer-Relationship) strategy and PQRS (Preview, Question, Read,

and Summarize) strategy. This research is conducted by experimental research at grade VIII MTs N 1 Sipirok, the first semester in the academic year of 2015/2016.

D. **Formulation of the Problem**

Based on limitation of the problem mentioned above, the problems of the research can be formulated as: Is there any significant difference between QAR (Question-Answer-Relationship) strategy and PQRS (Preview, Question, Read, and Summarize) strategy at grade VIII MTs N 1 Sipirok?.

E. **Objective of the Research**

The objective of the research is to examine the different effect between QAR (Question-Answer-Relationship) strategy and PQRS (Preview, Question, Read, and Summarize) strategy on students' reading comprehension text at grade VIII Mts N 1 Sipirok.

F. **Hypothesis of the Research**

Hypothesis of the research is "There is the significant different between QAR (Question-Answer-Relationship) strategy and PQRS (Preview, Question, Read, and Summarize) strategy on students' reading comprehension text at grade VIII MTs N 1 Sipirok".

G. **Significances of the Research**

This research has significances to the following area:

1. For the teachers, this research is expected to provide information, which may have practical as well as theoretical values for English language teacher. Theoretically, the results of this research inform English language teachers in their attempts to decide which of the best method in English teaching, especially teaching reading.

2. For the students, using appropriate method in learning make students enjoy to study and it make them to increase their motivation in learning, because one of the important factor to get successful learning is using appropriate method.

3. For other researcher, the result of this research is hoped to help the other researcher who will conduct further research in the same topic. This research can give them information and source about teaching method, especially QAR strategy and PQRS strategy. So that, it make them easier in their research.

H. **Definition of Operational Variable**

The researcher explains the variable below:

1. QAR Strategy

It means an effort in teaching reading comprehension that helps students to clarify reading text, recognize the different types of the questions asked and how a student goes finding the best answer of these questions.

2. PQRS Strategy

It is a teaching reading by activated students' mind because before reading a text, students are required to make preview, question read and summarize or revise the preview during and after reading the text.

3. Students' Reading Comprehension

Student make interaction between though and language and based evaluation of succes in comprehension on the extent to which the reader's reconstructed messages agrees with the writers and emphasis word.

Thus, a comparative study between QAR and PQRS on students' reading comprehension can be concluded as comparing between two strategies in comprehend text, the interaction generated and their effect on English learning that students get to make their reading comprehension better with which strategies is.

I. **The Outline of the Thesis**

The systematic of this thesis was divided into five chapters. Each chapter consist of many sub chapters with detail as follow:

Chapter one was about introduction, consist of background of the problem, identification of the problem, limitation of the problem, formulation of the problem, research objective, significant of the research, definition of operational variables, and outline of the thesis.

Chapter two was the theoretical description, which explain about: 1). QAR strategy consists of: defenition of QAR, types of QAR activities, the purposes of QAR strategy, and the steps of applying 2). PQRS strategy consists of: defenition of PQRS, the steps of applying PQRS strategy. In chapter two also discuss about review related finding, conceptual frame work, and hypothesis.

In the chapter three, it was consist of research methodology. It consists of time and place of the research; This research has been done from since write proposal until finish this research. Population and sample; The Population of Grade VIII Students of MTs N 1 Sipirok and the sample is VIII^2 and VIII^3. Instrument collecting data is test. Procedure of the research is pre-test, treatment, post-test. And the last the techniques of data analysis is t$_{test}$.

In the chapter four, it was the result of the research concern about description of data before using QAR strategy and PQRS strategy and description of data after using QAR strategy and PQRS strategy to students' reading comprehension, hypothesis testing, discussion and threats of the research.

Chapter five was the conclusion and suggestion.

CHAPTER II

LITERATURE REVIEW

A. Literature Review

The fundamental of research should be undertaken based on some relevant theoretical reviews. The research conducted based on reviews and discussions of some theories. There are the following theoretical reviews:

1. QAR (Question-Answer-Relationship) Strategy

The English language classroom certainly becomes a more varied and interesting environment when learning strategy becomes an integral part of learning. Using strategy gives the teachers a more holistic view of learning and spawns creativity in the development.[1]Second, QAR strategy make the reader is capable of acknowledging comprehension, making connections to prior knowledge or experiences, drawing inferences, or utilizing strategies to "fix up" comprehension gone awry.[2]Teaching by using strategy can help students become better language learners and help students to develop control over and responsibility for learning. In another word, using strategy in teaching-learning process also help the students become self-regulated language learner. By using strategies in teaching will increase students'

---

[1]David Nunan, *Practical English Language Teaching*, (New York: McGraw-Hill Companies, 2003), p.275.
[2]C.C. Block, L.B.Gambrell, and M. Pressley, *Improving Comprehension Instruction: Rethinking Research, Theory, and Classroom Practice*, (CA: Jossey-Bass, 2002), p. 7.

interest in learning. Many strategies are used in language teaching. However, teacher should be selective and thoughtful when choosing which strategies to teach for the students. Teaching too many strategies at one time will overwhelm and make students confuse in teaching-learning process. Teachers should look at the students instructional materials to determine which strategies to teach and when to introduce the strategies in the curriculum.[3]

Therefore, strategy has important role in teaching. The strategy helps the students to more interest in learning and makes the teaching-learning process to be effective and efficient. Teaching reading by using strategy included one of many efforts to make the teaching-learning process effectively and efficiently.

a. **The Definition of QAR Strategy**

The concept of QAR strategy is an important aspect that used to improve students' reading comprehension. QAR(Question-Answer-Relationship) strategy is developed by Taffy Raphael. QAR is a useful tool in encouraging students to actively read texts and comprehend the categories of questions based on the source of information essential for the answer.[4]It is used as a tool for clarifying how students can approach the task of reading texts and answering questions. It helps them realize the need to consider both

[3]Anna UhlChamot, et. al., *TheLearning Strategies Handbook*, (New York: Longman, 1999).p. 33.

[4]A. L. Sorrell, *Triadic Approach to Reading Comprehension Strategy Instruction*, (Austin: The 32nd Annual Conference Learning Disabilities Association of Texas, 1996), p. 4.

information in the text and information from their own background knowledge.

QAR is an effective strategy for all grade levels and subject areas. However, Raphael believes that this strategy is crucial to consider the students' age when selected the type and amount of instruction. QAR can be initially used with short, narrative texts and gradually progress to descriptive texts.[5] Additionally, it can be used with students with learning disabilities as well as students who are average and high achievers.

Often students assume that every question's answer is directly stated somewhere in the text, if only they look hard enough. Thus, many students spend far too much time looking for answers that are not "right there," and their frustration mounts. Students learn to categorize question by the type of information that is used to answer the questions.[6] It is a great way to help students figure out how to go about answering questions based on a given text.It increases students' reading comprehension especially test score.

This strategy also can be used throughout the reading process, when use specially to improve test-taking skills. It is important to make the connection between the types of question asked and how a student goes about finding

---

[5]T. E. Raphael, "Teaching Question-Answer-Relationships", *The Reading Teacher*, Vol. 39 No.6, accessed from *http://www.readingeducator.com/strategies/qar.html* at August 14th, 2015 on 05.00 a.m.
[6]Janette K. Klingner, et. al, *Teaching Reading Comprehension to Students with Learning Difficulties*, (New York: The Guildford Press, 2007), p. 110.

the best answer to some question. Therefore, it is helpful for students to understand that answer to some question will not find in the text.[7]

Based on the explanation above, teaching reading to students by using QAR (Question-Answer-Relationship) is a valuable strategy that will help them to understand the different types of questions and know how to effective and efficient approach the text based on the different question types. QAR is a reading strategy empowers students to think about the text they are reading and beyond it.

b. Types of QAR Activities

There are two types of QAR activities: "in-the-book" (text-explicit) and "in-my-head"(text-implicit). Basically, question can be answered by finding the answer "in-the-book".

1) In-the-book question can be divided into two categories:
   a) Right There: the answer is usually found in a single sentence within the text. Often the words in the question are also in the text.
   b) Think and Search: the answer is in the text, but might need to be combined with information found in more than one place.[8]

The researcher chooses in-the-book" (text-explicit) which right-there question to do this research. Typically, the questions used for "right there" questions are *who is..?, where is...?, what is..?, when is..?, how many..?, what kind of...?*etc. In addition, that type of question is the

---

[7]ESA 6 & 7.*On Target: Strategies to Improve Students Test Score, Grade 3-12*, (Rapid City: Black Hills Special Services Cooperative (BHSSC), 2005), p. 15.
    [8]*Ibid*, p. 16.

primary level of comprehension (literal comprehension).[9] Hence, this type will be appropriate with the students at grade VIII MtsN 1 Sipirok. With this type, students become aware of the relationships between questions and answers. Students will begin to understand where the answers come from and thus are better able to answer the questions correctly.

c.   **The Purposes of QAR Strategy**

QAR strategy is the reading strategy that helps students to answer many types of questions. There are six purposes of using QAR strategy:

1)   Help the students to unearth misconception and check for factual knowledge of the text.

2)   To discover how the students use exiting knowledge to formulate new understanding.

3)   To extend the length and complexity of the students respond.

4)   To gain further details about the text.

5)   To determine the learners' ability to problem solve.

6)   To stimulate imaginative thought.[10]

---

[9]L. H. Kinniburgh and S. S. Prew, *Questions Answer Relationship (QAR) in the Grading: Laying the Foundation for Reading Comprehension*, (International Journal of Early Childhood Special Education. 2010), p. 31.

[10]Douglas Fisher and Nancy Frey, *Guided Instruction, How to Develop Confidents and Successful Learners,* (USA: ASCD, 2010), p. 27.

From the explanation above, it can be concluded that the application of QAR strategy has some pedagogical significances for the learners and teacher in the teaching-learning process, especially in reading.

d. The Steps of Applying QAR Strategy

Procedure in QAR strategy should be provided to work it successfully. The following features by T. E. Raphael[11] may help teacher to develop materials for QAR as appropriate technique for teaching reading.

1) Explain the two broad categories of questions (and the four subcategories) to students as an introduction to the QAR strategy.

2) Provide a reading selection and a set of questions about its content. Model the placement of the questions in the framework of the QAR model.

3) Next, divide the class into small groups and provide each with a reading selection and a set of questions. Have the groups place the questions in the QAR framework.

4) Finally, provide the groups with a new reading selection and ask them to develop questions from its content. Have the students evaluate their own questions in light of the QAR framework.[12]

---

[11]T. E. Raphael. *"Teaching QAR", Op.Cit.,*
[12]*Ibid.,*

To make easier for understanding the teacher and the students activity

when the researcher will apply QAR strategy as stated below:

Table 1.
The Steps of Applying QAR Strategy

No	Teacher Activity	Students Activity
1	Explaining the two broad categories of questions (and the four subcategories) to students as an introduction to the QAR strategy.	Knowing the two broad categories of questions (In-the-book; Right-there, Think and Search), (In-my-head; on My Own, Author and Me).
2	Provide a reading selection and a set of questions about its content. Model the placement of the questions in the framework of the QAR model.	- Using narrative text as reading selection; - Understanding the questions used for "right there" questions are *who is..?, where is...?, what is..?, when is..?, how many..?, what kind of...?* etc.
3	- Next, divide the class into small groups and provide each with a reading selection and a set of questions. - Have the groups place the questions in the QAR framework.	- Each students in each groups. Every groups have narrative text. - Using the questions used for "right there" questions are *who is..?, where is...?, what is..?, when is..?, how many..?, what kind of...?* etc. with the text are given.
4	Finally, provide the groups with a new reading selection and ask them to develop questions from its content.	Have the students evaluate their own questions in light of the QAR framework.

From the explanation above, the researcher give the interpretation that by

using QAR strategy in the classroom can make teaching-learning process more

active between the teacher and the students.

2. PQRS (Preview, Question, Read, and Summarize) Strategy

a. The Definition of PQRS Strategy

The concept of PQRS strategy is also an important aspect that used to improve students' reading comprehension. PQRS strategy is developed by Russell by Peter Westwood in 1991.According to Peter Westwood said that PQRS strategy is a simple, step-by-step plan of action any students might adopt when faced with a reading comprehension assignment.[13] This strategy is same of behaviorist strategy training on reading comprehension. PQRS strategy is a well know plan that any students, regardless of age, may use when attempting to make meaning from the text.[14] Read through their strategy and apply it to the next piece of reading that you have to do in order to assess its effectiveness for all of the students. This strategy also involves approaching each chapter or sentences of abook.[15]

Based on explanation above, PQRS strategy is appropriate done by individual not in group, because in this strategy every students demand that they can build the information from the text with connecting their background knowledge or their past experience. It makes them actively.

---

[13]Peter Westwood, *Reading and Difficulties,* (New York: Rutledge Taylor and Francis Group, 2007), p.62.

[14]John Watson, *Principles of Language Learning and Teaching*, (Pearson Longman: San Francisco State University, 1993), p. 88.

[15]Peter Westwood, *Common Sense Methode for Children with Special Educational Needs-5ᵗʰ Edition,* (New York: Rutledge Taylor and Francis Group, 2007), p.108-110.

b. The Steps of Applying PQRS Strategy

PQRS strategy is four steps study strategy that stands for Preview, Question, Read, and Summarize, as follow:

1) Preview
Preview is used to make the students skim quickly section for cues to content and organization before the students been to read.[16] Do this by noting the title, major headings and subheadings, topic sentences, words or statements in italics or boldface. In addition, if the students cannot find the section in the book, the students can check the book page quickly; reading one sentence or some sentences in side of the text. So it will give the main point of the subject that will be learnt by students.
2) Question
In this step, the students should know when they have finished reading material. It gives their reading purpose and makes them an active participant in the process by arousing their interest and curiosity about the material.[17] Do this by turning the first heading in the chapter or section into a question. Moreover, the question that will the chapter or section into a question. Moreover, the question that will be used in this step iswhat, who, what, when, where, why, and how. Therefore, this step is very important in this strategy.
3) Read
In this step, the students should read through the section and focus in on finding the answers to their question, but read only to the end of the first section. The students should read until they can understand well what the author is saying in the section. The researcher as the teacher makes limitation time in reading text to students.
4) Summarize
In this stage, students write down the answers to all their questions in note form. Next, re-read each of their written answers to make sure that students have recorder all the important information. If there are any gaps, they should re-read the relevant section to find out what them misses.[18]

---

[16]Muskingum College, *Center for Advancement of Learning Strategis Database,* (Ohio: Muskingum College, 2011), p.71-74.
[17]*Ibid.,*
[18]*Ibid.,*

Summarizing is modeled as an activity of self-review; it is engaged in to state to the teacher or the group what had just happened in the text and as a self-test that the content has been understood. If an adequate synopsis cannot be reached, this fact is regarded not as a failure to perform a particular contextualized skill, but as an important source of information that comprehension is not proceeding as it should, and remedial action (such as re-reading or clarifying) is needed.[19] This strategy gives the reader the opportunity to find out the main ideas in the text, organize them and understand the relationships between them. It indicates the process of summing up the text and reproducing it in another form by following a group of procedures that keep the main ideas and develop the learners' abilities to focus on the important facts and proofs.

For example the teacher may say tell me briefly what the author wanted you to know.[20] Researcher concludes that summarizing is an activity of self-review to get comprehension about the text easily. Then summarizing activity develops the

---

[19]Palincsar A S and Brown A L. Reciprocal Teaching of Comprehension-Fostering and Comprehension-Monitoring Activities. Cognition Instruct. 1:117-75. 1984. Center for the Study of Reading, University of Illinois, Champaign-Urbana.IL. p. 122.

[20]Hamzah A. Omari and Hani A Weshah, Using the Reciprocal Teaching Method by Teacher at Jordanian Schools.*European Jurnal of Social Sciences*. 15:1:1-14. p. 27.

learners' abilities to focus on the important fact which is found in a text.

As practice by using the PQRS strategy, they will find the topic sentence, main ideas that they are learning more.[21] They will also create excellent study notes that they can use in class participation exercises, tests, and examinations.From the explanation above, the researcher concluded that the PQRS strategy can improve the students' ability in reading comprehension. Finally, researcher hoped that had a great success too in using PQRS strategy in teaching reading comprehension.

c.   **The Steps of Applying PQRS Strategy**

Fundamentally, there are some ways to apply PQRS strategy in teaching reading comprehension in the classroom as stated below:

Table 2.
The Steps of Applying PQRS Strategy[22]

Step	Teacher Activity	Students Activity
Step 1 *Preview*	- Giving student a text - Giving students a direction to read fast. - Askin the students to read the important part of the text.	- Read the title, section headings, and visual aids. - Read the first and the last paragraph to get general idea of the purpose and the major concept.
Step 2 *Question*	Question from the text using question word of	- Predict a question to be answer in the text.

---

[21]*Ibid.,* p.120.

[22]Trianto, *Mendesain Model Pembelajaran Inovatif-Progresif,* (Jakarta: Kencana Persada Prenada Media Grup, 2009), p. 154-156.

	what, who, what, when, where, why, and how	-	Convert heading into questions or draw from past experience/background knowledge to form the question.
Step 3 *Read*	- Asking students to answer their question.	- -	Read a text in its entirely. Carrefully read the complete text, recording notes in the margin or underlining important information that answer the question.
Step 4 *Summarize*	- Asking students to summarize main points from the hole text that have been learnt. - Asking students to check their work.	- -	Summarize main points and supporting details of the complete text. Make sure the question have been answered.

Based on the table above, eventhough every steps of applying PQRS strategy in the classroom have different activities. The researcher gives the interpretation that by using PQRS strategy in the classroom can make teaching-learning process more active between the teacher and the students.

3. **Reading Comprehension**

a. **The Definition of Reading Comprehension**

1) Reading

Reading is a way to get information from something that is written. Reading involves the introduction of symbols that make up a language. Read and Hear is the second most common way to get information. Brown says, "Reading is a process of negotiating

meaning; the reader brings to the text a set of schemata for understanding it, and it take is the product of that interaction".[23]

In conclusion, reading is an activity reader must be focused to attend and from printed or written message and process obtaining meaning from written text.

2) Comprehension

Comprehension is interpreting, translating from one understanding to another.[24] Comprehension is improving or testing understands of language (written and spoken) and comprehension needed reading and listening.

