

## Using Read Encode Annotate and Ponder (REAP) Technique to Increase Reading Comprehension: A Case of the Eleventh Grade Students of SMA Negeri 6 Semarang

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### Abstract

This study is aimed for applying Read Encode Annotate and Ponder (REAP) technique for teaching reading comprehension. The objectives of the research are, (1) to find out the students' reading comprehension after being taught without using REAP technique. (2) to find out the students' reading comprehension after being taught by using REAP technique. (3) to know whether there is any significant difference of students' reading comprehension being taught by using REAP technique and without REAP technique. Following the study case the writer used quantitative research. The research design of this study is true experimental design. The sample is the eleventh grade students at SMA Negeri 6 Semarang. There are three classes used, they are the experimental class, control class and a class to be tried out. The writer used test to collect the data. The data was gained from the tests that were given to the students. The study found that the mean score for the class taught without REAP technique was 78.16 and the mean score for the class taught with using REAP technique was 92.05. The students' score that was taught by using REAP technique was better than students' score that taught without REAP technique. There was any significant difference between experimental group and control group, because the computation t-test was 7.5. So that  $t_{value}$  is higher than  $t_{table}$  because  $7.5 > 2.00$ . It means that  $H_a$  is acceptable and  $H_o$  is rejected. Based on the study, it can be concluded that using REAP technique to increase reading comprehension has positive influence to the students. So, English teachers have to use REAP technique to increase the students' reading comprehension.

**Keywords:** (REAP) technique, reading comprehension

### Introduction

English is a language used internationally and learned by people around the world. Many people in the world speak English as a first language, a second language, and a foreign language. It is used as a means of communication, both oral and written. Here, to communicate means to comprehend and convey information, thoughts and feelings by using English. Language is expected to

help students knowing themselves and others. English as a foreign language is needed not only in academic field but also in the development of science and technology, many work fields and life activities, such as in the process of getting knowledge, transferring information from the textbooks and mass media.

English is taught as a foreign language in Indonesia. As a foreign language, English is considered as one of

the difficult subjects for the students. There are four skills that should be mastered by the English learners, they are: listening, speaking, reading, and writing. Among those four skills, reading is one of the major skill that has the important role for students especially in increasing their knowledge and experience in learning language. Reading is also useful to support the process of teaching learning of the students. The aim of reading is making students get more information and knowledge. The students need to be exercised and trained in order to have a good reading skill.

Reading is useful for language acquisition. Provided that the students more or less understand what they read, the more they read, the better they get at it. Reading also has a positive effect on students' vocabulary knowledge, on their spelling and on their writing.

There are many ways in understanding the materials. For some students, they have already had their own ways to understand the reading material but some of them are still confused about the way how to understand the materials while reading, especially for those who are new in joining the English class.

Discussing appropriate technique (which is) important to attract students'

interest in learning reading, REAP is supposed to be an appropriate technique to teach reading comprehension.

Flippo (2000: 185) views that REAP technique suggests that students first read the text, encode, annotate, then ponder the text; annotations include summary notes, thesis notes, critical notes, and question notes.

Based on the explanation above, the writer intends to conduct a study dealing with "Using Read Encode Annotate and Ponder (REAP) Technique to Increase Reading Comprehension of the Eleventh Grade Students of SMA Negeri 6 Semarang In Academic Year 2014/2015"

The objectives of the study can be stated as follows:

1. To find out the students' reading comprehension who are taught without REAP technique.
2. To find out the students' reading comprehension who are taught with REAP technique.
3. To know whether there is any significant difference in reading comprehension between students who are taught without and with REAP technique.

## Review of Related Theories

### REAP (Read, Encode, Annotate and Ponder)

#### Definition of REAP

REAP is primarily a cognitive-enrichment approach that teaches students to think more precisely and deeply about they read. By following the four step strategy symbolized by its title:

R - Read : the first step is read to get the writer's basic message

E - Encode : the second step is to encode the message into your own words while reading

A - Annotate : the third step is to annotate your analysis of the message by writing responses from several perspectives

P - Ponder : the last step is to ponder what you have read and written-first by reviewing it yourself, then by sharing and discussing it with others, and finally by reading and discussing the responses of others.

[http://academic.cengage.com/resource../0534508294\\_22613](http://academic.cengage.com/resource../0534508294_22613)

REAP is a technique that develops independent reading skills by encouraging the reader to put the main idea of the passage into his/her own words, both orally and in written form. REAP technique is an annotation technique to

increase reading and writing skills. Annotating has several benefits. Besides making text more meaningful, annotating improves student attention while reading and makes reading a more active process. Annotation writing enhances information processing and, in turns, improves registration of information of memory. There is less information to remember when it has been summarized in an annotation, and annotations are written in students' own words. It makes the students easier to understand the materials, especially the reading material. Simply, the students can understand the reading material while they are reading it.

