
#### Abstract

Dasrini, 2016. The Effectiveness of P2R (Preview, Read, Review) Strategy Toward Students' Comprehension in Reading Skill of the Tenth Grade Students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016. A thesis, English Department Faculty of Education State Islamic College of Ponorogo (STAIN Ponorogo). Advisor Winantu Kurnianingtyas Sri Agung., S.S, M.Hum.


Key Word: P2R (Preview, Read, and Review) Strategy, Students’ Comprehension, Reading Skill.

Reading is very important for advanced level students to comprehend the meaning of text, because reading would give them knowledge, information, and indirect experience. But in fact, it is difficult for students to comprehend the meaning of text. P2R strategy consideres to give the students' reading comprehension. The purpose of this research is to measure the students' reading comprehension who are taught using P2R (Preview, Read, and Review) strategy and students' reading comprehension who are taught without using P2R (Preview, Read, Review) strategy of the tenth grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016.

This research was designed quantitative research. This study used quasi experiment design for finding effectiveness of P2R (Preview, Read, and Review) strategy toward Students' Comprehension in Reading Skill of the Tenth Grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016. This study assigned two classes, they were 26 students of X A as an experiment class who are taught by using P2R strategy and 26 students of X B as a control class who are taught without using P2R strategy. The procedures of data collection were pre test, post test, and documentation. To measure that tests the researcher was used validity test with Product Moment formula and reliability test with $\mathrm{KR}_{20}$ formula and the calculation was 0,940 . To analyze that tests the researcher used normality test, homogeneity test and t-test formula to know whether there was significant difference on students' reading comprehension who are taught by using P2R strategy and students who are taught without using P2R strategy.

The result of this study showed that the average of pre test for control class was 72,89 and the average of post test was 73,35 . After computed the $t_{0}$ test that was 0,13 . The average of pre test from experiment class was 74,89 and the average of post test was 78,54 . After got treatment showed that $t_{0}=2,85$. It was found that the mean of experiment class was higher than the mean of control class. After being consulted with $5 \%$ significance level with $\mathrm{db}=50$, that was $\mathrm{t}_{\mathrm{t}}=2,01$. So, $t_{0} \geq t_{t}$. For the $1 \%$ signification $t_{0}=2,85$ and $t_{t}=2,68$, so $t_{0} \geq t_{t}$. $H$ meant that $\mathrm{Ha}=$ accepted $\mathrm{Ho}=$ rejected.

The researcher concludes that, P2R strategy is effective for teaching reading comprehension of the tenth grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016.

## CHAPTER 1

## INTRODUCTION

## A. Background of The Study

Reading is one of many ways to get information and get knowledge. Reading is one of the most uniquely human and complex of all cognitive activities. ${ }^{1}$ Caroline said, reading is a set of skill that involves making sense and deriving meaning from the printed word. ${ }^{2}$ Based on David Nunan, reading is a fluent process of readers combining information from a text and their own background knowledge to build meaning. ${ }^{3}$ Based on the explanations above, those can be concluded reading is a activities of people to get some information or meaning from a text.

Reading is very important for advanced level students is mastering reading skill, because reading would give them knowledge, information, and indirect experience. Reading is an essential skill for learners of English as a second language. For most of these learners, it is the most important skill to mastered in order to ensure success not only in learning English, but also in learning in any content class where reading English is required. In short, with the strengthened reading skill, learners will make greater progress and development in all order areas of learning. ${ }^{4}$

[^0]Meaning, learning, and pleasure are the ultimate goals of learning to read. Although fundamental skills such as phonics and fluency are important building blocks of reading, reading comprehension is the "sine qua non of reading". Knowing how to read words has ultimately little value if the student is unable to construct meaning from text. Ultimately, reading comprehension is the process of constructing meaning by coordinating a number of complex processes that include word reading, word and world knowledge, and fluency. ${ }^{5}$ Based on the explanation above, this can be concluded the goal of reading are the reader gets knowledge, define general idea and catch the information from text.