3) Reading Comprehension

Goodman in Wayne Otto says, "Reading comprehension is interaction between thought and language and bases evaluation of success in comprehension on the extent to which the reader's reconstructed message agrees with the writer's intended message".[25] Reading comprehension suggest that separate skills or tasks can be identified which, when used singly or incorrect, lead to understanding of a passage.

---

[23]H. Douglas Brown, *Language Assessment Principles and Classroom Practices,* (Pearson education Inc, 2004), p. 189.

[24]Donald C. Orlich,*Teaching Strategies A Guide to Better Instruction*, (America: D.C Health and Company, 1985), p. 85.

[25]Wayne Otto, How to Teach Reading.*Op.Cit.*,p. 151.

In conclusion, reading comprehension text is a constructive process of the visual information and corrects it with information in the text. Reading comprehension text must have interaction between the reader and the writer by having the same interpretation upon text.

b. The Purposes of Reading Comprehension

Reading comprehension is very important, because comprehension is the process by which a person understanding the meaning of written or spoken language. The functions are:

1) To make easy understand of reading text.

2) To drawing inference from content.

3) To following the structure of a passage.

4) To recognizing a writer purpose, attitude, tone and mood.

According to Lester and Allice Crow classify the purposes of reading into two general purposes, they are:

a) Leisure-time reading. It is reading for enjoyment which may vary in follow your favorite sport, article, comic and movie program.

b) More serious reading. It is reading to study for a goal such as to obtain factual information and solve problems.[26]

---

[26]Lester and Alice Crow, *How to Study: to Learn Better, Pass Examination, Get Better Grades,* (USA: Collier Macmillan Publisher, 1976), p. 53.

In brief, there are many purposes of reading comprehension that quitted by some expert. Actually, they have same meaning but they give explanation in different ways.

c. The Level of Comprehension

Reading with comprehension means reading with understanding the comprehension of written language involves the knowledge of vocabulary, structure and then situation in which language used. In other word, comprehension is the combination of knowledge among structure, vocabulary and the situation on largely comprehension, because the same structure or vocabulary on the combination of them might have the different meaning situation.

Smith in Wayne Otto said that, there are four level of comprehension:

1) Literal Comprehension

Literal comprehension is generally accepted as the most simple, basic, comprehension skill and one that requires little thinking or reasoning.

2) Interpretation

Definitely involves thinking skill and requires readers to identify ideas and meanings that are not explicitly stated in the written text. Within the interpretive level, reader may make

generalization determine cause and effect, identify motives, find relationship, predict ending, and make comparison.

3) Critical Reading

When individuals read critically, they evaluate what is read. That is, they examine critically the thought of the writer, which have been identified through the two lower levels of comprehension and judge their validity or worth.

4) Creative Reading

Creative reading going beyond what the author has written, applying ideas from the text to new situation and recombining the authors' ideas to form new concepts or to expand old ones. Through creative reading the reader creates something new an idea, the solution to a problem, a new way of looking at something from the ideas gleaned from the text.[27]

d. **Some Principal Strategies for Reading Comprehension**

The following component of some principal strategies for reading comprehension.

1) Identify your purpose of reading a text.
2) Apply spelling rules and conventions for bottom up decoding.
3) Use lexical analysis (prefixes, roots, suffixes) to determine meaning.
4) Guess at meaning (of words, idiom, etc) when you are not certain.
5) Skim the text for the gist and for main ideas.
6) Scan the text for specific information (name, date, key word).

---

[27]Wayne Otto, How to Teach Reading, *Op.Cit.*,p. 152.

7) Use silent reading techniques for rapid processing.
8) Use marginal notes, outlines, chart or semantic maps for understanding and retaining information.
9) Distinguish between literal and implied meanings.
10) Capitalize on discourse markers to process relationship.[28]

e. Reading Evaluation

"Evaluation is focuses on collecting information about different aspect of language program in order to understand how the program works, and how successfully it works, enabling different kinds of decision to be made about the program, such whether the program responds to learner's need, whether further teacher training in required for teacher's working in the program, or whether students are learning sufficiently from it".[29]

Evaluation is very important to measure reading. It will find the comprehension from what students have been read. For knowing the reading comprehension, it must use a test. Because of testing is one of the important tool to measure the students' ability, the reading test will be design to measure the students' ability in reading at grade VIII in MTs N 1 Sipirok. The indicators of evaluation are:

---

[28]H. Douglas Brown, *Language Assesment, Op. Cit*, p. 188.
[29]Jack C. Richard, *Curriculum Development in Language Teaching,* (USA: Cambridge University Press, 2001), p. 286.

Table 3.

The Indicators of Reading Evaluation[30]

No	Indicator of Reading Evaluation
1	The main idea of a text
2	A general overview of the text
3	The information that message from text
4	The meaning of words of text
5	The purpose of communication of the text

There are some technique to make a test; one of theirs multiple choice. Multiple choicesis one of testing method for knowing reading comprehension.Selecting and setting items are however, subjective processes and the decision about which is the correct answer is a matter of subjective judgment on the part of the item writer.[31] Hence, students should be careful to decide the best answer.

Because of the multiple choice is the best chosen, the writer will use multiple choice to know how far the students' ability in reading comprehension. It also can make the students easy to applying their comprehension in reading.

---

[30]KurikulumBahasaInggrisBerkarater SMP, "RPP BahasaInggrisBerkarakter SMP kelas 8", accessed from *http://www.kurikulumktsp.go.id*.at August 17th, 2015 on 11.16 p.m.
[31]Cyril J. Weir, *Communicative Language Testing,* (Uk: Prentice Hall, 1990), p. 43.

4. **Narrative Text**

    a. The Definition of Narrative Text

        According to Sanggam Siahaan says, "Narrative is any written English text in which the writer wants to assume, entertain people, and to deal with actual or vicarious experience in different ways."[32] Similarly, Otong Setiawan says, Narrative is a kind of story to entertain the reader, there is a problem and there are solutions to solve the problem. Narrative text can be fiction and concrete story.[33] In conclusion, narrative is a story to entertain the reader.

        Next, David says, "Narrative is to construct a pattern of events with a problematic and/or unexpected outcome that entertains and instruct the reader and listener."[34] In addition, Kathleen says, "Narrative writing relates a sequence of events, usually in the order in which they happen. Narrative is used in both essays and short stories. Essay are usually concerned with actual events, while short stories deal with fictional events and contain literary features".[35] In conclusion, narrative is a story with problematic, it can be actual events and fictional events.

        ---

        [32]SanggamSiahaan and KisnoShinoda.*Generic Text Structure*, (Yogyakarta: GrahaIlmu, 2008), p. 73.
        [33]OtongSetiawanDjuharie. *Genre*, (Bandung: YramaWidya, 2007), p. 41.
        [34]Using Functional Grammar, David Butt Macquire University, p. 217.
        [35]Kathleen T. McWhorter, *Efficient and Flexible Reading*, (New York: Harper Collin Publ, 1992), p. 262.

From the definition above, the conclusion is the narrative text is a kind of text to entertain readers and there is a problem and solution to solve the problems, by fiction or concrete story.

b. Text Function

The text function of narrative text is to amuse, entertain, and to deal with actual or vicarious experience in different ways; narration deal with problematic events which lead to a crises or turning point of some kind, which in turn finds a resolution.

c. Text Structure and Grammatical Features

Here structural element of narrative text, consist to orientation, complication, resolution, reorientation/coda, and will be explain as follow:

Text Structure	Grammatical Features
Orientation: sets the scene and introduces the participants, time and place.	- Time Conjunction - Past tense
Complication: Sequence of events disrupted creating a problem or crisis for characters.	- Conjunction (series of clauses in temporal sequence, while, and when. - Participants - Sequence of past tense material processes.
Complication: Continued the problem	- Past tense verbal processes - Past tense mental processes - Past tense relational processes
Resolution: Problems/crisis resolved and normal events resume.	- Past tense material processes - Temporal sequence (finally)

Reorientation/Coda: shows how characters have been changed by the events; the sentences that show the end of the story.[36]	- Past tense relational processes - Expression of attitude

B. Review of Related Findings

Actually, there are some researches related to this research. Many researchers have done research about students' reading comprehension and experimental research. The first is Izmi Safitri[37]with the title "*The Comparison of QAR (Question-Answer-Relationship) and DRTA (Directed Reading Thinking Activity) Strategies on the Students' Ability to Comprehend Reading Text at SMA Cerdas Murni Tembung".* The kind of this research is quantitative method by using experimental research. After the research is done, the hypothesis is accepted where she found that teaching reading text by using DRTA strategy is better and more effective to increase students' ability in reading comprehension than QAR strategy. It is seen from the calculation oft_{count}= 2.35 and t $_{table}$ = 2.007. The result students who were taught by using QAR strategy with the score 66.66 and average value of X_2 students who were taught by using DRTA strategy with the score 73.66.

The second, " The Effect of Group Investigation Method on Students' Writing Descriptive Paragraph Ability at Grade VIII SMP N 2 Kotanopan by

---

[36]SanggamSiahaan and KisnoShinoda.*OpCit*, p. 73-74.

[37]IzmiSafitri, The Comparison of QAR (Question-Answer-Relationship) and DRTA (Directed Reading Thinking Activity) Strategies on The Students' Ability to Comprehend Reading Text at SMA CerdasMurniTembung, (*Unpublished Thesis),* Medan: IAIN–SU, 2012, p. 71.

Rahmi Juliani Nasution".[38]The result of hers research said that there was effect of group investigation method on students' writing descriptive paragraph ability at grade VIII SMP N 2 Kotanopan. The result hadbeen obtained mean score of the group investigation method and conventional strategy (78.1> 72.3). The kind of this research is quantitativemethod by using experimental research. After the research is done, the mean score of experimental class is 42.4 for pre-test and 75.2 for post-test.The mean score of control class is 40.6 for pre-test and 67 for post-test.The result of the calculation showed t-observed (2.85) is higher than t-table (2.010) at the level of significance (α: 0.05) with the degree of freedom (df) 48. Therefore, alternative hypothesis (Ha) is accepted. It means that PQRS strategy improves the students' reading comprehension.

The last, the researcher's name is Mustaina Harahap[39] with the title *"A Comparative Study of Students' Reading Comprehension by Using Silent Reading Technique and Loud Reading Technique at Grade XI SMA Negeri 8 Padangsidimpuan"*. The kind of this research is quantitative method by using experimental research. After the research is done, Thehypothesis is accepted where there is a difference of students' reading comprehension by using Silent Reading Technique and Loud Reading Technique on students' reading

---

[38]RahmiJulianiNasution, The Effect of Group Investigation Method on Students' Writing Descriptive Paragraph Ability at Grade VIII SMP N 2 Kotanopan, p.53.

[39]Mustaina Harahap, "A Comparative Study of Students'Reading Comprehension by Using Silent Reading Technique and Loud Reading Technique at Grade XI SMA Negeri 8 Padangsidimpuan", (*Unpublished Thesis*), Padangsidimpuan: STAIN Padangsidimpuan, 2013, p. i.

comprehension at grade XI SMA Negeri 8 Padangsidimpuan. It is based mean score of the Silent Reading Technique is higher than Loud Reading Technique to students' reading comprehension (72.77>60.62).

In conclusion, from the description above, the researcher can conclude that strategy can be improved the students' reading comprehension. Next, the researcher hope that the QAR strategy and PQRS strategy can improve the student's reading comprehension and this research will complete and contribute a previous finding. So that, the researcher interests to make the research about "The Comparative Study between QAR Strategy and PQRS Strategy on Students' Reading Comprehension Text at Grade VIII MTs N 1 Sipirok".

C. Conceptual Framework

Reading is an integral for life. It is important at every level as it supports learning in many ways, and as well knows, learning is the way of life. It is very absolutely necessary to develop this skill. Reading books of a variety of subjects helps to add knowledge. It is absolutely necessary to develop this skill, especially in learning.

QAR(Question-Answer-Relationship) strategy is reading comprehension strategy that helps the students to clarifying reading text and answering question. It helps the students realize the need to consider information in the text and from their own background knowledge. QAR

(Question-Answer-Relationship) strategy presents a three-way relationship between questions, text content, and reader background knowledge.

Beside it, PQRS (Preview, Question, Read, and Summarize) strategy can useful to students who are reading to gain information from a text. It is designed to students in a step-by-step process guides them through process of reading text. Question are asked and answered, prediction are made, and tested through the reading. Additionally, new questions and predictions are formulated as the students' progresses through the text.

Therefore, the writer assumes that QAR (Question-Answer-Relationship) strategy is better than PQRS (Preview, Question, Read, and Summarize) strategy. This is strategy that can solve the students' problem in reading comprehension. This strategy is suitable to increase students' reading comprehension, especially for the students who have been low in reading. QAR (Question-Answer-Relationship) strategy is monitoring the students to combine their mind to the text, beside it QAR (Question-Answer-Relationship) strategy can increase students test score.

D. Hypothesis

According to Hornby, "Hypothesis is the idea that suggested as a possible explanation of facts."[40] From the statement above, so the hypothesis

---

[40]A. S Hornby, *Oxford Learner's Pocket Dictionary* (New York: Oxford University Press, 1995), p.218.

is "there is significant different of using QAR strategy and PQRS strategy on students' reading comprehension at grade VIII MTs Negeri 1 Sipirok".

The researcher will do research based on the framework below:
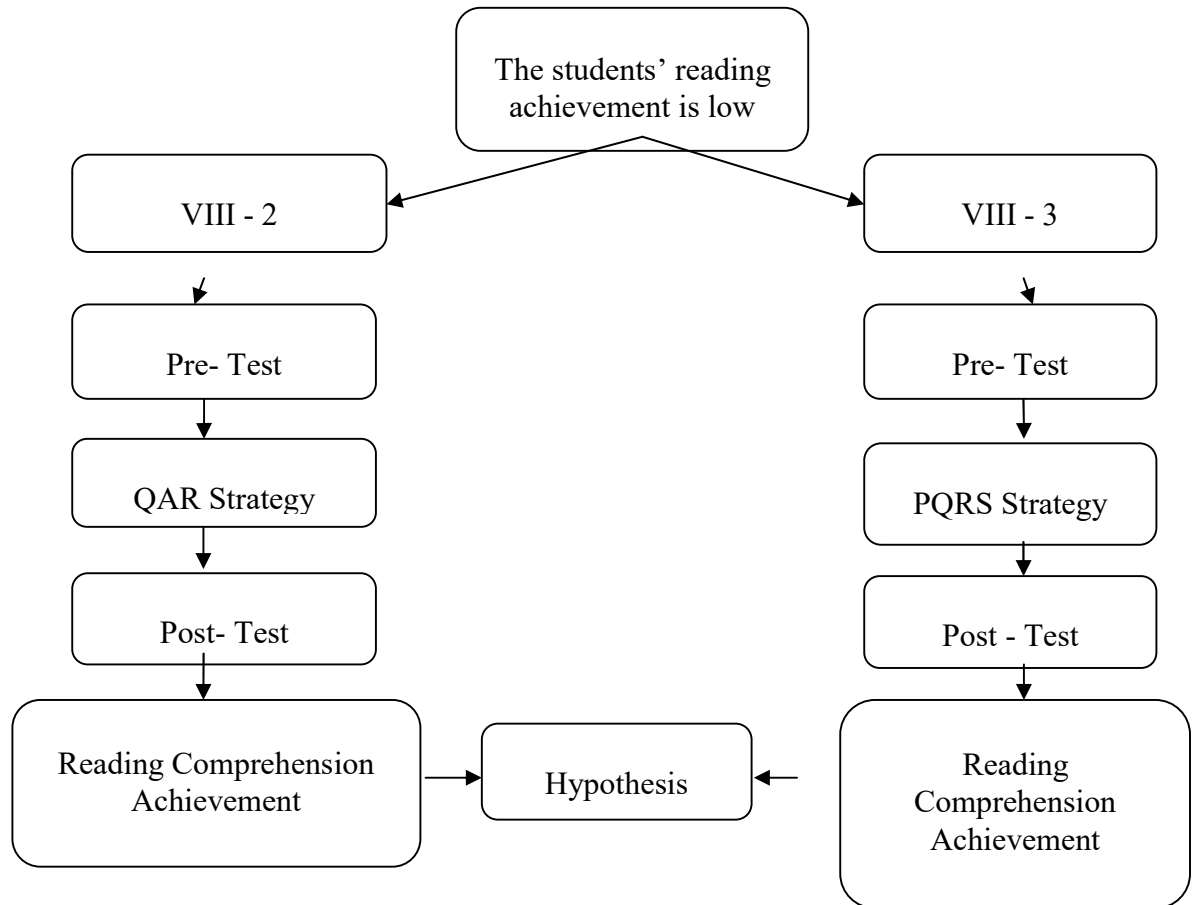
Figure 1. Conceptual Framework

CHAPTER III

RESEARCH METHODOLOGY

A. Location and Schedule of the Research

1. Location of the Research

The location of the research had been done at grade VIII MTs N 1 Sipirok. It is located in Jl. Sialagundi Kec. Sipirok.I choosed this place because no one investigation this problem in this place before.

2. Schedule of the Research

This research has been done conducted in 2015 academic year. This research had been done writing proposal until finish.

B. Research Design

The researcher used experimental method in doing this research. L. R. Gay and Peter Airisan say, "Experimental research is the only type of research that can test hypothesis to establish cause and effect".[1] In addition, Sugiyono said that Experimental research is a research that is used to find the effect of treatment, different with the other research do not use treatment.[2]

From the explanation above, the researcher concluded that the experimental research is a kind of research which has the aim to know causal

---

[1]L. R. Gay and Peter Airasian, *Educational Research for Analysis and Application*, (New York: Prentice Hall, 1992), p. 367.
[2]Sugiyono, *MetodePenelitianPendidikan,* (Bandung: Alfabeta, 2010), p. 107.

effect relationship between one variable or more to other variable. The experimental research controls the selection of participant for the study and divides the select participant into more groups having similar characteristic at the start of experiment. In this research, the researcher used research design in the following table:[3]

Table 4.
Pre-test, Post test Control Group Design

Group	Pre-test	Treatment	Post-test
Control	0	X_1	0
Experiment	0	X_2	0

C. Population and Sample

1. Population

SuharsimiArikunto says, "A population is a set (collection) of all elements processing one or more attributes of interest.[4] Based on the previous explanation, the population of research consists of all of the students at Grade VIII MTs N 1 Sipirok. So that, it can be seen the table follow:

Table 5.
Population of the Research

No	Class	Total
1	VIII-1	32
2	VIII-2	29

---

[3]Hamid Darmadi,*MetodePenelitianPendidikan*, (Bandung: Alfabeta, 2011), p. 203.
[4]SuharsimiArikunto,*ProsedurPenelitianSuatuPendekatanPraktek,* (Jakarta: RinekaCipta, 1993), p. 108.