According to Flippo (2000:185), REAP is a complex elaborative study-reading strategy, taking notes from textbook, or when possible, making text annotations, is a popular strategy, particularly when used in combination with underlining.

When annotating the text, the student writes brief notes summarizing key ideas, listing ideas, noting relevant examples, making predictions, and underlying key words and phrases.

#### Purpose of Using REAP

The purpose of REAP is to give students a fresh way to think while reading to get message of the text. This strategy, with modeling and guided practice will help the students in increasing reading

comprehension. In short, REAP technique helps students to understand the reading materials since they read it.

<http://readingstrategiesp514.wikispaces.com/REAP>

### How to Use REAP

Using Read Encode Annotate and Ponder (REAP) technique is able to elaborate by following explanations:

1. Read and understand the author's ideas.

The students are provided a text and they have to read it, after they have read the text, have them discuss the concept of the text with partners, small groups, or in a whole class discussion.

2. Encode the author's words into their own words.

The students must put their own words what the passage says. They should be able to do this without having to reread the materials as they talk about it. They should become familiar enough with the text to discuss it comfortably.

3. Annotate what they are reading.

The students must prompt with these questions:

- a. What is the author's opinion on the subject? How can you tell?
- b. What is the problem being presented in the text? What are some possible solutions?

- c. What is the author's purpose or intention?

4. Pondering means that the students must think about what they have written. They are able to give conclusion by discussing and answering the questions.

<http://ejournal-s1.stkip-pgris-sumbar.ac.id/index.php/Inggris/article/view/285/277>

### Reading

#### Definition of reading

Reading is a language and communication process. It always involves an interaction between the writer and the reader. It is further explained that reading requires the communication of a message and it requires a language system in which message are formulated and encoded. Reading is a constantly developing skill. Like any skill, the readers get better at reading by practicing. And conversely, if the readers do not practice, they will not get better and their skill may deteriorate.

Johnson (2008: 3) stated that reading is the practice of using text to create meaning. The two key words here are creating and meaning. If there is no meaning being created, there is no reading taking place.

Reading integrates visual and non-visual information. During the act of

reading, the visual information found on the page combines with the non-visual information contained in someone's head to create meaning. In that way, what's in someone's head is just as important as what's on the page in the process of creating meaning.

According to Brown (2004:189) there are four types of reading performance, they are: perceptive, selective, interactive and extensive.

From the statement above, perceptive reading tasks involve attending to the components of large stretches of discourse: letters, words, punctuation, and other graphemic symbols. Bottom-up processing is implied. The selective reading performance is largely an artifact of assessment formats. In order to ascertain one's reading recognition of lexical, grammatical, or discourse features of language within a very short stretch of language, certain typical tasks are used: picture-cued task, matching, true/false, multiple-choice, etc. The interactive reading types are stretches of language of several paragraphs to one page or more in which the reader must interact with the text. This reading is a process of negotiating meaning; the reader brings to the text a set of schemata for understanding it, and in turn is the product of that interaction. Typical genres that lend themselves to interactive reading are

anecdote, short narratives and descriptions, excerpts from longer texts, questionnaires, memos, announcements, directions, recipes and the like. The extensive reading as longer stretches of discourse, such as long articles and books that are usually read outside a classroom hour. Here definition is massaged a little in order to encompass any text longer than a page.

While the skills needed for understanding the texts are: previewing, predicting, guessing from context, and paraphrasing.

#### 1. Previewing

Reviewing titles, section headings, and photo captions to get a sense of the structure and content of a reading selection.

#### 2. Predicting

Making predictions about content and vocabulary and check comprehension.

#### 3. Guessing from context

The ideas in the text as clues to the meanings of unknown words, instead of stopping to look them up.

#### 4. Paraphrasing

Stopping at the end of a section to check comprehension by restating the information and ideas in the text.

<http://www.nelrc.org/essentials/reading/stratread.html>

Reading skill is very important for students. It is one of the difficult skills in English subject in their school. Reading is

a various process that develops only with practice. There are certain aspects of reading, such as fluency and word recognition, which can be learned in a few years. These basics must be mastered but at the same time reading comprehension should be emphasized in the process.

According to Snow (2002: 11), reading comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language.

The words *extracting* and *constructing* are to emphasize both the importance and the insufficiency of the text as a determinant of reading comprehension. In the same page, Snow also states that comprehension needs three elements, they are: reader, text, and activity. The reader means someone who is doing the comprehending. The text that is to be comprehended, and the activity in which comprehension is a part.

### **Genre of Text**

According to Hyland (2004:4), genre is a term for grouping texts together, representing how writers typically use language to respond in recurring situation. A text genre is a type of written or spoken discourse. Texts are classified into genres on the basis of the intent of the communicator.