Indonesian students often consider reading as a difficult language skill to learn. They have difficulties in comprehending reading text. View of reading comprehension as a process of relating the new to the known is based on a similar nation. ${ }^{6}$ In Kristins' book, Samuels says "In order to comprehend a text, one must identify the words on the page and one must construct their meaning", ${ }^{7}$ If readers can read the words, but they do not understand the meaning of what they are reading, they are not really reading. ${ }^{8}$ According to the statement above it means that to comprehend a text, the reader must be able to identify the word, so the reader will be easy to catch the meaning from a text. But, in fact there are some students who

[^1]do not know the meaning of text at all. In other hand, they have difficulties to understand of general idea, to identify main idea, explicitly and implicitly stated information, certain word reference. The difficulties in reading comprehension can be seen from their mistakes when teacher asks them some questions related to reading subject and they are difficult in identifying general idea of the text.

The phenomenon of difficulties in reading skill has also been experienced by English students of SMA Pemberdayaan Bangsa Ngrayun. Based on my observation on Friday, 10 March 2016 at tenth grade students of SMA Pemberdayaan Bangsa Ngrayun, they have problems related to their reading comprehension. The researcher has found many students have difficulties to get the massage of the text including determining the main ideas or deciding the topic of the text and identifying lexical meaning from the text. They also have difficulties to recognize implicit meaning and attitude. Some problems above makes them difficult to comprehend English text. Therefore, their reading score result is low.

In fact, there are many students who are bored in learning English especially in reading an English text because it is not easy for them tounderstand the text because of some factors such teacher experience, then method, and strategy which is used in teaching English, especially in Reading. In two classes, the teacher still used "Direct Instruction Method" in reading activity. In this method the teacher becomes teacher center and teacher makes decision in learning. Then the students just become the
followers and depend on the teacher during teaching-learning process. Usually, the teacher asks the students to read the text, to find the difficult word used dictionary, and then the students do exercises by answering the questions based on the text. These activities make the students bored in teaching learning process, especially in reading.

To respond this condition, the researcher tries to use P2R (Preview, Read actively, and Review) strategy. P2R (preview, Read, and Review) strategy is designed for textbooks that are from easy to average level in difficulty. Use P2R on the entire chapter or on ten page chunks. First, preview the entire chapter. Next, read actively by highlighting or taking notes as you read. Finally, review using an active strategy such as reciting, answering review question, writing questions in the margin. If you are still just sitting back and just reading over your text chapter, give P2R a try. ${ }^{9}$ From the strategy above the students read a book or English text with step by step.

From the explanation above, the researcher is interested in conducting an experimental research entitled: "The Effectiveness of P2R (Preview, Read, Review) Strategy Toward Students’ Comprehension in Reading Skill of The Tenth Grade Students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016".

[^2]
## B. Limitation of the Study

The researcher limits her research on the effectiveness of P2R (Preview, Read, Review) Strategy Toward Students’ Comprehension in Reading Skill of the Tenth Grade Students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016 to avoid a far discussion.
C. Statement of the Problem

Do the students who are taught by using P2R (Preview, Read, and Review) Strategy have better Reading Comprehension than those are taught without using P2R (Preview, Read, and Review) Strategy of the Tenth Grade Students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016?

## D. Objective of the Study

To measure the effectiveness of students' reading comprehension in reading skill who are taught by using P2R (Preview, Read, and Review) strategy and students' reading comprehension in reading skill who are taught without using P2R (Preview, Read, Review) strategy of the tenth grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic Year 2015/2016.

## E. Significances of the Study

## 1. Theoretical Significance

The result of this research is expected to add the references of increasing students' comprehension using P2R (Preview, Read, Review) Strategy in reading skill. It can developing education quality especially for English lesson.

## 2. Practical Significance

a. Students

For the students, the research could help them to more reading interest by using a new strategy.
b. Teacher

For the teacher, the research could help them to increas students comprehension by using P2R (Preview, Read, Review) strategy in their reading skill.
c. Readers

This study is expected to give contribution to readers, especially the students of English Department of STAIN Ponorogo.

## F. Organization of the Thesis

The researcher organizes this thesis into some parts. The organization in this thesis is described below:

Chapter I in this thesis is Introduction. It contains of Background of the Study, Limitation of the Problem, Statement of the Problems, Objective of the Study, and Organization of the Thesis.

Chapter II is Review of Related Literature. This chapter is explained about Theoretical Analysis, Previous Research Finding, Theoretical Framework, and Hypothesis.