3	VIII-3	30
	Total of all Students	**101**

2. Sample

Sample is the representatives of the total population that should be researched directly.As stated by Syukur Kholil "Sampel adalah suatu bagian dari populasi yang akan diteliti yang dianggap dapat menggambarkan populasinya sebagian dari jumlah atau karakteristik yang dimiliki oleh populasi".[5] It means that sample is a part of population which will be researched; it assumed that sample can draw population or part of number or characteristic who has been had by population. In another opinion, as Arikunto stated, "Sample is a part of population which will be researched".[6]

In this research, the researcher will test sample with Normality and Homogeneity test as follow.

a. Normality test

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

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

---

[5]SyukurKholil, *MetodologiPenelitianKomunikasi,* (Jakarta: CiptaPustaka Media, 2006), p. 68.
[6]SuharsimArikunto, *Prosedur Penelitian,Op. Cit.,* p. 109.

Where:

x^2 = Chi-Quadrate

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

f_h = Frequency is gotten from the sample as image from frequency is hoped from the population[7]

To calculate the result of Chi-Quadrate, the researcher will use significant level 5 % degree of freedom as big as total of frequency is lessened 3 (dk=5–3).If result $x^2_{count} < x^2_{table}$. .So, it can be concluded that the data is distributed by normal.

b. Homogeneitytest

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

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

Where:

n_1 = Total of the data that bigger variant

n_2 = Total of the data that smaller variant

[7]Mardalis, *MetodePenelitian: SuatuPendekatanProposal*, (Jakarta: BumiAksara, 2003), p. 85.

Criteria:

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

Where:

σ_1^2 = Variantof experimental class

σ_2^2 = Variant of control class[8]

Hypothesisis rejected if F $\leq F_{\frac{1}{2} \ (n_1-1)(n_2-1)}$ while if

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

D. The Instrument of Collecting Data

A research must have an instrument in this research because a good instrument can go guarantee for taking the valid data. In addition, Suharsimi Arikunto says, "Instrument of the research is a tool of facility is used by the researcher in collecting data.[9]Hence, the processing in collecting the data can beeasier and better with the more careful, complete, and systematic. In this research, the instrument of collecting data is using test. The form of the test is multiple choices. The test is divided into two parts. The first test is pre-test; it consists of 40 numbers. The second test is post-test; it is also consists of

---

[8]Sudjana, *MetodeStatistika*, (Jakarta: Tarsito, 2002), p. 250.
[9]*Ibid*, p. 106.

40number. After giving the test, the valid of the test is 25 numbers. The indicator of the test as stated in the following table:

Table 6.

The Indicator of Reading Comprehension

1. **Pre-test**

No	Indicator of reading comprehension	Item	Number of Item	Score	Total Score
1	Get the main idea of a text	5	1,6,11,16,21	4	20
2	A general overview of the text	5	2,7,12,17,22	4	20
3	The information that message from the text	5	3,8,13,18,23	4	20
4	The meaning of words of the text	5	4,9,14,19,24	4	20
5	The purpose of communication of the text	5	5,10,15,20,25	4	20
	Total	**25**	**25**		**100**

2. **Post-test**

No	Indicator of reading comprehension	Item	Number of Item	Score	Total Score
1	Get the main idea of a text	5	1,6,11,16,21	4	20
2	A general overview of the text	5	2,7,12,17,22	4	20
3	The information that message from the text	5	3,8,13,18,23	4	20
4	The meaning of words of the text	5	4,9,14,19,24	4	20

5	The purpose of communication of the text	5	5,10,15,20,25	4	20
	Total	**25**	**25**		**100**

E. The Procedure of Research

In this research, the researcher gave the pre-test and the post-test to both of the class. Sample is divided into two classes. There are experiment class and control class. Experiment class will be given to VIII-2 consists of 29 students and Control class will be given to VIII-3 consist of 30 students. Experiment class will be taught by using QAR strategy and control class will be taught by using PQRS strategies. The procedure of the research will be done as ways below:

1. The researcherprepared the test.

2. For the first meeting day, the researcher did pre-test for one time in one day to experiment class and control class.

3. For the second meeting day, the researcher did treatment for two times; it will be done at experiment class VIII-2 by using QAR strategy.

4. For the third meeting day, the researcher did treatment for two times; it will be done at control class VIII-3 by using PQRS strategy.

5. For the fourth meeting day, the researcher will do post-test for one times in one day; one times to experiment class and control class.

In this research, the researcher need four times enter to those classes. To make easier in understanding, the researcher explain as follow:

1. Pre-test

   In the process pretest, the first the researcher prepared the test. The second, the researcher would distribute the test to experiment class and control class.The third; the researcher gave time and chance to answer the question of reading text. The four, the researcher would control the ways of test for experiment class and control class collect after finish. And the last, the researcher gave scoring by answer the students.

2. Treatment

   The experiment class and the control class gave some material, which wasconsists of reading comprehension aspects that has been done taught by the teacher in different ways. In this case, the researcher gave two times treatment for the experiment class has been done taught by using QAR strategy and two times for the control class has been done taught by PQRS strategy.

3. Post-test

   After gave treatment, the researcher revised the process pretest in posttest from start until final. The First, the researcher start from prepared the test. The second, the researcher distributed the test to experiment class and control class. The third, the researcher gave time and chance to experiment class and control class to answer the question. The Fourth, the

researchers will control the ways of testing students' reading comprehension. After that, collect and give the test scores based on the answer the students. It can be seen from the following table:

Table 7.
The Design of Instrument

Class	Pre-test	Treatment	Post-test
Experimental	✓	QAR Strategy	✓
Control	✓	PQRS Strategy	✓

F. The Technique of the Data Collection

There are two important aspects to find more information about the specific test, those are test validity and test reability as below.

1. Test Validity

Before giving the test to the sample, the researcher will have done testing the instrument to VIII-1. The purpose of testing the instrument is to know what the test have been ready to test. The will use content validity to valid the test.

Content validity establishes how well a test compares to the real world. For example, a school test of ability should reflect what is actually taught in the classroom. When a test has content validity, the items on the test represent the entire range of possible items the test should cover. Individual test questions may be drawn from a large pool of items that cover a broad range of topics.

Suharsimi Arikunto says product moment is the formula to test validity.[10] So, the researcher used product moment as follow:

$$rxy = \frac{N\left(\sum XY\right) - \left(\sum X\right)\left(\sum Y\right)}{\sqrt{\left[N\sum X^2 - \left(\sum X\right)^2\right]\left[N\sum Y^2 - \left(\sum Y\right)^2\right]}}$$

Where:

r_{xy} : correlation

X   : score question

Y   : total of score question

N   : Total of student

2. Test Reliability

The reliability of the characteristic of a good test refers to consistency of the measurement. Suharsimi Arikunto says to obtain the reliability of the test; the researcher used formula K-R 20:[11]

$$r_{11} = \left(\frac{k}{k-1}\right)\left(\frac{V_t - \Sigma pq}{V_t}\right)$$

Where:

R_{11} : test reliability

K   : total of question

V   : variants total

P   : proporsi subject who is right answer

---

[10]SuharsimiArikunto. *ProsedurPenelitianSuatuPendekatanPraktik,* (Jakarta: RinekaCipta, 2010), p. 213.
[11]*Ibid*, p. 231.

$$Q \qquad : \text{proporsi subject who is wrong answer}$$

G. Result of Validity and Reliability Test

1. Test Validity

    Validity is to show how far the test can be testing to get the data. In this research, test validity was done using formulation of product moment. The test is valid if $r_{count} > r_{table}$.

    The calculations of test validity show that 25 numbers is valid from 40 number of test. It can be seen in Appendix.

2. Test Reliability

    The reliability of the characteristic of a good test refers to consistency of the measurement. In this research, test reliability was done using formulation KR-20. The test is reliable if $r_{count} > r_{table}$.

    The calculation of pre-test reliability is 0,892. The calculation of post-test reliability is 0,892. It is concluded that the instrument is reliable. It can be seen in Appendix.

H. Data Analysis

    To analyze the data, the researcher will use " t" test. Anas Sudjiono said "t" test is one of statistic examine which be used in comparative research which done comparing between two variable, that is: is there compare

significant two variable.[12] After, the researcher got the data, it will be enter in frequency table with the formula as follows:

The formula of test "t" is as follows:

$$Tt = \frac{M_1 - M_2}{\sqrt{\left(\dfrac{\Sigma X_1 + \Sigma X_2{}^2}{n_1 + n_2 - 2}\right)\left(\dfrac{1}{n_1} + \dfrac{1}{n_2}\right)}}$$

T   : The value which the statistical significance

M 1   : The average score of the experiment class

M 2   : The average score of the control class

X_1 : Deviation of the experiment class

X 2   : Deviation of the control class

n_1 : Number of experiment

n_2 : Number of control

[12]AnasSudjiono, *PengantarStatistikPendidikan,* (Jakarta: Raja Grafindo Persada,1987), p. 78.

CHAPTER IV

DATA ANALYSIS

This chapter presents research result. In instance, it discussed the way to evaluate a comparative study between students' ability in reading narrative text by using QAR strategy and PQRS strategy at grade VIII MTs N 1 Sipirok.

A. Description of Data

The researcher calculated the data by using pre-test and post-test. Applying quantitative analysis, the researcher used the formulation of t-test. After that, the researcher described the result based on the data in the following description:

1. **Description of Data beforeUsing QAR Strategy and PQRS Strategy**
   a. **The Result of Pre-test Experimental Class**

      In pre-test experimental class, the researcher calculated the result that got by the students in answering the question (test). The scores pre-test experimental class could be seen in the following table.

Table8.
Score of Experimental Class in Pre-test

Total	1790
Highest score	75
Lowest score	45
Mean	70.25
Median	71.25
Modus	67.00
Range	30
Interval	5
Standart deviation	8.50
Varians	75.49

Based on the table above the total score of experiment class in pre-test was 1790, mean was 70.55, standart deviation was 8.50, varians was 75.49, median was 71.25, range was 30,modus was 67.00, interval was 5. The researcher got the highest score was 75 and the lowest score was 45. It can be seen in appendix.

Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution in the :

Table 9.
Frequency Distribution of Students' Score

No.	Interval	Mid Point	Frequency	Percentages
1	45 – 49	47	2	6.89%
2	50 – 54	52	3	10.34%
3	55 – 59	57	4	13.79%
4	60 – 64	62	5	17.24%
5	65 – 69	67	7	24.13%
6	70 – 74	72	5	17.24%
7	75 – 79	77	3	10.34%
$i = 5$			29	100%

In order to get description of the data clearly and completely, the researcher presents it in histogram on the following figure:
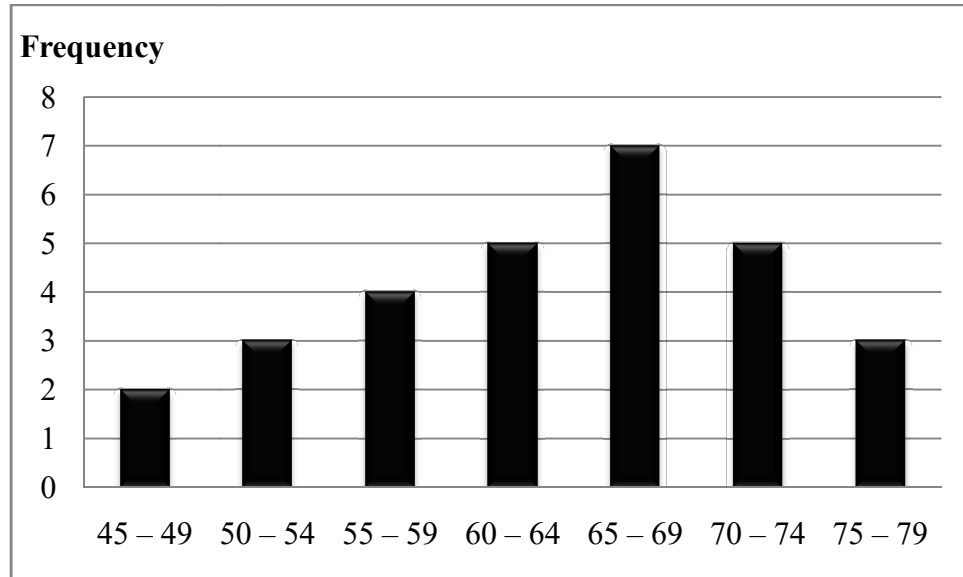
Figure 2.Score Pre-test of Experimental Class

b. **The Result of Pre-test Control Class**

In pre-test control class, the researcher calculated the result that got by the students in answering the question (test). The scores pre-test in control class could be seen in the following table:

Tabel 10.
The Score of Control Class in Pre-test

Total	1825
Highest score	75
Lowest score	45
Mean	71.15
Median	71.50
Modus	67.80
Range	30
Interval	5

Standart deviation	7.95
Varians	65.66

Based on the table above the total score of control class in pre-test was 1825, mean was 71.15, median was 71.50, modus was 67.80, range was 30, interval was 5, standart deviation was 7.95, varians was 65.66. The researcher got the highest score was 75, and the lowest score was 45. It can be seen on appendix.

Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution in the following table:

Table 11.
Frequency Distribution of Students' Score

No.	Interval Class	Mid Point	F	Percentages
1	45 – 49	47	2	6.67%
2	50 – 54	52	3	10.00%
3	55 – 59	57	6	20.00%
4	60 – 64	62	4	13.33%
5	65 – 69	67	8	26.67%
6	70 – 74	72	6	20.00%
7	75 – 79	77	1	3.33%
	$i = 5$		30	100%

In order to get a description of the data clearly and completely, the researcher presents them in histogram on the following figure:
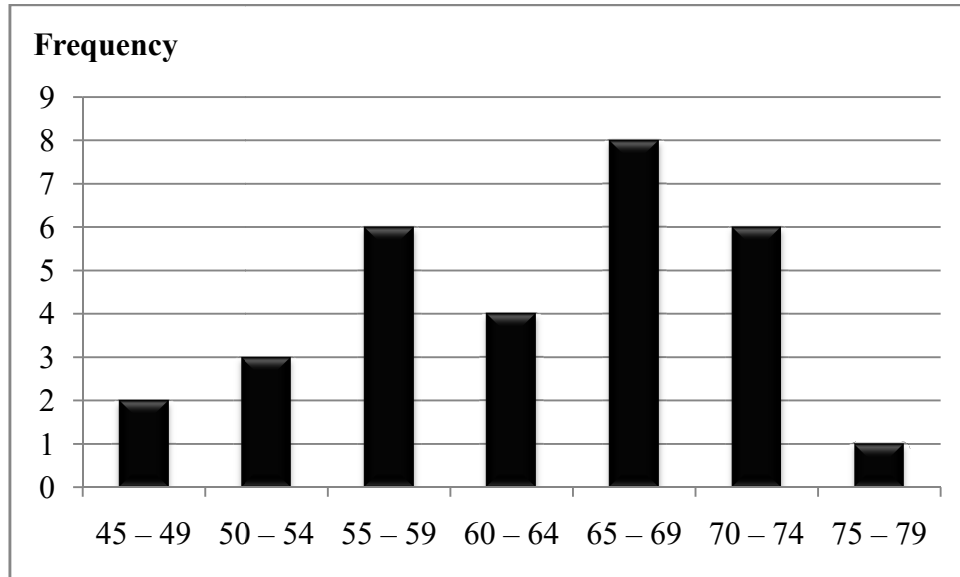
Figure 3.Score Pre-test of Control Class

2. **Description of Data after Using QAR Strategy and PQRS Strategy**
   a. **Description of Data Using QAR Strategy**

   Based on the result of students' ability in reading narrative text by using test, the researcher calculated the score of experimental class in post-test was described on the table below:

Tabel 12.
Score of Experimental Class in Post-test

Total	2365
Highest score	95
Lowest score	65
Mean	75.40
Median	88.10
Modus	85.12
Range	30
Interval	5
Standart deviation	7.75
Varians	62.68

Based on the table above the total score of experiment class in post-test was 2365, mean was 75.40, median was 88.10, modus was 85.12, range was 30, interval was 5, standart deviation was 7.75, varians was 62.68. The researcher got the highest score was 95 and the lowest score was 65.The calculation can be seen in the appendix.

Then, the computed of the frequency distribution of the students' score of experiment class could be applied into table frequency distribution as follow

Table 13.
The Frequency Distribution of Students' Score

No.	Interval Class	Mid Point	F	Percentages
1	65 – 69	67	2	6.89%
2	70 – 74	72	2	6.89%
3	75 – 79	77	3	10.34%
4	80 – 84	82	8	27.58%
5	85 – 89	87	9	31.03%
6	90 – 94	92	2	6.89%
7	95 – 99	97	3	10.34%
	$i = 5$		29	100%

Based on the table above, it can be drawn at histogram as below:
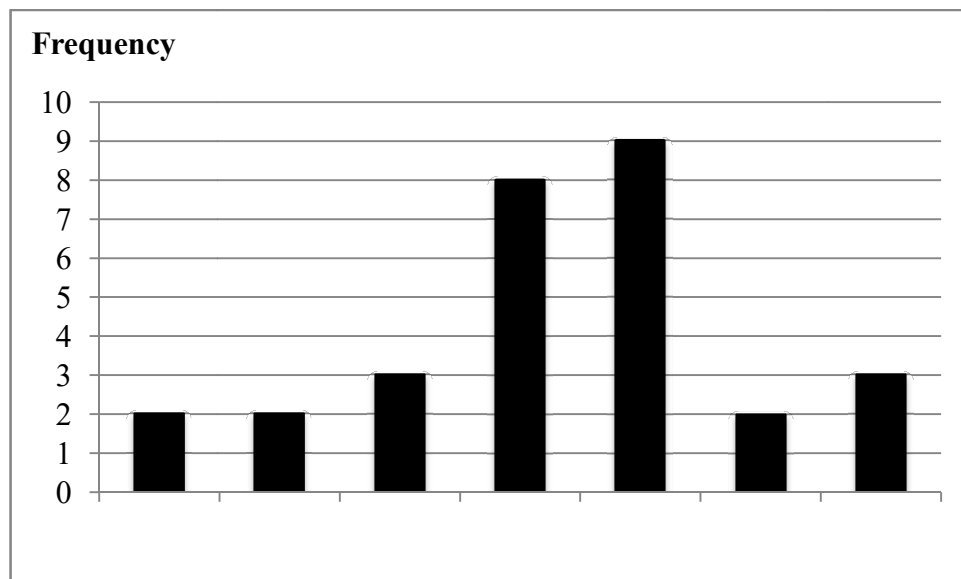
Figure 4.Score Post-test of Experimental Class

b. **Description of Data using PQRS Strategy**

The researcher calculated the score of control class in post-test was described on the table below:

Table14.
The Score of Control Class in Post-test

Total	2025
Highest score	80
Lowest score	50
Mean	64.50
Median	72.00
Modus	68.02
Range	30
Interval	5
Standart deviation	8.30
Varians	71.98

Based on the table above the total score of control class in post-test was 2025,mean was 64.50, standart deviation was 8.30, varians was 71.98, median was 72.00, modus was 68.02, range was 30, interval was 5. The researcher got the highest score was 80 and the lowestscore was50. The calculation can be seen in the appendix.