## **1. Report Text**

### **Definition of Report Text**

According to Hyland (2004: 29), report text is one of genre texts that has social purpose to present factual information, usually by classifying things and then describing their characteristics, for example brochures, government and business report.

Genre can also be described in terms of the stage that a text moves through to express the writer's purpose. Report text has the steps. They are problem, reason, conclusion and recommendation (Hyland, 2004: 33).

The problem step means that indentifies a problem. The reason can give possible reason for or consequences of the problem. The conclusion makes suggestion for solving the problem. The recommendation presents measures to be adopted as a result of the report.

### **Social function of Report Text**

The social function of the report is to present factual information, usually by classifying things and then describing their characteristics. (Hyland, 2004: 29)

While the other source said that the social function of the report text is convey information text observations and systematic analysis.

<http://www.englishindo.com/2012/03/report-text-html>

The information described in the report text is usually general in nature, be

it natural or artificial like a mammals, planets, rocks, plants, state, cultural, transportation, etc.

### **Generic Structure of Report Text**

The generic structures of report text are as follows:

1. General Classification: statements that describe the common subject of the report, common description, and classification.
2. Description: tells what the phenomenon under discussion; in terms of parts, qualities, habits or behaviors; This section gives us an overview of commonly occurring phenomenon, either of its parts, its properties, habit, or behavior. The point is, presenting elaboration of scientific classification.

<http://www.englishindo.com/2012/03/report-text-html>

### **Language Feature of Report text**

Report text has language features are as follows:

1. Use of general nouns: that is, an object (be it alive or dead) of a general nature.
2. Use of relating verbs to describe features, the grammar is also called linking verbs. As to be [is, am, are: present], seem, look, taste, etc.
3. Some use of action verbs when describing behavior.

4. Use of timeless present tense to indicate usualness, is one time in the simple present markers such as "often, Usually, always" and others.

5. Use of technical terms.

6. Use of paragraphs with topic sentences to organise bundles of information; repeated naming of the topic as the beginning focus of the clause.

<http://www.englishindo.com/2012/03/report-text-html>

### **Example of Report Text**

#### **Black Bears**

Black bears are the smallest of all America bears. Black bears appear in variety of colours despite their name. In the eastern part of their range, most of these bears have shiny black fur, but in the west they grow brown, red, or even yellow coats. To the north, the black bear is actually gray or white in colour. Even in the same litter, both brown and black furred bears may be born.

These animals range in the length from five to six feet, weighting from three hundred to five hundred ponds. Their eyes and ears are small and their eyesight and hearing are not as good as their sense of smell.

Like all bears, the black bear is timid, clumsy, and rarely dangerous, but if attacked, most can climb trees and cover

ground at great speeds. It is a formidable enemy when it's angry or frightened.

Black bears feed leaves, herbs, roots, fruits, and berries, insects, fish, and even large animal. One of the most interesting characteristics of bears, including the black bears, is their winter sleep. Unlike squirrels, woodchucks, and many other woodland animals, bears do not actually hibernate. Although the bear does not eat during in the winter month, sustaining itself from body fat, its temperature remains almost normal, and it breathes regularly four or five times in a minutes.

Most black bears live alone, except during mating season. They prefer to live in caves, hollow logs, or dense thickets. A litter of one to four cubs is born in January or February after a gestation period of six to nine months, and they remain with their mother until they are fully grown or about one and a half years old. Black bears can live as thirty years in the wild, even longer in the game preserves set aside for them. (Encarta Encyclopedia 2008)

### **REAP to Teach Reading**

There are many reasons why getting students to read English texts is an important part of teachers' job. Being a good teacher of reading starts with an understanding of what reading is. One of the important basic skills which are taught in English is reading skill. In reading,

students learn through catching the information, growing their critical thinking, remembering their background knowledge, and getting the new knowledge from the passage they have read. Every level of students has different ability in reading. Elementary school students are supposed to understand the sentences. Then in high school they are hoped to understand about the text or a passage.

In this session, the writer uses the REAP technique as a various technique in teaching reading. REAP is an acronym stand for *Read, Encode, Annotate, and Ponder*. In REAP technique, the students learn to take the content of the text by four steps. The first one is reading whole text, may be one or two times, in order to get information about the writer's basic message. The second step is encoding the author's ideas into their own words. The students are able to encode the message into their own words while reading a text. The next step is annotate, in this step, the students take a note about what the ideas in a piece of a paper. The note that they take should in their own language, those ideas in writing for oneself or for sharing with others. The last step is pondering the annotation. In this step the students pondering or make the consideration or conclusion about what they have made in their annotation. The pondering activities



can be done by thinking by themselves, or talking and discussing with the members of the group to answer the questions about the text.