Chapter III is Research Methodology. This chapter is explained about Research Design, Population and Sample, Technique of Data Collection, Instrument of Data Collection, Technique of Data Analysis.

Chapter IV is Research Result. Research result consists of Data description, Data Analysis, and Discussion.

Chapter V is Closing. This chapter consists of Conclusion and Recommendations.


## CHAPTER II

## REVIEW OF RELATED LITERATURE

## A. Theoretical Background

In this chapter, the researcher presents review of literature is used in this study. The reviews of literature have a purpose to give information that concerned with this research problem; they are reading comprehension and P2R (Preview, Read, and Review) strategy.

## 1. Reading Comprehension

## a. Definition

Reading is one of the most uniquely human and complex of all cognitive activities. ${ }^{10}$ Caroline say, reading is a set of skill that involves making sense and deriving meaning from the printed word. ${ }^{11}$ Reading is the complex communicative behavior of deriving meaning from presented text. ${ }^{12}$ Reading has been defined in many ways since it first became the object of intense educational and psychological research at the turn of the century. ${ }^{13}$

Based on David Nunan, reading is a fluent process of readers combining information from a text and their own background knowledge to build meaning. The goal of reading is

[^3]comprehension. ${ }^{14}$ Based on the explanations above, those can be concluded reading is an activities of people to can get some information or meaning from a text.

National Reading Panel's in Elaine says, three important ideas emerged from the examination of the research on comprehension: 1) Reading comprehension is a cognitive process that integrates complex skills and cannot be understood without examining the critical role of vocabulary learning and instruction and its development; 2) active interactive strategies processes are critically necessary to the development of reading comprehension; 3) the preparation of teachers to best equip them to facilitate these complex processes is critical and intimately tied to the development of reading comprehension. ${ }^{15}$

Durkin in Elaine, reading comprehension is "intentional thinking during which meaning is constructed through interactions between text and reader". Comprehension is something that happens in the mind of the reader and concerns not only what is in the text but also the experiences and prior knowledge a reader brings to the text. ${ }^{16}$

[^4]Based on the explanations above, those can be concluded reading comprehension is a cognitive process of the reader to get meaning from a text.

## b. Teaching Reading

Teaching reading is very important for the students in senior high school, because it is can increase their knowledge. So, the teachers should help the students improve their ability to comprehend the English text.

## 1. Principles for Teaching Reading

According to Nunan, there are eight principles for teaching reading. ${ }^{17}$
a. Exploting reader's background knowledge Carrel in Nunan says that a reader's background knowledge can influence reading comprehension. ${ }^{18}$ Background knowledge includes all of the experiences that a reader brings to a text: life experiences, education experiences, and knowledge of how texts can be organized rhetorically, knowledge of how one's first language works, and

[^5]knowledge of how second language works, and cultural background and knowledge. ${ }^{19}$
b. Build a strong vocabulary base

Levine in Nunan argues that the role to build a strong vocabulary, it is in part by reviewing the research on vocabulary acquisition. It is easier for the reader of academic texts to cope with special terminology than with general vocabulary. ${ }^{20}$
c. Teach for comprehension

In many reading instruction programs, more emphasis and time may be placed on testing reading comprehension than on teaching readers how to comprehend. Monitoring comprehension is essential to successful reading.
d. Work on increasing reading rate

The teacher must work toward finding a balance between assisting students to improve their reading rate and developing reading comprehension skills. It is very important to understand that the focus is not to develop speed readers, but fluent readers. ${ }^{21}$

[^6]e. Teach reading strategies

Oxford in Nunan Books, Strategies are "the tools for active, self-directed involvement that is necessary for developing communicative activity. Strategy are not a single event, but rather a creative sequence of events that learners actively use". This definition underscores the active role that readers take in strategic reading. Anderson in Nunan say, to achieve the desired result, students need to learn how to use a range of reading strategies that match their purposes for reading. ${ }^{22}$
f. Encourage readers to transform strategies into skills The characterization underscores the active role that readers play in strategic reading. As learners move from conscious to unconscious; from strategy to skill.
g. Build assessment and evaluation into your teaching Assessing growth and development in reading skills from both a formal and an informal perspective requires time and training. Both quantitative and qualitative assessment activities should be included in the reading classroom.