Then, the computed of the frequency distribution of the students' score of control class could be applied into table frequency distribution as follow:

Table 15.
Frequency Distribution of Students' Score

No.	Interval Class	Mid Point	F	Percentages
1	50 – 54	52	2	6.67%
2	55 – 59	57	2	6.67%
3	60 – 64	62	3	10.00%
4	65 – 69	67	8	26.67%
5	70 – 74	72	6	20.00%
6	75 – 79	77	5	16.67%
7	80 – 84	82	4	13.33%
	$i = 5$		30	100%

Based on the table above, it can be drawn at histogram as follow:
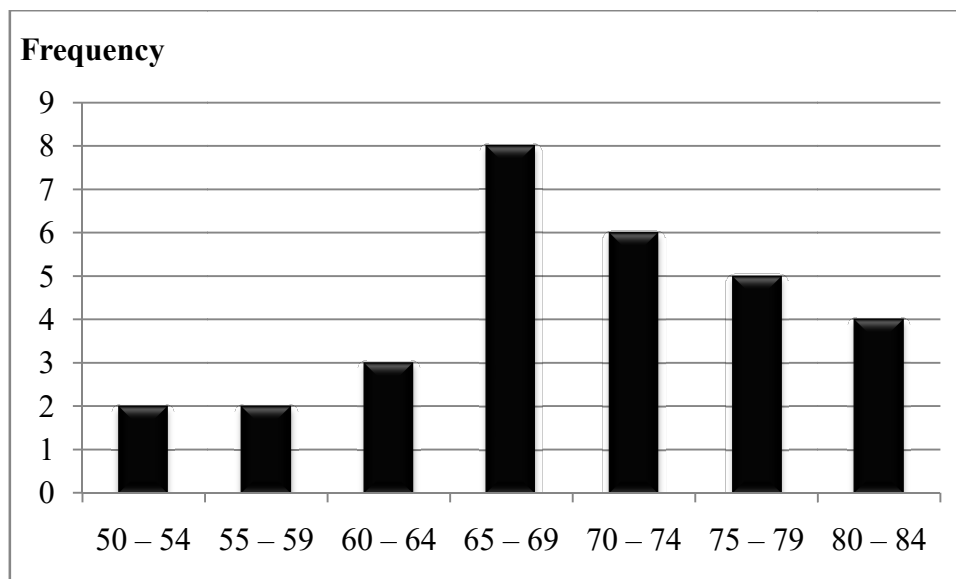
Figure 4.Score Post-test of Control Class

3. Technique of Data Analysis

1) Requirement test

a. Normality and Homogeneity Pre-test

a) Normality of Experimental Class and Control Class in Pre-test

Tabel 16.
Normality and Homogenity in Pre-Test

Class	Normality Test		Homogeneity Test	
	t_{count}	t_{table}	t_{count}	t_{table}
Experiment Class	1.89	5.991	1.14 < 2.045	
Control Class	-9.41	5.991		

Based on the table above researcher calculation, the score of experiment class t_{count}= 1.89 <t_{table}=5.991 with n =29 and control class t_{count}=-9.41<t_{table}=5.991with n = 30, and real level α 0.05. Cause t_{count}<t_{table} in the both class. So,H_a was accepted. It mean that experiment class and control class were distributed normal. It can be seen in appendix.

b) Homogeneity of Experimental Class and Control Class in Pre-test

The coefficient of F $_{count}$ = 1.14 was compared with F table. Where F table was determined at real α =0.05, and the different numerator dk=N-1= 29-1=28 and denominator dk N-1= 30–1= 29 So, by using the list of critical value at F distribution is got F $_{0.05}$= 2.045 and 2.042. It showed that F $_{count}$ (1.14)< F $_{table}$(2.045&2.042).

So, the researcher concluded that the variant from the data of the students'ability in reading narrative text at Grade VIII MTs N 1 Sipirok by experimental and control class was homogen. The calculation can be seen in the appendix.

b. Normality and Homogeneity Post-test

1) Normality of experimental class and control class in Post-test

<div align="center">

Tabel 17.
Normality and Homogenity in Post-test

</div>

Class	Normality Test		Homogeneity Test	
	t_{count}	t_{table}	t_{count}	t_{table}
Experiment Class	4.88	5.991		
Control Class	2.51	5.991	1.14< 2.045	

Based on the table above, the score of experimental class t_{count}=4.88<t_{table} =5.991 with n=29 and control class t_{count}=2.51<t_{table} =5.991with n=30, real level α was 0.05, Cause t_{count}<t_{table} in the both class. So,H_a was accepted, it mean that experiment class and control class were distributed normal. It can be seen in appendix.

2) Homogenity of Experimental Class and Control Class in Post-test

The coefficient of F $_{count}$ =1.14 was compared with F table. Where F table was determined at real α =0.05, and the different numerator dk=N-1= 29-1=28 and denominator dk = N-1= 30–1=29. So, by using the list of critical value at F distribution was got F $_{0.05}$=2.045 and 2.042. It show that F$_{count}$ (1.14) < F $_{table}$ (2.045& 2042). So, the

researcher concluded that the variant from the data of the students' ability in reading narrative text at grade VIII MTs N 1 Sipirok by experimental and control class was homogeny. The calculation can be seen in the appendix.

2) Hypothesis Test

The data would be analyzed to prove hypothesis by using formula of t-test. If $t_{count} > t_{table}$, H_0 was rejected and H_a was accepted.Hypothesis alternative (H_a) of research was "There was the significant different between QAR (Question-Answer-Relationship) strategy and PQRS (Preview, Question, Read, and Summarize) strategyon students' reading comprehension text at grade VIII MTs N 1 Sipirok." The calculation can be seen in the appendix.

Table 18.
Result of T-test from the Both Averages

Pre-test		Post-test	
t_{count}	t_{table}	t_{count}	t_{table}
1.63	1.997	20.18	1.997

H_a: $\mu_1 > \mu_2$

Where,

H_a: $\mu_1 > \mu_2$ "QAR (Question-Answer-Relationship) strategy better thanPQRS (Preview, Question, Read, and Summarize) strategyon students' Ability in reading narrative text."

Based on the calculation, the researcher found that t_{count} 20.18. while t_{table} 1.997. With opportunity 5% and $d_t = (n_1 + n_2 - 2) = (29 + 30 - 2) = 57$. If $t_{count} > t_{table}$, H_0 was rejected and H_a was accepted(20.18 > 1.997). It mean that there wasthe significant different between QAR (Question-Answer-Relationship) strategy and PQRS (Preview, Question, Read, and Summarize) strategy on students' reading comprehension text at MTs N 1 Sipirok". In this case, the mean score of experiment class by using QAR strategywas 75.40, and mean score of control class by using PQRS strategywas 64.50.The calculation can be seen on the appendix.

B. **Discussion**

Based on the theory and related findings, the researcher discuss what that was found. QAR is a useful tool in encouraging students to actively read texts and comprehend the categories of questions based on the source of information essential for the answer.[1] PQRS strategy is a well know plan that any students, regardless of age, may use when attempting to make meaning from the text.[2]The first,The Comparative of QAR (Question-Anwer-Relationship) and DRTA (Directed Reading Thinking Activity) Strategies on the Students' bility to Comprehend Reading Text at SMA Cerdas Murni Tembung by Izmi Safitri $F_{count} < F_{table}$ (2.35<2.007) in pretest. Then, The Effect

---

[1]A. L. Sorrell, *Triadic Approach to Reading Comprehension Strategy Instruction*, (Austin: The 32nd Annual Conference Learning Disabilities Association of Texas, 1996), p. 4.

[2]John Watson, *Principles of Language Learning and Teaching*, (Pearson Longman: San Francisco State University, 1993), p. 88.

of Group Investigation Method on Students' Writing Descriptive Paragraph Ability at Grade VIII SMP N 2 Kotanopan by Rahmi Juliani Nasution $F_{count} < F_{table}$ (1.41<2.12) in pre test. Next, A Comparative Study of Students' Reading Comprehension by Using Silent Reading Technique and Loud Reading Technique at Grad3 XI SMA Negri 8 Padangsidimpuan by Mustaina Harahap $F_{count} < F_{table}$ (0.0446<0.161) in pre test. The last, The Comparative Study Between QAR Strategy and PQRS Strategy on Students' Reading Comprehension at Grade VIII of MTs N 1Sipirok by Ahmadi $F_{count} < F_{table}$(-9.41<5.991) in pre test.

The second, The Comparative of QAR (Question-Anwer-Relationship) and DRTA (Directed Reading Thinking Activity) Strategies on the Students' ability to Comprehend Reading Text at SMA Cerdas Murni Tembung by Izmi Safitri $\bar{x}_1 = 66,66$ $\bar{x}_2 = 73.66$ in post test. Then, The Effect of Group Investigation Method on Students' Writing Descriptive Paragraph Ability at Grade VIII SMP N 2 Kotanopan by Rahmi Juliani Nasution $\bar{x}_1 = 78.1 \bar{x}_2 = 72.32$ in post test. Next, A Comparative Study of Students' Reading Comprehension by Using Silent Reading Technique and Loud Reading Technique at Grade XI SMA Negeri 8 Padangsidimpuan by Mustaina Harahap $\bar{x}_1 = 72.77 \bar{x}_2 = 60.62$ in posttest. The last, The Comparative Study Between QAR Strategy and PQRS Strategy on Students' Reading

Comprehension at Grade VIII of MTs N 1 Sipirok by Ahmadi $\bar{x}_1 = 75.40 \bar{x}_2 = 64.50$ in post test.

The result of interval pre-test and post-test in experimental class. First, the script of Izmi safitri was 66.66 and 73.66, so the interval was 7. Second, the script of Rahmi was 69.5 and 78.1, so the interval 8.6. Third the script of Mustaina was 67.5 and 70, so the interval was 2.5. The last, the researcher's script was 64.50 and 75.40, so interval was 10.9. From those intervals, the interval of this research was higher than the previous researches.

Then t_{count} and t_{table} of QAR and DRTA the script of Izmi in pre-test was (2.35<2.007) and post-test (2.85<2.010), then t_{count} and t_{table} of Group Investigation the script of Rahmi in pre-test was (1.41<2.12) and post-test (1.73>2.12),Then t_{count} and t_{table} of Silent Reading Technique and Loud Reading Technique the script of Mustaina in pre-test was (1.009<1.706) and post-test (3.55<3.841), Then t_{count} and t_{table} of QAR and PQRS the researcher's script in pre-test was (1.89<5.991) and post-test (20.18>1.997).

Therefore, the researcher found the Students' Reading Comprehension before using QAR Strategy is lower than after using PQRS Strategy. It can be seen from last of mean score in experimental class was 75.40 and control class 64.50. It means the result and hyphotesis testing show that QAR strategy had the method, and hyphothesis alternative (H_a) was accepted and hyphothesis zero (H_0) was rejected. It was indicated that the score of experimental class

was bigger than control class (75.49>65.66), and also indicated $t_o > t_t$ (20.18 > 1.997).

Then, base on the result had been obtained mean score of QAR strategy is higher than PQRS strategy to reading comprehension (75.40>64.50).So, the implication of the research QAR strategy is better than PQRS strategy in students' reading comprehension.

C. Threats of the Research

The researcher found the threat of this research as follow:

1. The students needed more time for answering the test.

2. The students were noisy when answering the test.

3. The limited of the instrument of research.

4. The limited of English books (especially reading book) in the writer's campus.

5. The researcher was lack of experience in processing data or lack of knowledge about it.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the result of the research and calculation of the data, the researcher got the conclusion that there was the significant different between QAR (Question-Answer-Relationship) strategy and PQRS (Preview, Question, Read, and Summarize) strategy on students' reading comprehension text at grade VIII MTs N 1 Sipirok. If $t_{count} > t_{table}$, H_0 was rejected. Mean score of experimental class in pre-test was 75.49 and mean score of control class was 65.66. Hence, experimental class was higher than control class (75.49>65.66). In addition, mean score of experimental class in post-test was 75.40 and mean score of control class was and 64.50. Hence, experimental class was higher than control class (75.40>64.50). It was proven in t_{count} was higher than t_{table} (20.18>1.997). The researcher concluded that QAR (Question-Answer-Relationship) strategy more effective than PQRS (Preview, Question, Read, and Summarize) strategy on students' reading ability in narrative text.

B. Suggestion

After finishing this research, the researcher got much information in English teaching and learning process. Therefore, the researcher has suggestion to:

1. For teacher, as an English teacher were hoped to use appropriate strategy to explain or to teach English subject to the students. Then, from the result of the research, QAR (Question-Answer-Relationship) strategy better than PQRS (Preview, Question, Read, and Summarize) strategy. Hence, the researcher suggests QAR (Question-Answer-Relationship) strategy can be applied on the English teaching classroom especially for the teachers who want to increase students' reading ability.

2. The Principal of MTs N 1 Sipirok to motivate the teacher, especially English teachers to teach as well as possible by maximizing using of QAR (Question-Answer-Relationship) strategy in teaching English.

3. Other researcher, the researcher hopes that the others researchers who want to conduct a research related to this research to find the others influence of these strategies deeply.

REFERENCES

Anas Sudjiono, *Pengantar Statistik Pendidikan,* Jakarta: Raja Grafindo Persada, 2004.

Ann Smith &Ebrahim James, *FCS Construction Carpentry and Roof work*, New York: Person Education Africa, 2008.

Anna UhlChamot, et. al., *The Learning Strategies Handbook*, New York: Longman, 1999.

A.S Hornby, *Oxford Learner's Pocked Dictionary*, New York: Oxford University Press, 2000.

AJ. Harris, *How to Increase Reading Ability*, New York: David Mckay Company, 1969.

Barbara A. Wilson, *Memory Rehabilitation: Integrating Theory and Practice*, New York: The Guilford Press, 2009.

Brown,H. Brown, *Language Assessment Principles & Classroom Practices*, San Francisco State University, 2004.

Brown, H. Douglas, *Teaching by Principles, An Interactive Approach to Language Pedagogy*, New Jersey: Prentice Hall Regents, 1994.

Creswell, John W, *Research Design,*USA: Sage Publication, 2002.

Cyril J. Weir, *Communicative Language Testing*, UK: Prentice Hall International, 1990.

Donalt C. Orlict, *StrategiesAcuided* to *BetterInstruction*, Bandung: Aksara, 2008.

Douglas Fisher & Nancy Frey,*Guided Instruction, How to Develop Confidents and Successful Learners,* USA: ASCD, 2010.

ESA 6 & 7,*On Target: Strategies to Improve Students Test Score, Grade 3-12*, Rapid City: Black Hills Special Services Cooperative (BHSSC), 2005.

Gay, L. R & Peter Airasian.*Educational Research: Competence for Analysis & Application* U.S.A: Prentice-Hall, 2000.

Hamid Darmadi, *MetodePenelitianPendidikan*, Bandung: Alfabeta, 2011.

IbnuHajar, *Dasar-DasarMetodologyPenelitianKwantitatifDalamPendidikan*, Jakarta: GrafindoPersada, 1999.

IzmiSafitri, The Comparison of QAR (Question Answer Relationship) and DRTA (Directed Reading Thinking Activity) Strategies on The Students' Ability to Comprehend Reading Text at SMA CerdasMurniTembung, Medan: IAIN –SU, 2012.

J. Michael O,Malley and Lorraine Valdez Pierce, *Authentic Assessment for English Language Learners, Practical Approaches for Teachers*, United States of America: Addison-Wesley Publishing, 1996.

Janette K. Klingner, et. al, *Teaching Reading Comprehension to Students with Learning Difficulties*, New York: The Guildford Press, 2007.

Kothari, C.R, *Research Methodology: Methods & Techniques, (Second Revised Edition)*, New Delhi: New Age International (P) Ltd., 2004.

Lester and Alice Crow, *How to Study: to Learn Better, Pass Examination, Get Better Grades,* USA: Collier Macmillan Publisher, 1976.

MuhibbinSyah,*PsikologyPendidikanPendekatanBaru*,   Bandung: RemajaRosadaKarya, 2000.

Nunan David, *Practical English Language Teaching*, New York: McGraw Hill, 2003.

Nuttal, Christine, *Teaching Reading Skill in a Foreign Language*, London: the Niemen Education Ltd, 1982.

Otto, Lyman R. and Michael T. Longnecker, *an Introduction to Statistical Methods and Data Analysis*, Belmont: Brooks/Cole Cengage Learning, 2010.

Richard A. Renandya, *LanguageTeachingMethodology*, Cambridge University, 2006.

SiholMarito, the Effect of Using SQ4R Technique on Reading Comprehension*, Unpublished Thesis*, Medan: UNIMED, 2009.

Suariman, The Implementation of Directed Reading Thinking Activity (DRTA) Startegy in Improving Students' Ability to Comprehend Reading Text at MTS Al-Ittihadiyah Mayami Medan, Medan: IAIN-SU, 2010.

SuharsimiArikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*,Jakarta:Rineka Cipta, 1997.