<http://ejournal-s1.stkip-pgri-sumbar.ac.id/index.php/Inggris/article/view/285/277>

REAP technique can be used in reading in many kind of texts such as narrative, report, descriptive, exposition, etc. In this research, the writer only explains how to use REAP technique in teaching report text. Here by using REAP reading technique, the readers do not need to understand all of the meaning of every word in the report text. In REAP technique, the students can use their own language in taking the content of report text. In using REAP technique the writer can lead the students to comprehend the report text easily. The report text has a generic structure, commonly the generic structure is: general classification and description.

As there are four steps in REAP technique, stated in one of steps that being in some groups helps students to make easy in understanding the report text that they will do by using REAP reading technique. After that the writer explains to the students about REAP technique in this reading season, they will use the REAP technique. Before the learning process begins, the explanation about the

technique has purpose to avoid the confusion of students while doing the activity.

After explaining how to use REAP technique, the writer shows the table where the students can put what they have got in the steps as follows:

Table 1. Steps of REAP

<p>R: Reading Title of the text</p>	<p>E: Encoding - Main ideas - Difficult vocabularies = synonyms</p>
<p>A: Annotating - General classification - Description</p>	<p>P: Pondering - Questions to be discussed with group - Summary or conclusion</p>

The reading process is important to improve their language and understand texts. Reading carefully can also aid comprehension about information in detail. Some texts, such as instructions, need to be read in details throughout.

Further, Brown (2001: 308) adds that there are some techniques for reading

comprehension which can be practically applied to classroom, such as:

1. Skim

Skimming consists of quickly running one's eyes across a whole text (such as an essay, article, or chapter) for its gist.

2. Scan

Scanning is quickly searching for some particular piece or pieces of information in a text.

In this case, the writer uses REAP technique for teaching reading comprehension, and the particular text the writer uses is report text.

### Previous Study

In this case the writer tried to get references before starting this study. The writer read another final project dealing the topic of this study. The writer read the final paper of Sulisty Windarsih (The Use of Reading, Encoding, Annotating and Pondering Technique to Improve Reading Comprehension of the Eighth Grade Students of SMPN 1 Kalinyamatan Jepara) that has purpose to analyze the implementation of REAP technique. The subjects of this study is the eighth grade students of SMPN 1 Kalinyamatan Jepara. She did an experimental research. She took

2 classes as sample, the VIII B as the control class and VIII A as the experimental class. She used posttest only control group design in which it just used posttest for the experimental and control groups. The hypothesis stated that there was significant difference between the reading comprehension of the eighth grade students of SMPN 1 Kalinyamatan Jepara taught by using Reading, Encoding, Annotating, and Pondering (REAP) technique.

The writer also read a journal entitled *The R.E.A.P Strategy for Teaching Reading a Narrative Text to Junior High School Students* by Jesi Putri Marantika. She investigates the implementation of REAP strategy to motivate the students in reading.

The result of her research is REAP strategy can be used as alternative strategy in teaching reading, especially in teaching reading texts. She states that REAP strategy make the students feel that in reading a text, they do not have to understand the vocabulary one by one in the text. Besides that REAP strategy also develop students' ability to write the annotation about the main idea of a text.

In addition, REAP technique can expand students' critical thinking through the ponder activity that can be done by thinking, talking, and discussing. REAP makes the students think more than what

they usually do. They have to find the meaning in the dictionary by themselves. They do not only listen to the teacher's explanation, they also have to discuss it with their group. In discussion, of course they have to share their opinions. By sharing opinion, they are required to think critically.

Based on the references above, the writers did the research which the subject is Junior High School students by implementing the REAP technique to recount text and narrative text. On the other hand, in this study, the writer implements the REAP technique in the different level which is Senior High School student and the text used is report text. The writer wants to know if the result will be the same that there is still significant difference between the student's reading comprehension taught without REAP technique and the students' reading comprehension taught with using REAP technique.

### **Research Hypothesis**

Research hypothesis is a predictive statement, capable of being tested by scientific method that relates an independent variable to some dependent variable (Kothari, 2004: 184).

In this study, there are two hypothesis which are used to answer statically at this study. Based on the

explanation above, the writer draws hypothesis stated as follows:

$H_i$ : There is significant difference in reading comprehension of the students who are taught by using REAP technique and students who are taught without REAP technique.

$H_0$ : There is no significant difference in reading comprehension of the students who are taught by using REAP technique and students who are taught without REAP technique.

### **RESEARCH METHOD**

A writer needed an accurate methods and designs to conduct a research. In the process of writing the research, the writer used an experimental design. In this case, the writer used true experimental design. Creswell (2008: 159) states that true experiment is the investigator randomly assigns the participants to treatment groups.

In the experimental research, the researcher divides the cases in the sample into different groups and then compares the groups on one or more variables of interest (Urdan, 2010: 4).