[^7]h. Strive for continuous improvement as a reading teacher

Reading teachers need to be passionate about their work. They should view themselves as facilitator, helping each reader discover what works best. The good reading teacher actively teaches students what to do. ${ }^{23}$

## c. Models of Reading Comprehension

1. Bottom-up models

Bottom-up models typically consist of lower-level reading processes. Students start with the fundamental basic of letter and sound recognition, which in turn allows for morpheme recognition followed by word recognition, building up to the identification of grammatical structures, sentences, and longer texts. Letter, letter clusters, word, phrases, sentences, longer text, and finally meaning is the order in achieving comprehension. ${ }^{24}$

Christine Nuttall in Douglas Brown, compares bottom-up process with the image of a scientist with a magnifying glass or

[^8]microscope examining all the minute details of some phenomenon. ${ }^{25}$
2. Top-down models

Top-down models, on other hand, begin with the idea that comprehension resides in the reader. The reader use background knowledge, makes prediction, and searches the text to confirm or reject the predictions that are made. A passage can thus be understood even if all of the individual words are no understood. Within a top-down approach to reading the teachers should focus on meaning generating activities rather than on mastery of word recognition. ${ }^{26}$

Christine Nuttal in Douglas, top-down processing is like taking an eagle's eye view of a landscape below. ${ }^{27}$
3. Interactive models

The models that are accepted as the most comprehensive description of the reading process are interactive models. An interactive approach to reading would include aspects of both intensive and extensive reading. We need to provide learners

[^9]with shorter passages to teach specific reading skills and strategies explicitly. ${ }^{28}$

## 2. P2R (Preview, Read, and Review) Strategy

The P2R reading/study strategy is designed for textbooks that are from easy to average level in difficulty. Use P2R on the entire chapter or on ten page chunks. First, preview the entire chapter. Next, read actively by highlighting or taking notes as you read. Finally, review using an active strategy such as reciting, answering review question, writing questions in the margin. ${ }^{29}$

## a. The Steps of P2R (Preview, Read, And Review) Strategy

1. Preview

A preview is a brief overview of a chapter done before reading. Previewing takes very little time and effort most students can do it in two to five minutes. The first thing to do is read the title of the chapter. Then read the introduction, outline, or structured overview (a visual display of key information) at the beginning of the chapter. ${ }^{30}$ According to the first step above it means that, preview is the activities to get general information from a text.

[^10]
## 2. Read Actively

The second step of P2R is active reading in small chunks (ten pages at a time). Decide how much to read in a sitting and make it an achievable amount. Always keep your purpose in mind. Look for answers or ideas related to your questions. Avoid being side-tracked by the interesting but irrelevant elements. When reading difficult material, focus on what you do understand. If necessary revisit the tricky bits later. When possible, photocopy relevant material so that you can underline key words and write notes in the margin. Analyses the reading as you go, writing down any thoughts or questions that go through your mind. ${ }^{31}$
3. Review

The last step is review. After you complete a section of reading and at the end of the chapter, you need to review-do something to reinforce the important information. There are a number of ways that you can review the text material, but here are four of the most common ones. First, if you highlighted or took notes to read actively, write questions in the margin of your text or notes at the end of each ten page chunk of the chapter. Then when you finish reading the entire chapter, recite the answers to your questions. Second, use the headings to

[^11]recite the key information. Cover the details with your hand and recite using the headings as cues.

Third, do the exercises or do the questions at the end of the chapter. Finally, you can take the end-of-chapter tests or online tests to review and monitor your learning. You don't need to use all of these strategies, but try them as you complete your reading assignments and find the ones that work best for you. ${ }^{32}$
b. Advantages of P2R (Preview, Read, And Review) Strategy

The P2R reading/study strategy is a very efficient system for dealing with text material. By previewing, reading actively, and reviewing your text, you should be able to significantly increase your comprehension of the material. You may also find that it takes less time to read the chapter, increases interest, builds background to aid comprehension, and prepares your text for later review.