Sylvia Linan, Thompson and Sharon Vaughn.*Research-Based Method of Reading Instruction for English Language Learners Grade K-4*, Virginia USA: Association for Supervision and Curriculum Development (ASCD), 2007.

Tampubolon, DP, *KemampuanMembaca, TeknikMembacaEfektiifdanEfisien*, Bandung: Angkasa,1987.

Wainwright, Gordon, *Speed Reading Better Recalling*, Jakarta: Gramedia, 2007.

WatsonJohn, *Principles of Language Learning and Teaching*, Pearson Longman: San Francisco State University, 1993.

Wayne Otto, *How to Teach Reading*, USA: Addison-Wesley Publishing Company, 1979.

WestwoodPeter, *Commonsense Method for Children with Special Educational Needs-5ᵗʰEdition,* Rutledge Taylor & Francis Group: New York, 2007.

WestwoodPeter, *Reading and Difficulties: Approaches to Teaching and Assessment,* Camber well: national library of Australia, 2001.

Wilma Vialle&IrincVenenikina, *Handbook on child Development*, Australia: Social Science Press, 2002.

WongLinda, *Essential Study Skills Sixth Edition,* Boston & New York: Houghton Mifflin Company, 2009.

CURRICULUM VITAE

A. Identity

Name   : AHMADI PENGHARAPAN PANE

Nim   : 11 340 0046

Place and Birthday   : Pangurabaan, 16th Mei 1993

Sex   : Male

Religion   : Moslem

Address   : Silangge, Kec. Sipirok.

B. Parent

1. Father's name   : H. MUHARRAM PANE

2. Mother's name   : HJ. AMELIA RITONGA

C. Educational Background

1. Elementary School   : SD N 102060 Pangurabaan   (2005)

2. Junior High School   : SMP N 1 SIPIROK   (2008)

3. Senior High School   : SMA N 1 SIPIROK   (2011)

4. Institute   : IAIN Padangsidimpuan   (2016)

<div align="center">

Lesson Plan

Experiment Class

</div>

Nama Sekolah   : **MtsN 1 Sipirok**

Mata Pelajaran   : Bahasa Inggris

Kelas/Semester   : VII-2/1

Kind of Text   : Narrative

Tema   : *Visiting Bali*

Aspek/Skill   : Reading

Alokasi Waktu   : 8 x 40 Menit (4 Pertemuan)

A. Standard Kompetensi

1. Memahami makna dalam teks fungsional pendek dan monolog berbentuk *recount* dan *narrative* dalam konteks kehidupan sehari-hari.

B. Kompetensi Dasar

1.1 Merespon makna dalam teks monolog yang menggunakan ragam bahasa lisan secara akurat, lancar, dan berterima dalam konteks kehidupan sehari-hari dalam teks berbentuk *recount* dan *narrative*.

C. Tujuan pembelajaran

Pada akhir pembelajaran siswa dapat:

1. Mengidentifikasi makna gagasan dalam teks berbentuk *narrative*.

D. Karakter siswa yang diharapkan:

1. Mempunyai semangat kepemimpinan (*having spirit of leadership*)
2. Penuh tanggung jawab (*responsible*)
3. Komunikatif (*communicative*)
4. Bekerjasama (*cooperative*)

E. Materi Pembelajaran

1. Reading comprehension
   a. Teks tulisan berbentuk *narrative*.

F. Metode Pembelajaran: QAR (Question-Answer-Realatinship) Strategy

G. Langkah-langkah Kegiatan

Pertemuan 1
1. Kegiatan Awal
   a. Mengucapkan salam kepada siswa ketika memasuki ruang kelas.
   b. Mengecek kehadiran siswa.
   c. Mengawali pelajaran dengan berdoa.
   d. Apersepsi dan motivasi.
      1) Apersepsi: menanyakan kabar siswa.
      2) Motivasi: menjelaskan pentingnya test yang harus dikerjakan oleh siswa.

2. Kegiatan Inti
   1) Memberikan lembaran soal kepada siswa.
   2) Menjelaskan bagaimana cara menyelesaikan lembaran soal yang diberikan.
   3) Meminta siswa untuk menjawab dan menyelesaikan test.

3. Kegiatan akhir
   Dalam kegiatan akhir, guru:
   a. Mengumpulkan lembaran soal yang telah dikerjakan oleh siswa.
   b. Menyampaikan rencana pembelajaran pada pertemuan berikutnya.

Pertemuan 2 dan 3
1. Kegiatan Awal
   a. Mengucapkan salam kepada siswa ketika memasuki ruang kelas.
   b. Mengecek kehadiran siswa.
   c. Mengawali pelajaran dengan berdoa.
   d. Apersepsi dan motivasi.
      1) Apersepsi: menanyakan kabar siswa.
      2) Motivasi: menjelaskan pentingnya materi yang akan dipelajari serta kompetensi yang harus dikuasai oleh siswa.

2. Kegiatan Inti

No	Teacher Activity	Students Activity
1	Explaining the two broad categories of questions (and the four subcategories) to students as an introduction to the QAR strategy.	Knowing the two broad categories of questions (In-the-book; Right-there, Think and Search), (In-my-head; on My Own, Author and Me).
2	Provide a reading selection and a set of questions about its content. Model the placement of the questions in the framework of the QAR model.	- Using *narrative* text as reading selection; - Understanding the questions used for "right there" questions are *who is..?, where is...?, what is..?, when is..?, how many..?, what kind of...?*etc.
3	- Next, divide the class into	- Each students in each groups.

		small groups and provide each with a reading selection and a set of questions. - Have the groups place the questions in the QAR framework.	Every groups have *narrative* text. - Using the questions used for "right there" questions are *who is..?, where is...?, what is..?, when is..?, how many..?, what kind of...?*etc. with the text are given.
4		Finally, provide the groups with a new reading selection and ask them to develop questions from its content.	Have the students evaluate their own questions in light of the QAR framework.

3. Kegiatan akhir
   Dalam kegiatan akhir, guru:
   a. Bersama-sama dengan peserta didik dan/atau sendiri membuat rangkuman/simpulan pelajaran;
   b. Merencanakan kegiatan tindak lanjut dalam bentuk pembelajaran remedi, layanan konseling dan/atau memberikan tugas individual maupun kelompok sesuai dengan hasil belajar peserta didik;
   c. Menyampaikan rencana pembelajaran pada pertemuan berikutnya.

Pertemuan 4
1. Kegiatan Awal
   a. Mengucapkan salam kepada siswa ketika memasuki ruang kelas.
   b. Mengecek kehadiran siswa.
   c. Mengawali pelajaran dengan berdoa.
   d. Apersepsi dan motivasi.
      1) Apersepsi: menanyakan kabar siswa.
      2) Motivasi: menjelaskan pentingnya test yang harus dikerjakan oleh siswa.

2. Kegiatan Inti
   1) Memberikan lembaran soal kepada siswa.
   2) Menjelaskan bagaimana cara menyelesaikan lembaran soal yang diberikan.
   3) Meminta siswa untuk menjawab dan menyelesaikan test.

3. Kegiatan akhir
   Dalam kegiatan akhir, guru:
   a. Mengumpulkan lembaran soal yang telah dikerjakan oleh siswa.
   b. Menyampaikan rencana pembelajaran pada pertemuan berikutnya.

H. Sumber belajar

1. Relevant textbooks: Soegeng HS, 2012. *Effective English for Grade VII of Secondary*. Solo: PT. Tiga Serangkai Pustaka Mandiri.

2. English Dictionary

3. Internet

I. Evaluasi

Indikator	Teknik	Bentuk Test	Instrument
Mengidentifikasi informasi dari teks *narrative*	Literal Test	Multiple choice	Choose the correct answer by crossing a, b, c, or d.

Sipirok,   August 2015

Validator,   Teacher,

Sojuangon Rambe, S.S., M.Pd   **Ahmadi Pengharapan Pane**
NIP. 19790815 200604 1 003   **NIM. 11 340 0046**

Lesson Plan

Control Class

Nama Sekolah : **MtsN 1 Sipirok**

Mata Pelajaran : Bahasa Inggris

Kelas/Semester : VII-3/1

Kind of text : *Narrative*

Tema : *Visiting Bali*

Aspek/Skill : Reading

Alokasi Waktu : 8 x 40 Menit (4 Pertemuan)

A. Standard Kompetensi

2. Memahami makna dalam teks fungsional pendek dan monolog berbentuk *recount* dan *narrative* dalam konteks kehidupan sehari-hari.

B. Kompetensi Dasar

2.1 Merespon makna dalam teks monolog yang menggunakan ragam bahasa lisan secara akurat, lancar, dan berterima dalam konteks kehidupan sehari-hari dalam teks berbentuk *recount* dan *narrative*.

C. Tujuan pembelajaran

Pada akhir pembelajaran siswa dapat:

2. Mengidentifikasi makna gagasan dalam teks berbentuk *narrative*.

D. Karakter siswa yang diharapkan:

1. Mempunyai semangat kepemimpinan (*having spirit of leadership*)

2. Penuh tanggung jawab (*responsible*)

3. Rajin (*dilligence*)

4. Dapat dipercaya (*trustworthiness*)

E. Materi Pembelajaran

2. Reading comprehension

b. Teks tulisan berbentuk *narrative*.

F. Metode Pembelajaran: PQRS (Preview, Question, Read, and Summarize) Strategy

G. Langkah-langkah Kegiatan

Pertemuan 1

1. Kegiatan Awal
   a. Mengucapkan salam kepada siswa ketika memasuki ruang kelas.
   b. Mengecek kehadiran siswa.
   c. Mengawali pelajaran dengan berdoa.
   d. Apersepsi dan motivasi.
      1) Apersepsi: menanyakan kabar siswa.
      2) Motivasi: menjelaskan pentingnya test yang harus dikerjakan oleh siswa.

2. Kegiatan Inti
   1) Memberikan lembaran soal kepada siswa.
   2) Menjelaskan bagaimana cara menyelesaikan lembaran soal yang diberikan.
   3) Meminta siswa untuk menjawab dan menyelesaikan test.

3. Kegiatan akhir
   Dalam kegiatan akhir, guru:
   a. Mengumpulkan lembaran soal yang telah dikerjakan oleh siswa.
   b. Menyampaikan rencana pembelajaran pada pertemuan berikutnya.

Pertemuan 2 dan 3

1. Kegiatan Awal
   a. Mengucapkan salam kepada siswa ketika memasuki ruang kelas.
   b. Mengecek kehadiran siswa.
   c. Mengawali pelajaran dengan berdoa.
   d. Apersepsi dan motivasi.
      1) Apersepsi: menanyakan kabar siswa.
      2) Motivasi: menjelaskan pentingnya materi yang akan dipelajari serta kompetensi yang harus dikuasai oleh siswa.

2. Kegiatan Inti

Step	Teacher Activity	Students Activity
Step 1 *Preview*	- Giving student a text - Giving students a direction to read fast. - Askin the students to read the important part of the text.	- Read the title, section headings, and visual aids. - Read the first and the last paragraph to get general idea of the purpose and the major concept.
Step 2 *Question*	Question from the text using question word of *what, who, what, when, where, why, and how*	- Predict a question to be answer in the text. - Convert heading into questions or draw from past

		experience/background knowledge to form the question.
Step 3 *Read*	- Asking students to answer their question.	- Read a text in its entirely. - Carrefully read the complete text, recording notes in the margin or underlining important information that answer the question.
Step 4 *Summarize*	- Asking students to summarize main points from the hole text that have been learnt. - Asking students to check their work.	- Summarize main points and supporting details of the complete text. - Make sure the question have been answered.

3. Kegiatan akhir
   Dalam kegiatan akhir, guru:
   a. Bersama-sama dengan peserta didik dan/atau sendiri membuat rangkuman/simpulan pelajaran;
   b. Merencanakan kegiatan tindak lanjut dalam bentuk pembelajaran remedi, layanan konseling dan/atau memberikan tugas individual maupun kelompok sesuai dengan hasil belajar peserta didik;
   c. Menyampaikan rencana pembelajaran pada pertemuan berikutnya.

Pertemuan 4
1. Kegiatan Awal
   a. Mengucapkan salam kepada siswa ketika memasuki ruang kelas.
   b. Mengecek kehadiran siswa.
   c. Mengawali pelajaran dengan berdoa.
   d. Apersepsi dan motivasi.
      1) Apersepsi: menanyakan kabar siswa.
      2) Motivasi: menjelaskan pentingnya test yang harus dikerjakan oleh siswa.

2. Kegiatan Inti
   1) Memberikan lembaran soal kepada siswa.
   2) Menjelaskan bagaimana cara menyelesaikan lembaran soal yang diberikan.
   3) Meminta siswa untuk menjawab dan menyelesaikan test.

3. Kegiatan akhir
   Dalam kegiatan akhir, guru:
   a. Mengumpulkan lembaran soal yang telah dikerjakan oleh siswa.
   b. Menyampaikan rencana pembelajaran pada pertemuan berikutnya.

H. Sumber belajar

1. Relevant textbooks: Soegeng HS, 2012. *Effective English for Grade VII of Secondary*. Solo: PT. Tiga Serangkai Pustaka Mandiri.
2. English Dictionary
3. Internet

I. Evaluasi

Indikator	Teknik	Bentuk Test	Instrument
Mengidentifikasi informasi dari teks *narrative*	Literal Test	Multiple choice	Choose the correct answer by crossing a, b, c, or d.

Sipirok,   August 2015

Validator,   Teacher,

Sojuangon Rambe, S.S., M.Pd   **Ahmadi Pengharapan Pane**
NIP. 19790815 200604 1 003   **NIM. 11 340 0046**

Appendix 3. Handout for Meeting 2 and 3 in Lesson Plan 1 and Lesson Plan 2

Visiting Bali

There are so many fantastic places to see in my town that my friend decided to join the tours to see as much as possible. My friend stayed in my town on arrival. She spent the first three days swimming on Parsariran River. She visited to my house and asked me some fantastic place and selected two tours. The first one was to Saungpalapa, the second was to Siais lake. On the day of the tour, she was ready.

My friend and his group drove on through mountains. Singaraja is a city of about 90 thousands people. It is a busy but quiet town. Th.e street are lined with trees and there are many old Dutch houses. Then they returned very late in the evening to Kuta.

The second tour to Ubud was a very different tour. It was not to see the scenery but to see the art and the craft of the island. The first stop was at Batubulan, a center of stone sculpture. There my friend watched young boys were carving away at big blocks of stone. The next stop was Celuk, a cente for silversmiths and goldensmiths. After that he stopped a little while for lunch at Sukawati and on to mass. Mass is a tourist center My friend ten-day-stay ended very quickly beside his two tour, all his day was spent on the beach. He went sailing or surfboarding every day. He was quiet satisfied.

Appendix 4. **Pre-test for Experiment Class and Control Class**

Instruction: Cross the right answer to the question below.

A. Text 1 is appropriate question to numbers 1-5

A long time ago, in a small village near the beach in West Sumatra, a woman and her son lived. They were MalinKundang and her mother. Her mother was a single parent because MalinKundang's father had passed away when he was a baby. MalinKundang had to live hard with his mother

MalinKundang was a healthy, dilligent, and strong boy. He usually went to sea to catch fish. After getting fish he would bring it to his mother, or sold the caught fish in the town. One day, when MalinKundang was sailing, he saw a merchant's ship which was being raided by a small band of pirates. He helped the merchant. With his brave and power, MalinKundang defeated the pirates. The merchant was so happy and thanked to him. In return the merchant asked MalinKundang to sail with him. To get a better life, MalinKundang agreed. He left his mother alone. Many years later, MalinKundang became wealthy. He had a huge ship and was helped by many ship crews loading trading goods. Perfectly he had a beautiful wife too. When he was sailing his trading journey, his ship landed on a beach near a small village. The villagers recognized him. The news ran fast in the town; "MalinKundang has become rich and now he is here". An old woman ran to the beach to meet the new merchant. She was MalinKundang's mother. She wanted to hug him, released her sadness of being lonely after so long time. Unfortunately, when the mother came, MalinKundang who was in front of his well-dressed wife and his ship crews daniedmeeting that old lonely women. For three times her mother begged MalinKundang and for three times he yelled at her. At last MalinKundang said to her" enough, old women! I have never had mother like you, a dirty and ugly women!" afterthat he ordered his crewsto set sail. He would leave the old mother again in that time she was full of both sadness and angriness. Finallyenraged, she cursed MalinKundang that would turn into a stone if he did not apologize. MlainKundang just laught and really in the quiet sea, suddenly a thunderstorm came. His huge ship was wrecked and it was late for MalinKundang to apologize. He was thrown by the wave out of his ship. He fell on an island. It was really too late for him to avoid his curse. Suddenly he turned into a stone.

1. What is the main idea of paragraph 2 ?
   a. Malin kundang was a suck, stupid and bad boy
   b. Malin kundang was a healthy diligent and strong boy
   c. Malin kundang and her father
   d. Malin kundang and his mother
2. What is the text talk about ?
   a. Malin kundang and wife

b. Mlin kundang and parents

c. Malin kundang and her parents

d. The legend of malin kundang

3. What is the moral value of the story above ?

a. Don't forget to your mother when you successful

b. Don't rebellious to your parents although they are poor

c. Don't make your mother alone

d. Don't make your mother trouble

4. Malin kundang was a <u>healthy,</u> diligent……….{ paragraph 2, line 1 }

The antonym of the underlined word….

a. Sick   c. weak

b. Smart   d. stupid

5. What is the purpose of the text above?

a. To entertain the readers or listeners about the story

b. To describe the reader about the story

c. To inform what happened in the past

d. To give a description about bad man

B. Text 2 is appropriate question to numbers 6-10

Once upon a time there lived a little, named Snow White. She lived with her aunt and uncle because her parents were died.

One day she heard her aunt and uncle talking about leaving Snow White in the castle because they wanted to go to America and they didn't have enough money to take Snow White with them.

Snow White didn't want her uncle and aunt to do this. So she decided to run away. The next morning she run away from home when her aunt and uncle were having breakfast, she run away into the wood. In the wood she felt very tired and hungry. Then she saw this cottage. She knocked but no one answered so she went inside and felt asleep.

Meanwhile seven dwarfs were coming home from work. They went inside. There, they found Snow White woke up. She saw the dwarfs. The dwarfs said; "What is your name?". Snow White said; "My name is Snow White". One of the dwarfs said; "If you wish, you may live here with us". Snow White told the whole story about her. Then Snow white and the seven dwarfs lived happily ever after.