Meanwhile, there are two kinds of research methods. They are qualitative research and quantitative research. In this study, the writer used quantitative research in order to get required data. Kothari (2004: 3) views that quantitative research

is based on measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity.

In this research, the writer took two classes. One of the classes was used as control group and another class as experiment group for the research.

The experimental class was taught by using Read Encode Annotate and Ponder (REAP) technique, on the other hand, the control class was taught without using Read Encode Annotate and Ponder (REAP) technique. It is based on the writer's purpose that she wanted to know the difference between the class being taught by using Read Encode Annotate and Ponder (REAP) technique and the class being taught without using Read Encode Annotate and Ponder (REAP) technique.

The writer applied quantitative research with the true experiment research as it is stated by Creswell (2008: 159) that in a true experiment, the investigators randomly assigns the participants to treatment groups.

In this case, the writer used cluster sampling. In cluster sampling the total population is divided into a number of relatively small subdivisions which are themselves clusters of still smaller units and then some of these clusters are randomly selected for inclusion in the overall sample (Kothari, 2004: 65).

The writer chose two classes as samples. Those two classes were considered equal. One of the classes was experimental class and another was the control class.

In this case, the writer chose a test as the instrument of the research in getting the data. According to Brown (2004: 3), a test is a method of measuring a person's ability, knowledge, or performance in a given domain.

The test is used to measure the students' ability in reading comprehension before and after being taught by using REAP technique. The test the writer used was in the form of multiple choice test. The students chose one correct answer by crossing (X) A, B, C, D or E.

A good instrument must require four important thing, they are validity, reliability, level of difficulty and discriminating power. So, the instrument would be tried out first to measure the validity, reliability, level of difficulty and discriminating power of the test.

In getting the data, the writer conducted treatment to the students in the experimental class, and then, the writer gave post test to the students in both control group and experimental class.

After collecting the data, the writer analyzed the data in order to know the result of the experiment. It is a very important part of the research because it

was used to take the conclusion of the research. The writer used statistical method in analyzing the data which have been collected through the test.

The writer did the following steps :

1. Preparing

The writer prepared the data which had been collected. She checked the name, and the amount of the data.

2. Scoring

After the writer got the result of the post-test both from control and experimental groups, the writer needed to score the test. The writer gave 1 for the correct answer and 0 for the wrong answer. Then, the writer used the formula below to get the score:

$$\text{Score} = \frac{\text{Right answer} \times 20}{3}$$

3. Finding the t-test

a. The researcher made a table of the result from each group

b. The researcher calculated the mean of each group

1) Control group

$$M_x = \frac{\sum x}{N}$$

Where  $M_x$  = mean of the control group

$\sum x$  = sum of scores in a distribution of control group

$x$  = score in a distribution of control group

$N$  = number of scores

2) Experimental group

$$M_y = \frac{\sum y}{N}$$

Where  $M_y$  = mean of the experimental group

$\sum y$  = sum of scores in a distribution of Experimental group

$y$  = score in a distribution of experimental group

$N$  = number of scores

c. The researcher calculated the standard deviation of each group

a) Standard deviation of control group

$$\sigma_{s1} = \sqrt{\frac{\sum (x_1 - \bar{x}_1)^2}{N_1 - 1}}$$

b) Standard deviation of experimental group

$$\sigma_{s2} = \sqrt{\frac{\sum (x_2 - \bar{x}_2)^2}{N_2 - 1}}$$

d. The researcher calculated the sum of standard error of each group

1) Standard error of control group

$$S_{\bar{x}_1} = \frac{\sigma_{s1}}{\sqrt{N_1}}$$

2) Standard error of experimental group

$$S_{\bar{x}_2} = \frac{\sigma_{s2}}{\sqrt{N_2}}$$

3) The mean difference between the control group and experimental group

$$S_{\bar{x}_1 - \bar{x}_2} = \sqrt{S_{\bar{x}_1}^2 + S_{\bar{x}_2}^2}$$

- e. The researcher applied the formula into *t-test*

$t =$

$\frac{\text{Observed difference between sample mean}}{\text{standard error of the difference between the means}}$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S_{\bar{x}_1 - \bar{x}_2}}$$

$t$  = the number of *t-test* (*t-value*)

$\bar{X}_1$  = the means of control group

$\bar{X}_2$  = the means of experimental group

$S_{\bar{x}_1 - \bar{x}_2}$  = standard error of each group

(Urdu, 2005:95)

- f. The researcher gave interpretation of *t-value* with *t-table*

- 1) If the *t-value* > *t-table*, it means that the obtained value is bigger than the table value at the level of significance 5%, so null hypothesis ( $H_0$ ) is rejected and the working hypothesis ( $H_a$ ) is accepted.
- 2) If the *t-value* > *t-table*, it means that the obtained value is higher than the table value at the level of significance 5%, so null hypothesis ( $H_0$ ) is rejected and the working hypothesis ( $H_a$ ) is accepted.