1. Builds Background

Previewing the chapter provides you with some background about topics in the chapter that may be new to you. Even a brief overview of the chapter can help you pick up some general information about the material. You may also gain some understanding of how the information is organized and presented. Both of these kinds of information can help you understand the text material better. Research studies have

[^12]shown that previewing before reading can increase your comprehension of the textbook chapter by 10 to 20 percent.
2. Reduces Reading Time

Even though previewing appears to add a few additional minutes to your reading time, it probably will reduce the total time that it takes you to read the chapter. You can test this yourself. Select a chapter in one of your textbooks and time yourself as you read the chapter. Then select another chapter. This time, preview the chapter and then read it.

## 3. Increases Interest

Many students also report that they get interested in a chapter because of their preview of it. This is especially true when students are reading texts that they find boring. As you preview, you may notice a particular topic in the middle or at the end of the chapter that seems quite interesting. Getting to that "good stuff" can motivate you to read the less interesting material.
4. Improves Comprehension

Reviewing after you read each ten-page chunk helps you reinforce the important information. Without reviewing, you really can not be sure that you did understand the text material or that you can recall it for a quiz or class discussion. Reviewing provides you with an opportunity to move the
information into long-term memory and test your learning. As you will see in later chapters, there are many ways to review text material. A few of the most common ones are described in the next section. Even a five-minute review can increase your comprehension of the material.

## 5. Prepares Your Text for Later Review

Marking your text or taking notes will aid your comprehension even more and prepare your text for later review. In recent years, there has been a great deal of discussion about the value of marking your textbook as you read. One view suggests that marking your textbook is a way to avoid learning the material as you read it. In some ways this is true. However, if you have already started college, you probably realize that you just don't have time to learn all of the material well the first time you read.

The main reason for marking your text is to identify the important information and condense the text material so that you never have to read the entire chapter again. It is not unusual to have 300 pages of text to review for just one exam. Think about how long it would take to reread all of it. And, remember, rereading the text takes a lot of time and doesn't really help you learn the information for the exam. Highlighting or note taking allows you to keep up with your
class assignments, identify and mark the material that you will need to study further, and improve your ability to concentrate, which increases your comprehension. ${ }^{33}$

## c. Reading Assessment

Assessment is the gathering of information for a specific purpose. ${ }^{34}$ Brindley in Kathryn, assessment should not just be another item on an educational "must do" list but rather should serve a real purpose ranging from initial placement to program monitoring. ${ }^{35}$

Assessing comprehension is fraught with challenges, because it can be difficult to determine how much students really know and what they are actually thinking (as we attempted to do in the preceding example). Traditional measures tend to focus on straight recall or literal understandings, but there is much more to comprehension than these.

Reading comprehension assessment has different purposes. One of these is to compare students' comprehension levels to those of students in a norming sample. Another is to find out if students have met pre established criteria for their grade level. A third purpose is to inform instruction by determining when students understand what they read and how efficiently they use which

[^13]comprehension strategies. Similarly, an important purpose is determining why a student may be struggling. ${ }^{36}$

Haager \& Klingner in Janette, teachers must be adept at collecting assessment data so that they can plan what, how, and when to teach. The types of assessment materials and activities the teacher (or other examiner) uses should be determined by the purpose of the assessment. If we know what type of information we need, we can decide what process to follow. As Salvia and Yasseldyke in Janette suggest, we should not talk about assessment unless we talk about "assessment for the purpose of . ..". ${ }^{37}$

Freeman in Kathryn, when assessing students, it is important to remember that assessment should be a measure of what students are able to do and what they know, rather than measure of what they are not able to do and do not know. ${ }^{38}$

Pressley in Janette, traditional measures of reading comprehension are limited in that they provide only a general indicator of how well a student understands text, and they are not based on experts' knowledge of what good readers do to comprehend text. It is generally agreed that good readers connect

[^14]new text with past experiences, interpret, evaluate, synthesize, and consider alternative interpretations of what they have read. ${ }^{39}$

1. Types of reading assessment
a. Norm-referenced tests

Published tests administered under standardized conditions (e.g., with computerized answer sheets, timed); students' scores are compared with those of a normative sample.
b. Criterion-referenced tests

Students' test scores are compared with predetermined criterion levels that indicate mastery of a skill or content; informal reading inventories are a type of criterion-referenced test.
c. Curriculum-based assessment

Tests are based on the actual curriculum used in the classroom, and students are assessed regularly and their progress monitored.
d. Curriculum-based measurement

Students are assessed frequently with standard, brief tests; scores are monitored over time to assess progress.