6. What is the main idea of the first paragraph ?

a. Snow white live with her aunt and uncle because her parents were died

b. Snow white live alone

c. Once upon a time there lived a little, named snow white

d. Snow white live her parents

7. What is the text talk about ?
    a. Snow white c. snow white and her father
    b. Beast d. snow white and beast
8. What is the learn of the story snow white ?
    a. After tears become happiness
    b. Snow white and the seven dwarfs lived happily
    c. Princess is a lucky person
    d. Happiness is a being a princess
9. She run away into the wood. (paragraph 3 line 3)
    she refers to…
    a. Her aunt
    b. Her uncle
    c. Snow white
    d. Seven dwarfs
10. What is the purpose of the text above ?
    a. To inform the readers about important and newsworthy events
    b. To entertain readers with fairy tale
    c. To share an account of an unusual event
    d. To persuade readers to accept his/her opinions
C. Text 3 is appropriate to number 11-15

Once upon a time, there was a girl named Beauty. She lived with her father and her sister in a small village. Beauty was a beautiful girl. She was also hard worker. She always helped her father on the farm.

One day, her father set out for the city. He saw an old castle and wet in. no one was in, but here was food on the table. Then, he walked around the castle. He picked a rose from the garden for Beauty. Suddenly, an angry Beast appeared. He wanted to kill Beauty's father, unless Beauty was brought to him.

Beauty's father told his daughters what had happened. Beauty's sisters order her to see the beast.

Beauty went to the Beast and had to stay at the castle. She felt scared, lonely and sad. She tried to run away, but she was stopped by the Beast. The Beast treated Beauty well. Soon, beauty began to like the Beast.

One day, through the Beast's magic mirror. Beauty saw that her father was sick. The Beast allowed her to go home. Her father was happy to see her.

One night, Beauty had a dream. A fairy told her that Beast was sick. Beauty hurried back and saw the Beast dying. She began to cry. Tears fell into the Beast. Suddenly, the Beast changed into handsome prince. Beauty and the Beast got married and lived happily ever after.

11. What is the main idea of paragraph 1 ?

a. Beauty lived with her father and her sister in a small village
b. Beauty lived with beast in small village
c. Beauty lived alone
d. There was a girl named beauty

12. What is the talk about ?
    a. Beauty and the beast   c. beauty
    b. Cinderella   d.beast

13. What is the message of the story above ?
    a. Don't look at someone because of his clothes
    b. It is best for prepare for the days of necessity
    c. Common people may prove great ones
    d. That beauty is on the inside and that people should not be judged on apprearances

14. She lived with her father and her sister in a <u>small</u> village. (paragraph 1 line 2)
    The antonym of the underlined word….
    a. Big   c. any
    b. Biggest   d all

15. What is the purpose of the text above?
    a. To tell us how to write a story
    b. To inform what happened in the past
    c. To give a description of a beautiful girl
    d. To retell about beauty's experience

D. Text 4 is appropriate question to numbers 16-20

There was once a young shepherd boy who tended his sheep at the foot of a mountain near a dark forest. It was lonely for him watching the sheep all day. No one was near; except for three farmers he could sometimes see working in the fields in the valley below.

One day the boy thought of a plan that would help him get a little company and have some fun. He ran down toward the valley crying, "Wolf! Wolf!"The men ran to meet him, and after they found out there was no wolf after all, one man remained to talk with the boy awhile.The boy enjoyed the company so much that a few days later he tried the same prank again, and again the men ran to help him.

A few days later, a real wolf came from the forest and began to steal the sheep. The startled boy ran toward the valley, and more loudly than ever he cried, "Wolf! Wolf!"But the men, who had been fooled twice before, thought that the boy was tricking them again. So no one came to help the boy save his sheep.

16. What is the main idea of paragraph 1 ?
    a. A young shepherd boy who tended his sheep
    b. A wolf and the sheep

c. A boy tended his wolf
   d. The boy watching the sheep all day
17. What is the text talk about
   a. The boy and the sheep
   b. The boy who cried wolf
   c. The boy and the wolf
   d. The boy who cried a sheep
18. What is the value we find from the story ?
   a. Don't worry
   b. Don't make mistake
   c. Nobody believes liar, even when he tells the truth
   d. Don't make people sad
19. He ran down toward the valley crying (paragraph 2 line 2)
   he refers to….
   a. Young man
   b. Green boy
   c. The boy
   d. Old father
20. What us the purpose of text above ?
   a. To entertain the readers about never lie
   b. To describe the reader about the story
   c. To inform what happened in the past
   d. To give a description about bad man

E. Text 5 is appropriate question to number 16-20

Long time ago, lived a pretty girl with her stepmother and two stepsisters. Her name was Cinderella. She was hard workers.

One day, the King wanted to find his son a good wife. So, he decided to have a party. All the girls in the town were invited. Cinderella wanted to go to the party, but here stepmother and her stepsisters would not let her go. She was very sad. Tears fell down to her cheeks.

Suddenly, her Fairy Godmother appeared. "Why are you crying, Cinderella?" a voiced asked her. She looked up and saw her fairy godmother. "Because I want to go to the party so much," said Cinderella. "Well, you've been such a cheerful uncomplaining and hardworking girl. To pay that, you must go to the party," said the fairy godmother. Magically, the fairy godmother changed a pumpkin into a fine coach and mice into a coachman and two footmen. Her fairy godmother tapped Cinderella's ragged dress with her hand, and it became a beautiful gown. She changed Cinderella into a beautiful princess. On her feet were two lonely glass slippers.

When Cinderella arrived, everybody went quiet. They were attracted by her beauty. The Prince walked up to greet her. Cinderella remembered what her two step sisters had said about

the Prince that he was handsome. Indeed, he was. She was happy to be with him. They danced the whole night through. The clock struck twelve. Cinderella ran out of the ballroom. In her hurry, she lost one of her glass slippers.

The next day, the prince sent his guard to find the girl whose foot fitted to the slipper. The guard found Cinderella. Her foot fitted to the slipper. Cinderella and the prince were married and they lived happily ever after.

21. What is main idea of paragraph 2 ?
    a. The king wanted to find his son a good wife
    b. The king wanted to find his girl a good husband
    c. The king decide to have a party
    d. The king wanted a party
22. What is the text talk about ?
    a. Cinderella   c. beauty
    b. Beauty and beast   d. snow white
23. What is the moral value of the story above ?
    a. God will give us a wonderful gift if we always still be a good person (cheerful, hardworking, uncomplaining)
    b. God will give us a bad gift if we always still be a bad person
    c. Don't never be patience

Sipirok,   September 2015
Validator,   Teacher,

Sojuangon Rambe, S.S., M.Pd
NIP. 19790815 200604 1 003

Key Answer of Post-test in Experiment Class and Control Class:

1. A	11. A	21. A
2. A	12. A	22. A
3. A	13. A	23. C
4. A	14. B	24. A
5. A	15. A	25. A
6. A	16. A	
7. B	17. A	
8. C	18. C	
9. B	19. A	
10.A	20. A	

Appendix 5. **Post-test for Experiment Class and Control Class**

Instruction: Cross the right answer to the question below.

A. Text 1 is appropriate question to number 1-5

Once upon a time, there was a little poor boy came into a little village. He was very hungry and weak. He knocked at every door and asked for some food, but nobody cared about him. Nobody wanted to help the little boy.

Finally, a generous woman helped him. She gave him shelter and a meal. When the boy wanted to leave, this old woman gave him a "lesung", a big wooden mortar for pounding rice. She reminded him, "Please remember, if there is a flood you must save yourself. Use this "lesung" as a boat". The "lesung" was happy and thanked the old woman. The little boy continued his journey. While he was passing through the village, he saw many people gathering on the field. The boy came closer and saw a stick stuck in the ground. People challenged each other to pull out that stick. Everybody tried, but nobody succeeded. "Can I try?" asked the little boy. The crowd laughed mockingly. The boy wanted to try his luck so he stepped forward and pulled out the stick. He could do it very easily. Everybody was dumbfounded.

Suddenly, from the hole left by stick, water spouted out. It did not stop until it flooded the village. And no one was saved from the water except the little boy and the generous old woman who gave him shelter and meal. As she told him, he used the "lesung" as a boat and picked up the old woman. The whole village became a huge lake. It is now known as RawaPening Lake in Salatiga, Central Java, Indonesia.

1. What is the main idea of the third paragraph?
   a. From the hole left by stick, water spouted out
   b. Water did not flooded the village
   c. Shelter and meal
   d. Rawapening lake in salatiga, centlral java, Indonesia

2. What is the text about ?
   a. The legend of Rawa pening
   b. The legend of Lake toba
   c. The boy and lesung
   d. Lake in salatiga

3. What is the moral value of the text?
   a. As a people must help each other
   b. Don't try to help who wants need you are
   c. Everything need process
   d. Try to take care to your friends

4. <u>She</u> gave him shelter and a meal. (paragraph 2 line 2)
   She refers to….
   a. A woman   c. A man
   b. A boy   d. A farmer

5. What is the purpose of the text above ?
   a. To entertain the readers about the Legend of Rawa Pening .
   b. To describe the reader about the story
   c. To inform what happened in the past
   d. To give a description about Lake in salatiga, Central Java

B. Text 2 is appropriate question to number 6-10

Two ducks who lived in a big lake had a friend who was a turtle. One year there was a very little rain and the land began to dry up. One of the ducks said to the others, "Soon there'll be no water in this lake". "Yes, answered the second duck, but first let's say goodbye to our friend, the turtle".

When they told the turtle they were going to leave, he said, " I'll die here without any water and without any friends. Take me with you." The ducks answered, "We can't. We are going to fly, and you have no wings." The turtle thought for a minute and then said, "Please wait here." Then he went away and found a strong, straight stick. He bought it back to his friends, put the middle of it in his mouth and said, "Now if each of you takes me one end of the stick in his mouth, you can lift me up and carry me with you."

"There is one danger," said the ducks, " If you try to talk while we're carrying you through the air, you won't be able to hold the stick, so you'll fall down along way and break your shell." "All right, answered the turtle," I promise not to talk while we're in the air. So the duck took the stick and flew away, with the turle between them. All went well until they were flying over the town. Then some people saw them and shouted, "Look, those ducks are carrying a cat!" The turtle got very angry, "A cat? I'm not..." He said, but he didn't get any further,. Then, the turtle died because he didn't do what the duck said to him for do not told while they're in the air.

6. What is the main idea of paragraph 1 ?
   a. Two ducks who lived in a big lake had a friend who was a turtle
   b. Two ducks who live in a big lake
   c. A turtle who lived in a big lake
   d. A duck who lived in a big lake had a friend who was a turtle

7. What is the text tells about?
   a. Two ducks who lived in a big lake had a friend who was a turtle
   b. Two ducks and a turtle
   c. A turtle want to fly
   d. The duck was died

8. What is the moral value of the story above ?
   a. United we stand, divided we fall
   b. don't open your mouth
   c. Listen what do others say
   d. Don't look at someone because of his clothes

9. "Look, those ducks are carrying a cat!". (paragraph 3 line 5)
   The synonyms of the underlined word …..
   a. Read   c. Speak
   b. See   d. Watch

10. What is the purpose of the text above ?
    a. To entertain the readers about story.
    b. To describe the reader about the story
    c. To inform what happened in the past
    d. To give a description about a turtle and the ducks

C. Text 3 is appropriate question to number 11-15

Once upon a time, there was a man who was living in north Sumatra. He lived in a simple hut in a farming field. He did gardening and fishing for his daily life. One day, while the man was do fishing, he caught a big golden fish in his trap. It was the biggest catch which he ever had in his life. Surprisingly, this fish turned into a beautiful princess. He felt in love with her and proposed her to be his wife. She said; "Yes, but you have to promise not to tell anyone about the secret that I was once a fish, otherwise there will be a huge disaster". The man made the deal and they got married, lived happily and had a son.

Few years later, this son would help bringing lunch to her father out in the fields. One day, his son was so hungry and he ate his father's lunch. Unfortunately, he found out and got furious, and shouted; "You damned son of a fish". The son ran home and asked his mother. The mother started crying, felt sad that her husband had broken his promise.

Then she told her son to run up the hills because a huge disaster was about to come. When her son left, she prayed. Soon there was a big earthquake followed by non-stop pouring rain. The whole area got flooded and became Toba Lake and she turned into a fish again.

11. What is the main idea of paragraph 1?
    a. He did gardening and fishing for his daily life
    b. A man married with golden fish and had a son
    c. A man caught a big golden fish
    d. A golden fish turned into a ugly princess

12. What is the text talk about ?
    a. The story of Lake toba   c. The man and a golden fish

b. The life's man   d. The man and beautiful princess

13. What is the learn of the story above ?
    a. A promise is everything   c. Don't forget your mother
    b. Don't angry with son   d. Listen everything people talk

14. <u>He</u> lived in a simple hut in a farming field.(paragraph 1 line 2)
    He refers to…..
    a. A golden fish   c. A son
    b. A man   d. A beautiful princess

15. What is the purpose of the text above ?
    a. To entertain the readers
    b. To describe about lake toba
    c. To report about lake toba
    d. To give information about how to make Toba lake

D. **Text 4 is appropriate question to number 16-20**

Once, as a lion lay sleeping in his den, a naughty little mouse ran up his tail, onto his back, up his mane and danced and jumped on his head, so that the lion woke up.Lion angry grabbed the mouse and, holding him in his large claws, roared in anger. 'How dare you wake me up? Don't you know that I am King of the Beasts? Anyone who disturbs my rest deserves to die! I shall kill you and eat you!' The terrified mouse, shaking and trembling, begged the lion to let him go.

'Please don't eat me Your Majesty! I did not mean to wake you, it was a mistake. I was only playing. Please let me go - and I promise I will be your friend forever. Who knows but one day I could save your life?'The lion looked at the tiny mouse and laughed. 'You save my life? What an absurd idea!' he said scornfully. 'But you have made me laugh, and put me into a good mood again, so I shall let you go.' And the lion opened his claws and let the mouse go free. 'Oh thank you, your majesty,' squeaked the mouse, and scurried away as fast as he could.

16. What is the main idea of paragraph 1 ?
    a. Lion lay and little mouse ran up in his tail
    b. Lion was angry to the mouse
    c. Lion woke up
    d. Lion will eat little mouse

17. What is the text talk about ?
    a. The mouse and the lion
    b. The lion and the bird
    c. The lion's life

        d. The mouse's life

18. What is the message of the text ?
    a. Don't look at someone because of his clothes
    b. It is best for prepare for the days of necessity
    c. You cant know when your gonna need help so be nice with the others and the others would be nice with you
    d. United we stand, divided we fall

19. I shall kill you and eat you
The antonyms of the underlined word….
    a. Drink   c. Run
    b. Sleep   d. Fly

20. What is the purpose of the text above ?
    a. To entertain the readers
    b. To persuade the readers that something should or should not be the case
    c. To inform the readers about the events of the day which are considered news worthy
    d. The explain something

E. Text 5 is appropriate question to number 21-25

      Once upon a time, there lived a handsome boy in Baghdad. The name was Aladdin. He was a clever boy, but he did not like to work. One day Aladdin's mother sent him to the market place to look for a job. In the market he met a magician. The magician asked him to work together with him. If Aladdin could do, he would get a lot of gold coins and jewelers. The magician asked Aladdin to go inside the cave and find a magical lamp there. He also gave a ring and said, "If you are in any trouble, rub this ring and a genie will come to your rescue!"Aladdin went into the cave. Inside the cave, Aladdin was surprised by what he saw. Every corner was full of gold and treasures. A few minutes later, he found the lamp and quickly returned to the entrance of the cave. Aladdin called out, "Magician, I have found the lamp." "Excellent," answered the magician. "Quick, pass it to me!" Aladdin did not trust the magician so he said, "Not so fast Magician. You must help me out of this cave first."

      The magician became very angry. When Aladdin was walking to the entrance; the magician pushed a huge rock over the entrance of the cave and left Aladdin and the lamp behind. Aladdin tried to move the rock all by himself, but it was too big and heavy, "Oh no! I am trapped in the cave!" he cried. Suddenly, he remembered the magic ring. He rubbed it with the palm of his hand. To his surprise, a genie appeared before him and in a powerful voice said, "Master, I am the Genie of the ring. How can I help you?" Aladdin was frightened, but he soon found the courage to ask, "Could you please send me back to my house?" In no time at all Aladdin was backing home.

      Aladdin took out the lamp. He wondered what would happen if he rubbed it. As Aladdin was rubbing it, all of a sudden another enormous genie stood before him. The genie

of the lamp said, "Master, your wish is my command." Aladdin was very excited and wished for an enormous palace and bags full of gold. One day, a beautiful princess was passing by Aladdin's palace. She stopped to talk to Aladdin and soon they became good friends. Before long, Aladdin and Jasmine fell in love each other. She married Aladdin and lived happily.