- g. The researcher concluded the conclusion based on the interpretation of *t-value* with *t-table*.

## FINDINGS AND DISCUSSION

### Research Findings

#### 1. Reading comprehension of students taught without using Read Encode Annotate and Ponder (REAP) Technique

The research subjects were thirty seven students of XI MIA7. They were placed as control class. They taught by the researcher without Read Encode Annotate and Ponder (REAP) technique. The researcher taught report text to this class without giving Read Encode Annotate and Ponder (REAP) technique.

At first, the researcher greeted the students. She introduced herself to the students. She checked the roll and asked the leader of the class to lead the students in the control class to pray. The researcher asked some questions before she taught them report text. She asked what texts they have learned. She also asked the purpose, the generic structure and the language feature of each text. Then she gave them the example of report texts. She did not recognize them with Read Encode Annotate and Ponder

(REAP) technique. She explained about the report texts conventionally. After explaining the material, she gave the students exercises to do dealing with report text.

In the end of the learning process, the researcher gave post test. It was to measure the result of the learning process. The researcher wanted to know the students' comprehension in reading report text after being taught without using Read Encode Annotate and Ponder (REAP) technique. Next, the researcher scored the result of the post test of each student.

**Table 2. The score of the post-test of control group**

Numb	Name	Score
1	C-1	80
2	C-2	80
3	C-3	80
4	C-4	66.6
5	C-5	80
6	C-6	80
7	C-7	86.6
8	C-8	66.6
9	C-9	73.3
10	C-10	66.6
11	C-11	80
12	C-12	86.6
13	C-13	86.6

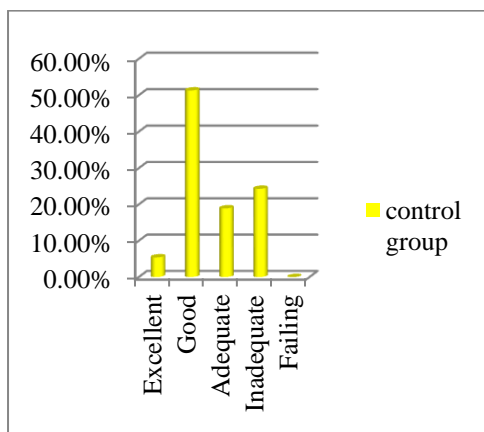
14	C-14	73.3
15	C-15	80
16	C-16	66.6
17	C-17	86.6
18	C-18	73.3
19	C-19	66.6
20	C-20	86.6
21	C-21	86.6
22	C-22	86.6
23	C-23	73.3
24	C-24	66.6
25	C-25	100
26	C-26	80
27	C-27	73.3
28	C-28	66.6
29	C-29	80
30	C-30	73.3
31	C-31	66.6
32	C-32	86.6
33	C-33	93.3
34	C-34	86.6
35	C-35	66.6
36	C-36	73.3
37	C-37	86.6
<b>N</b>	37	2891.8
Mean		78.16

The researcher calculated the mean score of the control group as follows:

$$M_x = \frac{\sum x}{N} = \frac{2891.8}{37}$$

$$= 78.16$$

The result of the calculation is also shown by the following diagram:



**Figure 1. Percentage of the Students' Scoring Categories for Control Group in the Form of Diagram**

In Figure 4.1, it shows that 5.4% students are excellent, 51.3% are good, 18.9% students are adequate, 24.3 % students are inadequate and 0% students belong to failing in reading comprehension in report text. Those are based on the result of the measurement of the students' achievement.

Based on the calculation of the mean score, it shows that the mean score of control group is 78.16 and it belongs to the adequate criteria. It means that the students' reading comprehension in report text taught without Read Encode Annotate and Ponder (REAP) technique is adequate.

## 2. Reading comprehension of students taught with using Read Encode Annotate and Ponder (REAP) Technique

The research subjects were thirty seven students from XI MIA 5. They were placed as experimental class. They were being taught by using Read Encode Annotate and Ponder (REAP) technique.

At first, the researcher gave clues to the students by asking questions related to the texts. The researcher asked genre of texts. The students mentioned the kind of texts. Then, the researcher led them to identify the report text.

Second, the researcher spread out the hand out to the students which contained about the reading technique that is Read Encode Annotate and Ponder (REAP), the material about report text, the example of report texts and it's exercise. The researcher explained about the technique. After explaining, she asked some of the students to read report text loudly. She asked them to do the exercise.

Third, the researcher asked the students to make group in pairs. Then they had to answer some questions by group based on the technique explained. They had to read the text to know the author's idea, then they had



to encode the difficult words they found and they had to annotate them, after that they had to find out the meaning. They could write their answers on the white board after they got it. The answers could be discussed by the whole class. Then, the researcher gave the post test which was in the form of multiple choices. It contained 15 questions which had fulfilled the criteria of validity, reliability, level of difficulties and discriminating power chosen from the try out test. At last, the researcher asked the students to hand in the tests after they had finished answering it. Finally, the researcher said thanks and good bye to the students of XI MIA 5, SMA Negeri 6 Semarang.

**Table 3. The score of the post-test of experimental group**

<b>Numb</b>	<b>Name</b>	<b>Score</b>
1	E-1	100
2	E-2	93.3
3	E-3	100
4	E-4	100
5	E-5	100
6	E-6	93.3
7	E-7	86.6
8	E-8	80
9	E-9	100
10	E-10	100

11	E-11	93.3
12	E-12	80
13	E-13	86.6
14	E-14	86.6
15	E-15	100
16	E-16	93.3
17	E-17	80
18	E-18	100
19	E-19	100
20	E-20	93.3
21	E-21	93.3
22	E-22	80
23	E-23	86.6
24	E-24	93.3
25	E-25	100
26	E-26	86.6
27	E-27	80
28	E-28	93.3
29	E-29	100
30	E-30	93.3
31	E-31	86.6
32	E-32	86.6
33	E-33	86.6
34	E-34	93.3
35	E-25	100
36	E-36	86.6
37	E-37	93.3
<b>N</b>	<b>37</b>	<b>3405.7</b>
<b>Mean</b>		<b>92.05</b>

The researcher calculated the mean score of the experimental group as follows:

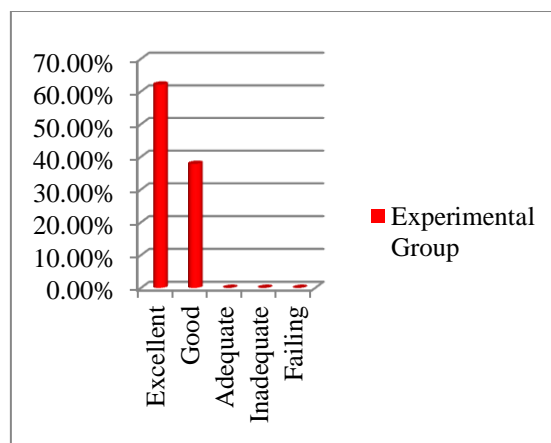
$$\begin{aligned}
 M_y &= \frac{\sum y}{N} \\
 &= \frac{3405.7}{37} \\
 &= 92.05
 \end{aligned}$$

After calculating the data, the researcher calculated the percentage of the scores. The result can be seen on the following table:

**Table 4. Percentage of the Students' Scoring Categories for Experimental Group**

Score	Letter Grade	Criteria	Number of Students	Percentage
90-100	A	Excellent	23	62.1%
80-89	B	Good	14	37.8%
70-79	C	Adequate	0	0%
60-69	D	Inadequate	0	0%
<60	E	Failing	0	0%

The result of the calculation is also shown by the following diagram:



**Figure 2. Percentage of the Students' Scoring Categories for Experimental Group in the Form of Diagram**

The Figure 4.2 shows that 62.1% students are excellent, 37.8% are good, 0% students are adequate, 0% students are inadequate and 0% students are failing in reading comprehension in report text. Those are based on the result of the measurement of the students' achievement.

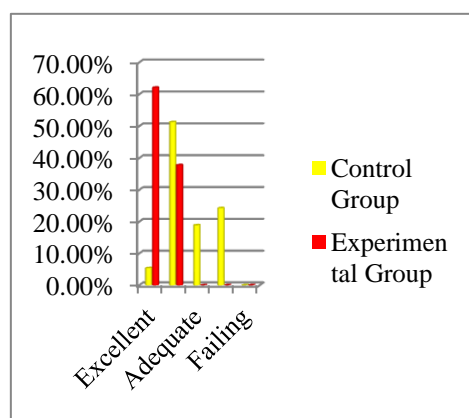
Based on the result calculation of the Mean score, it shows that the mean score of experimental group is 92.05 which belongs to excellent criteria. It means that the reading comprehension in report text after being taught with Read Encode Annotate and Ponder (REAP) is good.

**3. The significant difference of the reading comprehension of the students taught without and with**

### using Read Encode Annotate and Ponder (REAP) technique

Based on the calculated data of the control group and experimental group, it showed that using Read Encode Annotate and Ponder (REAP) technique to increase reading comprehension in experimental class has very significant progress. It can be indicated that the Read Encode Annotate and Ponder (REAP) technique was very effective than Conventional Method, because that technique gives students the various way to make them easier to understand the text.