21. What is the main idea of Paragraph 2 ?
   a. The magician became very angry
   b. The magician want Aladdin give a lamp
   c. Aladdin back to home
   d. The magician want Aladdin take a lamp in cave

22. What is the text talk about ?
   a. Aladdin and magic lamp
   b. A clever boy
   c. A handsome boy
   d. Aladdin and Jasmine

23. What is the value of the story above ?
   a. Don't look at someone because of his clothes
   b. It is best for prepare for the days of necessity
   c. Its better to be yourself than to pretend to be something you're not
   d. United we stand, divided we fall

24. One day,a beautiful princess was passing by Aladdin's palace.paragraph 3 line 6
   The synonyms of the underlined word….
   a. Pretty   c. Good
   b. Ugly   d. Nice

25. What is the purpose of the text above ?
   a. To entertain the readers about story Aladdin and magic lamp
   b. To persuade the readers that something should or should not be the case
   c. To inform the readers about the events of the day which are considered news worthy
   d. The explain something

Sipirok,   September 2015
Validator,   Teacher,

Sojuangon Rambe, S.S., M.Pd
NIP. 19790815 200604 1 003

Key Answer of Post-test in Experiment Class and Control Class:

1. A	11. A	21. A
2. A	12. A	22. A
3. A	13. A	23. C
4. A	14. B	24. A
5. A	15. A	25. A
6. A	16. A	
7. B	17. A	
8. C	18. C	
9. B	19. A	
10.A	20. A	

Appendix 18

RESULT OF NORMALITY TEST IN PRE–TEST

Result of Grade VIII-1 in MTs N 1 Sipirok

1. The score of VIII-1 class in pre-test from low score to high score as below:

45	45	45	50	50	50	50	55	55	55	55
55	60	60	60	60	60	60	65	65	65	65
65	65	65	65	70	70	70	75	75	75	

2. High   = 75

    Low   = 45

         Range = High – Low

               = 75 – 45

               = 30

3. Total of Classes   = 1 + 3.3 log (n)

                  = 1 + 3.3 log (32)

                  = 1 + 3.3 (1,50)

                  = 1 + 4.95

                  = 5.95

                  = 6

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

5. Mean

Interval Class	F	X	$x^{'}$	$fx^{'}$	$x^{'2}$	$fx^{'2}$
45 – 49	3	47	4	12	16	48
50 – 54	4	52	3	12	9	36
55 – 59	5	57	2	10	4	20
60 – 64	6	62	1	6	1	6
65 – 69	8	**67**	0	0	0	0
70 – 74	3	72	-1	-3	1	3
75 – 79	3	77	-2	-6	4	12
$i = 5$	32	-	-	31	-	125

$$Mx = M^1 + i\frac{\Sigma fx^1}{N}$$

$$= 67 + 5\left(\frac{31}{32}\right)$$

$$= 67 + 5\,(0.96)$$

$$= 67 + (4.80)$$

$$= 71.80$$

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

$$= \sqrt[5]{\frac{125}{32} - \left(\frac{31}{32}\right)^2}$$

$$= \sqrt[5]{3.90 - (0.96)^2}$$

$$= \sqrt[5]{3.90 - 0.92}$$

$$= \sqrt[5]{2.98}$$

$$= 5\,(1.72)$$

$$= 8.60$$

Table of Normality Data Test with Chi-Kuadrad Formula

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	f_h	f_0	$\frac{(f_0-f_h)}{f_h}$
75–79	79.5	1.16	0.3770				
				0.15	5.25	3	-0.42
70 – 74	74,5	0.60	0.2257				
				0.20	7	3	-0.57
65 – 69	69,5	0.04	0.0160				
				-30	-10	8	-1.8
60 – 64	64,5	-0.51	0.30854				
				0.16	5.6	6	0.07
55 – 59	59,5	-1.07	0.14231				
				0.09	3.15	5	0.58
50 – 54	54,5	-1.64	0.05050				
				0.03	1.05	4	2.80
45 – 49	49,5	-2.20	0.01390				
				0.01	0.35	3	7.57
	44,5	-2.76	0.00289				
						X^2	9.03

Based on table above, the researcher found that x^2_{count} = 9.03 while x^2_{table}=5.991 cause x^2_{count}< x^2_{table} (9.03 < 5.991) with degree of freedom dk = 5 – 3 = 2 and significat level α = 5%. So, distribution of VIII-1 class (pre-test) was not normal.

6. Median

No.	Interval of Classes	F	Fk
1	45 – 49	3	3
2	50 - 54	4	7
3	55 - 59	5	12
4	60 - 64	6	18
5	**65 - 69**	**8**	26
6	70 - 74	3	29
7	75 - 79	3	32

Position of Me in the interval of classes is number 5, that:

Bb = 64.5

F = 6

fm = 8

i = 5

n = 32

1/2n =16

So,

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

$$= 64.5 + 5 \left(\frac{16-6}{8} \right)$$

$$= 64.5 + 5 \, (1.25)$$

$$= 64.5 + 6.25$$

$$= 70.75$$

7. Modus

No.	Interval of Classes	F	Fk
1	45 – 49	3	3
2	50 - 54	4	7
3	55 - 59	5	12
4	60 - 64	6	18
5	**65 - 69**	**8**	26
6	70 - 74	3	29
7	75 - 79	3	32

$M_o \quad = L + \dfrac{d_1}{d_1 + d_2}\, i$

$L \quad = 64.5$

$d_1 \quad = 2$

$d_2 \quad = 5$

$i \quad = 5$

$M_o \quad = 64.5 + \dfrac{2}{2+5}\, 5$

$\quad = 64.5 + 0.28\,(5)$

$\quad = 64.5 + 1.40$

$\quad = 65.90$

RESULT OF NORMALITY TEST IN PRE–TEST
Result of Grade VIII-2 in MTs N 1 Sipirok

1. The score of VIII-2 class in pre-test from low score to high score in the following table:

45	45	50	50	50	55	55	55	55	60
60	60	60	60	65	65	65	65	65	65
65	70	70	70	70	70	75	75	75	

2. High $\quad$ = 75

　　Low $\quad$ = 45

$$\text{Range} = \text{High} - \text{Low}$$
$$= 75 - 45$$
$$= 30$$

3. Total of Classes $\quad = 1 + 3.3 \log (n)$

$$= 1 + 3.3 \log (29)$$
$$= 1 + 3.3 \ (1.46)$$
$$= 1 + 4.81$$
$$= 5.81$$
$$= 6$$

4. Length of Classes $\quad = \dfrac{range}{total\ of\ class} \qquad = \dfrac{30}{6} = 5$

5. Mean

Interval Class	F	X	x'	fx'	x'^2	fx'^2
45 – 49	2	47	4	8	16	32
50 – 54	3	52	3	9	9	27
55 – 59	4	57	2	8	4	16
60 – 64	5	62	1	5	1	5
65 – 69	7	**67**	0	0	0	0
70 – 74	5	72	-1	-5	1	5
75 – 79	3	77	-2	-6	4	12
$i = 5$	29	-	-	19	-	97

$$Mx = M^1 + i\frac{\Sigma fx^1}{N}$$

$$= 67 + 5\left(\frac{19}{29}\right)$$

$$= 67 + 5\,(0.65)$$

$$= 67 + (3.25)$$

$$= 70.25$$

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

$$= 5\sqrt{\frac{97}{29} - \left(\frac{19}{29}\right)^2}$$

$$= 5\sqrt{3.34 - (0.65)^2}$$

$$= 5\sqrt{3.34 - 0.42}$$

$$= 5\sqrt{2.92}$$

$$= 5\,(1.70)$$

$$= 8.50$$

Table of Normality Data Test with Chi-Kuadrad Formula

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	f_h	f_0	$\frac{(f_0-f_h)}{f_h}$
75–79	79.5	1.04	0.3508				
				0.17	5.95	3	-0.49
70 – 74	74,5	0.47	0.1808				
				-0. 28	-9.8	5	-1.51
65 – 69	69,5	-0.09	0.46414				
				-0.20	-7	7	-2.00
60 – 64	64,5	-0.65	0.25785				
				0.14	4.2	5	0.19
55 – 59	59,5	-1.22	0.11123				
				0.07	2.8	4	0.42
50 – 54	54,5	-1.79	0.03673				
				0.02	0.7	3	3.28
45 – 49	49,5	-2.36	0.00914				
				0.00	0	2	2.00
	44,5	-2.93	0.00169				
						X^2	1.89

Based on table above, the researcher found that x^2_{count} = 1.89 while x^2_{table} = 5.991 cause $x^2_{count} < x^2_{table}$ (1.89 < 5.991) with degree of freedom dk = 5 – 3 = 2 and significat level α = 5%. So, distribution of VIII-2 class (pre-test) was normal.

6. Median

No	Interval of Classes	F	Fk
1	45 – 49	2	2
2	50 - 54	3	5
3	55 - 59	4	9
4	60 - 64	5	14
5	**65 - 69**	**7**	21
6	70 - 74	5	26
7	75 - 79	3	29

Position of Me in the interval of classes is number 5, that:

Bb = 64.5

F = 5

fm = 7

i = 5

n = 29

1/2n = 14.5

So,

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

$$= 64.5 + 5 \left(\frac{14.5 - 5}{7} \right)$$

$$= 64.5 + 5 \,(1.35)$$

$$= 64.5 + 6.75$$

$$= 71.25$$

7. Modus

No	Interval of Classes	F	Fk
1	45 – 49	2	2
2	50 - 54	3	5
3	55 - 59	4	9
4	60 - 64	5	14
5	**65 - 69**	**7**	21
6	70 - 74	5	26
7	75 - 79	3	29

$M_o \quad = L + \dfrac{d_1}{d_1 + d_2} \, i$

L $\quad = \ 64.5$

$d_1 \quad = 2$

$d_2 \quad = 2$

i $\quad = 5$

$M_o \quad = 64.5 + \dfrac{2}{2+2} \, 5$

$= 64.5 + 0.5 \,(5)$

$= 64.5 + 2.5$

$= 67$

Result of Grade VIII-3 in MTs N 1 Sipirok

1. The score of VIII-3 class in pre-test from low score to high score in the following table:

45	45	50	50	50	55	55	55	55	55
55	60	60	60	60	65	65	65	65	65
65	65	65	70	70	70	70	70	70	75

2. High $= 75$

   Low $= 45$

   Range $=$ High $-$ Low

   $= 75 - 45$

   $= 30$

3. Total of Classes $= 1 + 3.3 \log (n)$

   $= 1 + 3.3 \log (30)$

   $= 1 + 3.3 \ (1.47)$

   $= 1 + 4.85$

   $= 5.85$

   $= 6$

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

5. Mean

Interval Class	F	X	x$'$	fx$'$	x$'^2$	fx$'^2$
45 – 49	2	47	4	8	16	32
50 – 54	3	52	3	9	9	27
55 – 59	6	57	2	12	4	24
60 – 64	4	62	1	4	1	4
65 – 69	8	**67**	0	0	0	0
70 – 74	6	72	-1	-6	1	6
75 – 79	1	77	-2	-2	4	4
$i = 5$	30	-	-	25	-	97

$$Mx = M^1 + i\frac{\Sigma fx^1}{N}$$

$$= 67 + 5\left(\frac{25}{30}\right)$$

$$= 67 + 5\,(0.83)$$

$$= 67 + (4.15)$$

$$= 71.15$$

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

$$= 5\sqrt{\frac{97}{30} - \left(\frac{25}{30}\right)^2}$$

$$= 5\sqrt{3.23 - (0.83)^2}$$

$$= 5\sqrt{3.23 - 0.68}$$

$$= 5\sqrt{2.55}$$

$$= 5\,(1.59)$$

$$= 7.95$$

Table of Normality Data Test with Chi Kuadrad Formula

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	f_h	f_0	$\frac{(f_0-f_h)}{f_h}$
75–79	79.5	0.79	0.2852				
				0.19	5.13	1	-0.80
70 – 74	74,5	0.22	0.0871				
				-0.04	-1.08	6	-6.55
65 – 69	69,5	-0.35	0.1368				
				-0.18	-4.86	8	-2.64
60 – 64	64,5	-0.92	0.3212				
				-0.11	-2.97	4	-2.34
55 – 59	59,5	-1.5	0.4332				
				0.41	11.07	6	-0.45
50 – 54	54,5	-2.07	0.01923				
				0.01	0.27	3	1.01
45 – 49	49,5	-2.64	0.00402				
				0.003	0.081	2	2.36
	44,5	-3.22	0.00064				
						X^2	-9.41

Based on table above, the researcher found that x^2_{count} = -9.41 while x^2_{table}=5.991 cause x^2_{count}< x^2_{table} (-9.41 < 5.991) with degree of freedom dk = 5 – 3 = 2 and significat level α = 5%. So, distribution of VIII-3 class (pre-test) was normal.

6. Median

No.	Interval of Classes	F	Fk
1	45 – 49	2	2
2	50 - 54	3	5
3	55 - 59	6	11
4	60 - 64	4	15
5	**65 - 69**	**8**	23
6	70 - 74	6	29
7	75 - 79	1	30

Position of Me in the interval of classes is number 5, that:

Bb   = 64.5

F   = 4

fm   = 8

i   = 5

n   = 30

1/2n   =15

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

$= 64.5 + 5 \left(\frac{15-4}{8} \right)$

$= 64.5 + 5 \ (1.37)$

$= 64.5 + 6.85$

$= 71.35$

7. Modus

No.	Interval of Classes	F	Fk
1	45 – 49	2	2
2	50 - 54	3	5
3	55 - 59	6	11
4	60 - 64	4	15
5	**65 - 69**	**8**	23
6	70 - 74	6	29
7	75 - 79	1	30

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

L = 64.5

d_1 = 4

d_2 = 2

i = 5

M_o = $64.5 + \dfrac{4}{4+2} 5$

= 64.5 + 0.66 (5)

= 64.5 + 3.3

= 67.80

Appendix 19

HOMOGENEITY TEST (PRE-TEST)

Calculation of parameter to get variant of the first class as experimental class sample by using QAR (Question-Answer- Relationship) strategy and variant of the second class as control class sample by using PQRS (Preview, Question, Read, and Summarize) strategy are used homogeneity test by using formula:

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

Hypotheses:

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

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

A. Variant of the VIII-1 class is:

45	45	45	50	50	50	50	55	55	55	55
55	60	60	60	60	60	60	65	65	65	65
65	65	65	65	70	70	70	75	75	75	

No.	Xi	Xi^2
1	45	2025
2	45	2025
3	45	2025
4	50	2500
5	50	2500
6	50	2500
7	50	2500
8	55	3025
9	55	3025
10	55	3025

11	55	3025
12	55	3025
13	60	3600
14	60	3600
15	60	3600
16	60	3600
17	60	3600
18	60	3600
19	65	4225
20	65	4225
21	65	4225
22	65	4225
23	65	4225
24	65	4225
25	65	4225
26	65	4225
27	70	4900
28	70	4900
29	70	4900
30	75	5625
31	75	5625
32	75	5625
	1925	**118175**

$n = 32$

$\sum xi = 1925$

$\sum xi 2 = 118175$

So:

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

$$\frac{32(118175) - (1925)^2}{32(32-1)}$$

$$= \frac{3781600 - 3705625}{32(31)}$$

$$= \frac{75975}{992}$$

$$= 76.58$$

B. Variant of the VIII-2 class is:

45	45	50	50	50	55	55	55	55	60
60	60	60	60	65	65	65	65	65	65
65	70	70	70	70	70	75	75	75	

No.	X_i	X_i^2
1	45	2025
2	45	2025
3	50	2500
4	50	2500
5	50	2500
6	55	3025
7	55	3025
8	55	3025
9	55	3025
10	60	3600
11	60	3600
12	60	3600
13	60	3600
14	60	3600
15	65	4225
16	65	4225
17	65	4225
18	65	4225
19	65	4225
20	65	4225
21	65	4225
22	70	4900
23	70	4900
24	70	4900
25	70	4900
26	70	4900
27	75	5625
28	75	5625
29	75	5625
	1790	**112600**

n   = 29

$\sum xi = 1790$
$\sum_{xi} 2 = 112600$

So,

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

$$\frac{29(112600) - (1790)^2}{29(29-1)}$$

$$= \frac{3265400 - 3204100}{29(28)}$$

$$= \frac{61300}{812}$$

$$= 75.49$$

C. Variant of the VIII-3 class is:

45	45	50	50	50	55	55	55	55	55
55	60	60	60	60	65	65	65	65	65
65	65	65	70	70	70	70	70	70	75

No.	Xi	Xi^2
1	45	2025
2	45	2025
3	50	2500
4	50	2500
5	50	2500
6	55	3025
7	55	3025
8	55	3025
9	55	3025
10	55	3025
11	55	3025
12	60	3600
13	60	3600
14	60	3600
15	60	3600

16	65	4225
17	65	4225
18	65	4225
19	65	4225
20	65	4225
21	65	4225
22	65	4225
23	65	4225
24	70	4900
25	70	4900
26	70	4900
27	70	4900
28	70	4900
29	70	4900
30	75	5625
	1825	112925

n $= 30$

$\sum xi = 1825$

$\sum_{xi} 2 = 112925$

So,

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

$$\frac{30(112925) - (1825)^2}{30(30-1)}$$

$$= \frac{3387750 - 3330625}{30(29)}$$

$$= \frac{57125}{870}$$

$$= 65.66$$

The Formula was used to test hypothesis was:

1. **Class VIII-2 and Class VIII-3 :**

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

So,

$$F = \frac{75.49}{65.66}$$

$$= 1.14$$

After doing the calculation, researcher found that $F_{count} = 1.14$ with α 5 % and dk = 29 from the distribution list F, researcher found that $F_{table} = 2.045$, cause $F_{count} < F_{table}$ (1.14 < 2.045). So, there is no difference the variant between the VIII-2 class and VIII-3 class. It means that the variant is homogenous**.**

2. **Class VIII-1 and Class VIII-2 :**

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

So:

$$F = \frac{76.58}{75.49}$$

$$= 1.01$$

After doing the calculation, researcher found that $F_{count} = 1.01$ with α 5 % and dk = 29 from the distribution list F, researcher found that $F_{table} = 2.045$,

cause $F_{count} < F_{table}$ (1.01 < 2.021). So, there is no difference the variant between the VIII-1 class and VIII-2 class. It means that the variant is homogenous.

3. **Class VIII-1 and Class VIII-3 :**

$$F = \frac{The\ Biggest\ Variant}{The\ SmallesD\ Variant}$$

So:

$$F = \frac{76.58}{65.66}$$

$$= 1.16$$

After doing the calculation, researcher found that $F_{count} = 1.16$ with α 5 % and dk = 32 and 29 from the distribution list F, researcher found that $F_{table} = 2.036$ & 2.045, cause $F_{count} < F_{table}$ (1.16 < 2.036 & 2.045). So, there is no difference the variant between the VIII-3 class and VIII-1 class. It means that the variant is homogenous.