The result of the calculation is also shown in the form of diagram as follows:



**Figure 3. Histogram of the Difference of the Students' Scoring Criteria Results of Control Group and Experimental Group**

Figure 3 shows the percentage of control group and experimental group. It is told that the ranges of

score criteria of the two groups are excellent, good, adequate, inadequate, and failing. In the control group, it shows that the percentage of the students who are excellent is only 5.4% or 2 students among 37 students. On the other hand, in the experimental group, it shows that the percentage of the students who are excellent reaches 62.1% or 23 students among 37 students. The highest percentage of the control group is 51.3% or 19 among 37 students in the good criteria. In experimental group, the highest percentage is 62.1% (23 students among 37 students) in excellent criteria. The percentage of the data shows that reading comprehension in the experimental group is better than reading comprehension in the control group. Moreover, there is no student belongs to failing level in the both of control and experimental group.

It is found that the mean score of control group was 78.16, the mean score of experimental group was 92.05 with the total number of the students (N) 74. The researcher calculates the data by using t-test formula to know the significant difference between the control group who taught without Read Encode Annotate and Ponder (REAP)

technique and the experimental group who taught with Read Encode Annotate and Ponder (REAP) technique. Therefore, it still had to be proved using t-test.

The following steps are to calculate the t-test by using statistical formula, finding out :

Standard deviation of control group

$$\begin{aligned}\sigma_{s1} &= \sqrt{\frac{\sum(x_1 - \bar{x}_1)^2}{N_1 - 1}} \\ &= \sqrt{\frac{2817.05}{37 - 1}} \\ &= \sqrt{\frac{2817.05}{36}} \\ &= \sqrt{78.25} \\ &= 8.84\end{aligned}$$

Standard deviation of experimental group

$$\begin{aligned}\sigma_{s2} &= \sqrt{\frac{\sum(x_2 - \bar{x}_2)^2}{N_2 - 1}} \\ &= \sqrt{\frac{1768.95}{37 - 1}} \\ &= \sqrt{\frac{1768.95}{36}} \\ &= \sqrt{49.13} \\ &= 7.00\end{aligned}$$

Standard error of control group

$$\begin{aligned}S_{\bar{x}_1} &= \frac{\sigma_{s1}}{\sqrt{N_1}} \\ &= \frac{8.84}{\sqrt{37}} \\ &= \frac{8.84}{6.08} \\ &= 1.45\end{aligned}$$

Standard error of experimental group

$$S_{\bar{x}_2} = \frac{\sigma_{s2}}{\sqrt{N_2}}$$

$$\begin{aligned}&= \frac{7.00}{\sqrt{37}} \\ &= \frac{7.00}{6.08} \\ &= 1.15\end{aligned}$$

Mean difference between the control group and experimental group

$$\begin{aligned}S_{\bar{x}_1 - \bar{x}_2} &= \sqrt{S_{\bar{x}_1}^2 + S_{\bar{x}_2}^2} \\ &= \\ &= \sqrt{(1.45)^2 + (1.15)^2} \\ &= \sqrt{2.10 + 1.32} \\ &= \sqrt{3.42} \\ &= 1.85\end{aligned}$$

T-test or  $t_o$

$$\begin{aligned}t &= \frac{\bar{X}_1 - \bar{X}_2}{S_{\bar{x}_1 - \bar{x}_2}} \\ &= \frac{78.16 - 92.05}{1.85} \\ &= \frac{13.89}{1.85} \\ &= 7.5\end{aligned}$$

The value of t-test was calculated (7.5) > t-table (2.00). If t-test > t-table,  $H_a$  was accepted and  $H_0$  was rejected. It can be concluded that there is a significant difference of students reading comprehension taught without and with using Read Encode Annotate and Ponder (REAP) technique which is proved that t-test was acceptable and there is an improvement on students' reading comprehension after given the treatment.

## CONCLUSION

Based on the data analysis and discussion in previous chapter, the writer drew conclusions as follows.

1. Students' reading comprehension taught without Read Encode Annotate and Ponder (REAP) technique shows that the average score of the post-test is in adequate category. It is showed by the score 78.16.
2. Students' reading comprehension that taught with Read Encode Annotate and Ponder (REAP) technique shows that the average score of the post-test is in good category with the score 92.61. It means that the result of the experimental group is better than the control group or it can be stated that the use of Read Encode Annotate and Ponder (REAP) technique is better than without using Read Encode Annotate and Ponder (REAP) technique (conventional method).
3. There is a significant difference of the students' reading comprehension taught with Read Encode Annotate and Ponder (REAP) technique and without Read Encode Annotate and Ponder (REAP) technique. The t-test result is 7.5 with 5% significant level, the t-table is 2.00. It is stated that  $t_o > t\text{-table}$  or  $7.5 > 2.00$ . It means that the t-value was higher than the t-table in statistically. It could say that there is a

significant difference of the students' reading comprehension taught with Read Encode Annotate and Ponder (REAP) technique and without Read Encode Annotate and Ponder (REAP) technique.

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