Appendix 20

RESULT OF THE NORMALITY TEST OF EXPERIMENT CLASS
IN POST-TEST

1. The score of experiment class (using QAR strategy) in post-test from low score to high score in the following table:

65	65	70	70	75	75	75	80	80	80
80	80	80	80	80	85	85	85	85	85
85	85	85	85	90	90	95	95	95	

2. High = 95

   Low   = 65

   Range = High – Low

   = 95- 65

   = 30

3. Total of Classes   = 1 + 3.3 log (n)

   = 1 + 3.3 log (29)

   = 1 + 3.3 (1.46)

   = 1 + 4.81

   = 5.81

   = 6

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

5. Mean

Interval Class	F	X	$x^{'}$	$fx^{'}$	$x^{'2}$	$fx^{'2}$
65 – 69	2	52	4	8	16	32
70 – 74	2	57	3	6	9	18
75 – 79	3	62	2	6	4	12
80 – 84	8	67	1	8	1	8
85 – 89	9	**72**	0	0	0	0
90 – 94	2	77	-1	-2	1	2

95 – 99	3	82	-2	-6	4	12
i =5	29	-	-	20	-	84

$$Mx = M^1 + i \frac{\Sigma fx^1}{N}$$

$$= 72 + 5 \left(\frac{20}{29}\right)$$

$$= 72 + 5 \, (0.68)$$

$$= 72 + (3.4)$$

$$= 75.4$$

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

$$= \sqrt[5]{\frac{84}{29}} - \left(\frac{20}{29}\right)^2$$

$$= \sqrt[5]{2.89 - (0.68)^2}$$

$$= \sqrt[5]{2.89 - (0.46)}$$

$$= \sqrt[5]{2.43}$$

$$= 5 \, (1.55)$$

$$= 7.75$$

Table of Normality Data Test with Chi-Kuadrad Formula

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	f_h	f_0	$\dfrac{(f_0-f_h)}{f_h}$
	99.5	1.62	0.4474				
95-99				0.10	2.7	3	0.11
	94.5	1	0.3413				
90-94				0.19	5.13	2	-0.61
	89.5	0.37	0.1443				
85-89				-0.25	-6.75	9	-2.33
	84.5	-0.25	0.40129				
80-84				0.20	5.4	8	0.48
	79.5	-0.87	0.19215				
75-79				0.12	3.24	3	-0.07
	74.5	-1.5	0.06681				
70-74				0.04	1.08	2	0.85
	69.5	-2.12	0.01700				
65-69				0.01	0.27	2	6.40
	65.5	-2.62	0.00440				
						X^2	4.88

Based on table above, the researcher found that $x^2{}_{count} = 4.88$ while $x^2{}_{table} = 5.991$ cause $x^2{}_{count} < x^2{}_{table}$ (4.88 < 5.991) with degree of freedom dk = 5 – 3 = 2 and significat level $\alpha = 5\%$. So distribution of experiment class (post-test) was normal.

6. Median

No.	Interval Class	F	Fk
1	65 – 69	2	2
2	70 - 74	2	4
3	75 - 79	3	7
4	80 - 84	8	15
5	85 - 89	**9**	24
6	90 - 94	2	26
7	95 – 99	3	29

Position of Me in the interval of classes is number 5, that:

Bb = 84.5

F = 8

fm = 9

i = 5

n = 29

1/2n =14.5

So,

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

$$= 84.5 + 5 \left(\frac{14.5 - 8}{9} \right)$$

$$= 84.5 + 5 \ (0.72)$$

$$= 84.5 + 3.6$$

$$= 88.10$$

7. Modus

No.	Interval Class	F	Fk
1	65 – 69	2	2
2	70 - 74	2	4
3	75 - 79	3	7
4	80 - 84	8	15
5	85 - 89	**9**	24
6	90 - 94	2	26
7	95 – 99	3	29

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

L   = 84.5

d_1 = 1

d_2 = 7

i   = 5

M_o $= 84.5 + \frac{1}{1+7} \, 5$

         $= 84.5 + 0.12 \, (5)$

         $= 84.5 + 0.62$

         $= 85.12$

Apendix 21

RESULT OF THE NORMALITY TEST OF CONTROL CLASS
IN POST-TEST

1. The score of control class (using PQRS strategy) in post-test from low score to high score as below:

50	50	55	55	60	60	60	65	65	65
65	65	65	65	65	70	70	70	70	70
70	75	75	75	75	75	80	80	80	80

2. High = 80

    Low = 50

    Range = High – Low
    = 80 – 50
    = 30

3. Total of Classes = 1 + 3.3 log (n)

    = 1 + 3.3 log (30)

    = 1 + 3.3 (1.47)

    = 1 + 4.85

    = 5.85

    = 6

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

5. Mean

Interval Class	F	X	x'	fx'	x'^2	fx'^2
50 – 54	2	52	3	6	9	18
55 – 59	2	57	2	4	4	8
60 – 64	3	62	1	3	1	3
65 – 69	8	**67**	0	0	0	0
70 – 74	6	72	-1	-6	1	6
75 – 79	5	77	-2	-10	4	20

80 – 84	4	82	-3	-12	9	36
$i = 5$	30	-	-	-15	-	91

$$Mx = M^1 + i\frac{\Sigma fx^1}{N}$$

$$= 67 + 5\left(\frac{-15}{30}\right)$$

$$= 67 + 5\,(-0.50)$$

$$= 67 + (-2.5)$$

$$= 64.5$$

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

$$= \sqrt[5]{\frac{91}{30}} - \left(\frac{-15}{30}\right)^2$$

$$= \sqrt[5]{3.03 - (-0.50)^2}$$

$$= \sqrt[5]{3.03 - (0.25)}$$

$$= \sqrt[5]{2.78}$$

$$= 5\,(1.66)$$

$$= 8.30$$

Table of Normality Data Test with Chi-Kuadrad Formula

Interval of Score	Real Upper Limit	Z – Score	Limit of Large of the Area	Large of area	f_h	f_0	$\dfrac{(f_0-f_h)}{f_h}$
	84.5	2.32	0.4898				
80 - 84				0.03	0.81	4	3.93
	79.5	1.72	0.4573				
75 – 79				0.09	2.43	5	1.05
	74.5	1.11	0.3665				
70 – 74				0.16	4.32	6	0.38
	69.5	0.53	0.2019				
65 – 69				-0.27	-7.29	8	-2.09
	64.5	-0.05	0.48006				
60– 64				0.22	5.94	3	-0.49
	59.5	-0.65	0.25785				
55- 59				0.15	4.05	2	-0.50
	54.5	-1.25	0.10565				
50 – 54				0.06	1.62	2	0.23
	50.5	-1.70	0.04457				
						X^2	2.51

Based on table above, the researcher found that $x^2{}_{count} = 3.11$ while $x^2{}_{table}$ = 5.991cause $x^2{}_{count} < x^2{}_{table}$ (2.51 < 5.991) with degree of freedom dk = 5 – 3 = 2 and significat level α = 5%. So, distribution of control class (post-test) was normal.

6. Median

No.	Interval Class	F	Fk
1	50 – 54	2	2
2	55 - 59	2	4
3	60 - 64	3	7
4	65 - 69	**8**	15
5	70 - 74	6	21
6	75 - 79	5	26
7	80 – 84	4	30

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

$$Bb \quad = 64.5$$
$$F \quad = 3$$
$$fm \quad = 8$$
$$i \quad = 5$$
$$n \quad = 30$$
$$1/2n \quad = 15$$

So,

$$Me \quad = Bb + i\left(\frac{n/_2 - F}{fm}\right)$$

$$= 64.5 + 5\left(\frac{15-3}{8}\right)$$

$$= 64.5 + 5\,(1.5)$$

$$= 64.5 + 7.5$$

$$= 72$$

7. Modus

No.	Interval Class	F	Fk
1	50 – 54	2	2
2	55 - 59	2	4
3	60 - 64	3	7
4	65 - 69	**8**	15
5	70 - 74	6	21
6	75 - 79	5	26
7	80 – 84	4	30

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

$L \quad = \; 64.5$

$d_1 \quad = 5$

$d_2 \quad = 2$

$i \quad = 5$

$M_o \quad = 64.5 + \frac{5}{5+2} \, 5$

$\quad\quad = 64.5 + 0.71 \,(5)$

$\quad\quad = 64.5 + 3.55$

$\quad\quad = 68.05$

Appendix 22

HOMOGENEITY TEST (POST-TEST)

1. **Experiment Class (using QAR strategy)**

65	65	70	70	75	75	75	80	80	80
80	80	80	80	80	85	85	85	85	85
85	85	85	85	90	90	95	95	95	

No.	Xi	Xi^2
1	65	4225
2	65	4225
3	70	4900
4	70	4900
5	75	5625
6	75	5625
7	75	5625
8	80	6400
9	80	6400
10	80	6400
11	80	6400
12	80	6400
13	80	6400
14	80	6400
15	80	6400
16	85	7225
17	85	7225
18	85	7225
19	85	7225
20	85	7225
21	85	7225
22	85	7225
23	85	7225
24	85	7225
25	90	8100
26	90	8100
27	95	9025
28	95	9025
29	95	9025
	2365	**194625**

n = 29

$\sum xi = 2365$

$\sum_{xi} 2 = 194625$

So,

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

$$= \frac{29(194625) - (2365)^2}{29(29-1)}$$

$$= \frac{5644125 - 5593225}{29(28)}$$

$$= \frac{50900}{812}$$

$$= 62.68$$

2. **Control Class (Using PQRS Strategy)**

50	50	55	55	60	60	60	65	65	65
65	65	65	65	65	70	70	70	70	70
70	75	75	75	75	75	80	80	80	80

No.	Xi	Xi^2
1	50	2500
2	50	2500
3	55	3025
4	55	3025
5	60	3600
6	60	3600
7	60	3600
8	65	4225
9	65	4225
10	65	4225
11	65	4225
12	65	4225
13	65	4225

14	65	4225
15	65	4225
16	70	4900
17	70	4900
18	70	4900
19	70	4900
20	70	4900
21	70	4900
22	75	5625
23	75	5625
24	75	5625
25	75	5625
26	75	5625
27	80	6400
28	80	6400
29	80	6400
30	80	6400
	2025	**138775**

n $\quad$ = 30

$\sum xi$ $\quad$ = 2025

$\sum_{xi} 2$ $\quad$ = 138775

So,

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

$$= \frac{30(138775) - (2025)^2}{30(30-1)}$$

$$= \frac{4163250 - 4100625}{30(29)}$$

$$= \frac{62625}{870}$$

$$= 71.98$$

The Formula was used to test hypothesis was:

1. **Class VIII-2 and Class VIII-3 :**

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

So,

$$F = \frac{71.98}{62.68}$$

$$= 1.14$$

After doing the calculation, the researcher found that $F_{count} = 1.14$ with α 5 % and dk = 29 & 30 from the distribution list F, the researcher found that $F_{table} = 2.045$ & 2.042, cause $F_{count} < F_{table}$ (1.14 < 2.045 & 2.042). So, there is no difference the variant between the VIII-2class and VIII-3 class. It means that the variant is homogenous**.**

Appendix 23

T_{test}OF THE BOTH AVERAGES IN PRE-TEST

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

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[5]{\frac{1}{n_1} + \frac{1}{n_2}}} \quad \text{with } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}}$$

So:

$$S = \sqrt{\frac{(29-1)\ 75.49 + (30-2)\ 65.66}{29+30-2}}$$

$$= \sqrt{\frac{28\ (75.49) + 28\ (65.66)}{57}}$$

$$= \sqrt{\frac{2113.72 + 1838.48}{57}}$$

$$= \sqrt{\frac{3952.20}{57}}$$

$$= \sqrt{69.33}$$

$$= 8.32$$

So,

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[5]{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{71.15 - 70.25}{8.32\sqrt{\frac{1}{29} + \frac{1}{30}}}$$

$$= \frac{0.90}{8.32\sqrt{0.034 + 0.033}}$$

$$= \frac{0.90}{8.32 \, (0.067)}$$

$$= \frac{0.90}{0.55}$$

$$= 1.63$$

Based on the counting above, the researcher calculated result the of homogeneity test of the both averages. The researcher found that t_{count}= 1.63 with opportunity (1-α) = 1 – 5% = 95% and dk = n_1 + n_2 - 2 = 29 + 30 – 2 = 57, the researcher found that t_{table} = 1.997, cause t_{count} < t_{table} (1.63 < 1.997). So, H_o was rejected, it means no difference the average between the first class as experimental class and the second class as control class in this research.

Appendix 24

T_{test} OF THE BOTH AVERAGES IN POST-TEST

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

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[5]{\frac{1}{n_1} + \frac{1}{n_2}}} \quad \text{with } S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 2)S_2^2}{n_1 + n_2 - 2}}$$

So:

$$S = \sqrt{\frac{(29-1)\, 62.68 + (30-2)\, 71.98}{29 + 30 - 2}}$$

$$= \sqrt{\frac{28\,(62.68) + 28\,(71.98)}{57}}$$

$$= \sqrt{\frac{1755.04 + 2015.44}{57}}$$

$$= \sqrt{\frac{3770.48}{57}}$$

$$= \sqrt{66.14}$$

$$= 8.13$$

So,

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt[s]{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{75.40 - 64.50}{8.13\sqrt{\frac{1}{29} + \frac{1}{30}}}$$

$$= \frac{10.90}{8.13\sqrt{0.034 + 0.033}}$$

$$= \frac{10.90}{8.13\,(0.067)}$$

$$= \frac{10.90}{0.54}$$

$$= 20.18$$

Based on the counting above, the researcher calculated the result of homogeneity test of the both averages. The researcher found that $t_{count} = 20.18$ with opportunity $(1-\alpha) = 1 - 5\% = 95\%$ and dk $= n_1 + n_2 - 2 = 29 + 30 - 2 = 57$, researcher found that $t_{table} = 1.997$, cause $t_{count} > t_{table}$ $(20.18 > 1.997)$. So, H_a was accepted, it means there was the difference average between the first class as experimental class and the second class as control class in this research.

Appendix 25

Chi-Square Table

dk	Significant level					
	50%	**30%**	**20%**	**10%**	**5%**	**1%**
1	0,455	1,074	1,642	2,706	3,841	6,635
2	1,386	2,408	3,219	4,605	**5,991**	9,210
3	2,366	3,665	4,642	6,251	7,815	11,341
4	3,357	4,878	5,989	7,779	9,488	13,277
5	4,351	6,064	7,289	9,236	11,070	15,086
6	5,348	7,231	8,558	10,645	12,592	16,812
7	6,346	8,383	9,803	12,017	14,067	18,475
8	7,344	9,524	11,030	13,362	15,507	20,090
9	8,343	10,656	12,242	14,684	16,919	21,666
10	9,342	11,781	13,442	15,987	18,307	23,209
11	10,341	12,899	14,631	17,275	19,675	24,725
12	11,340	14,011	15,812	18,549	21,026	26,217
13	12,340	15,119	16,985	19,812	22,362	27,688
14	13,339	16,222	18,151	21,064	23,685	29,141
15	14,339	17,222	19,311	22,307	24,996	30,578
16	15,338	18,418	20,465	23,542	26,296	32,000
17	16,338	19,511	21,615	24,769	27,587	33,409
18	17,338	20,601	22,760	25,989	28,869	34,805
19	18,338	21,689	23,900	27,204	30,144	36,191
20	19,337	22,775	25,038	28,412	31,410	37,566
21	20,337	23,858	26,171	29,615	32,671	38,932
22	21,337	24,939	27,301	30,813	33,924	40,289
23	22,337	26.018	28,429	32,007	35,172	41,638
24	23,337	27,096	29,553	33,196	35,415	42,980
25	24,337	28,172	30,675	34,382	37,652	44,314
26	25,336	29,246	31,795	35,563	38,885	45,642
27	26,336	30,319	32,912	36,741	40,113	46,963
28	27,336	31,391	34,027	37,916	41,337	48,278
29	28,336	32,461	35,139	39,087	42,557	49,588
30	29,336	33,530	36,250	40,256	43,773	50,892

Z-Table

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

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

Z-Table

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
0.7	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
2.3	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.6	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974

2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990
3,1	0,4990	0,4991	0,4991	0.4991	0,4992	0,4992	0,4992	0,4992	0,4993	0,4993
3,2	0,4993	0,4993	0,4994	0,4994	0,4994	0,4994	0,4994	0,4995	0,4995	0,4995
3,3	0,4995	0,4995	0,4995	0,4996	0,4996	0,4996	0,4996	0,4996	0,4997	0,4997
3,4	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4997	0,4998
3,5	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998	0,4998
3,6	0,4998	0,4998	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999
3,7	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999
3,8	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999	0,4999
3,9	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000	0,5000

Appendix

Percentage Points of the t Distribution

	Two Tail Test					
	0,50	**0,20**	**0,10**	**0,05**	**0,02**	**0,01**
	One Tail Test					
Dk	**0,25**	**0,10**	**0, 005**	**0,025**	**0,01**	**0,05**
1	1,000	3,078	6,314	12,706	31,821	63,657
2	0,816	1,886	2,920	4,303	6,965	9,925
3	0,765	1,638	2,353	3,182	4,541	5,841
4	0,741	1,533	2,132	2,776	3,747	4,604
5	0,721	1,486	2,015	2,571	3,365	4,032
6	0,718	1,440	1,943	2,447	3,143	3,707
7	0,711	1,415	1,895	2,365	2,998	3,499
8	0,706	1,397	1,860	2,306	2,896	3,355
9	0,703	1,383	1,833	2,262	2,821	3,250
10	0,700	1,372	1,812	2,228	2,764	3,165
11	0,697	1,363	1,796	2,201	2,718	3,106
12	0,695	1,356	1,782	2,178	2,681	3.055
13	0,692	1,350	1,771	2,160	2,650	3.012
14	0,691	1,345	1,761	2,145	2,624	2,977
15	0,690	1,341	1,753	2,132	2,623	2,947
16	0,689	1,337	1,746	2,120	2,583	2,921
17	0,688	1,333	1,743	2,110	2,567	2,898
18	0,688	1,330	1,740	2,101	2,552	2,878
19	0,687	1,328	1,729	2,093	2,539	2,861
20	0,687	1,325	1,725	2,086	2,528	2,845
21	0,686	1,323	1,721	2,080	2,518	2,831
22	0,686	1,321	1,717	2,074	2,508	2,819
23	0,685	1,319	1,714	2,069	2,500	2,807
24	0,685	1,318	1,711	2,064	2,492	2,797
25	0,684	1,316	1,708	2,060	2,485	2,787
26	0,684	1,315	1,706	2,056	2,479	2,779
27	0,684	1,314	1,703	2,052	2,473	2,771
28	0,683	1,313	1,701	2,048	2,467	2,763
29	0,683	1,311	1,699	**2,045**	2,462	2,756
30	0,683	1,310	1,697	**2,042**	2,457	2,750
40	0,681	1,303	1,684	**2,021**	2,423	2,704
60	0,679	1,296	1,671	2,000	2,390	2,660
120	0,677	1,289	1,658	1,980	2,358	2,617
∞	0,674	1,282	1,645	1,960	2,326	2,576