[^15]e. Interview and questionnaires

Students respond orally or in writing to a list of questions designed to assess their understanding of the reading process and their knowledge of reading strategies.
f. Observation

Examiners observe students' reading behaviors, using checklists, anecdotal records, or ethnographic note taking.
g. Retelling

Students are prompted to retell or reconstruct what
they remember about what they have just finished reading.
h. Think-aloud

Students are prompted to voice their thoughts before, during, and after reading. ${ }^{40}$

In this research, the researcher adopt H. Douglas model to assess students' reading test. ${ }^{41}$

[^16]Table 1.1

Reading comprehension scoring rubric

| aspect | Sub aspect | score | Total |
| :---: | :---: | :---: | :---: |
| Comprehe nsion | 1. Getting the essential information, getting main idea, meaning, can putting conclusion and can identifying fact and opinion. <br> 2. Getting information, getting main idea, meaning, can identifying fact and opinion but cannot give conclusion <br> 3. Getting the essential information, getting main idea, meaning, cannot putting conclusion and cannot identifying fact and opinion. <br> 4. Getting the essential information, getting main idea, but cannot identifying meaning, cannot putting conclusion and cannot identify fact and opinion. <br> 5. Just can getting information and getting main idea | 15 <br> 13 <br> 10 <br> 8 <br> 4 | 50 |
| Task | 1. Can correct answer questions $10 \times 5=50$ | 50 | 50 |
|  |  | 100 | 100 |

## B. Previous Research Finding

There are previous studies that are found by the researcher. The first research was presented by Diana Herlianti entitled "The Effectiveness of SQ3R Method to Teach Reading Comprehension (An Experimental Study in the Second Year Students of SMPN 1 Jenangan Ponorogo in Academic Year 2009/2010)". ${ }^{42}$

The purpose of this research are (1) to define the result of reading comprehension mastery before using SQ3R method in teaching reading, (2) to explain the result of reading comprehension mastery after using SQ3R method in teaching reading, and (3) to find that SQ3R method is very effective to help students to comprehend the text for the second year of SMPN 1 Jenangan Ponorogo.

Based on the result of data analysis and discussion in this previous study, there are some conclusions, they are; 1) the students' reading comprehension mastery before using SQ3R method in teaching reading for the second year of SMPN 1 Jenangan Ponorogo are, for the VIIIA class, the average from the pre test is 74,02 and for the VIIIB class, the average from the pre test is 74,30 and 2 ) the students' reading comprehension mastery after using SQ3R method in teaching reading for the second grade of SMPN 1 Jenangan Ponorogo, for the experiment class, the average from the pos test is 79,388 .

[^17]Based on the conclusion above, SQ3R Method is not effective to teach reading comprehension for the second grade of SMPN 1 Jenangan Ponorogo in Academic year 2009/2010. ${ }^{43}$

The previous study above have same with this research. This research also has purpose to know the students who taught using new strategy have better reading Comprehension than those taught without new strategy in Reading Skill of the Tenth Grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo. This research also use a new method to help students' comprehension in reading text, and to know the effectiveness of using new strategy in teaching reading comprehension.

The differences between this research and previous study above are P2R applied three steps such Preview, Read, and Review. While in SQ3R they are five steps. They are survey, question, read, recite, and review. In another differential, this research used documentation and test to collect the data. Although the previous study above technique of data collection used questionnaire and documentation.

The other previous study is research by Dwi Jayanti entitled "Improving Students’ Reading Comprehension by Overview, Key Ideas, Read, Recite, Reflect, and Review (OK4R) Technique to The Eleventh Grade Students of Al-Risalah Islamic International College (RISTEC) for Girl Slahung Ponorogo" ${ }^{44}$

[^18]This previous study, the researcher analyze the application of OK4R technique at al-Risalah Islamic International College (RISTEC) for girl Slahung Ponorogo in academic year 2010/2011. It aimed to know how the implementation and the effectiveness of OK4R technique to develop students' language skills, response and perception of students. By using OK4R technique, the students' English ability especially for students' reading comprehension at ar-Risalah Islamic International College (RISTEC) for girl Slahung Ponorogo in academic year 2010/2011 will improve as good as possible.

Based on the conclusion of the research above, OK4R technique is an effective technique to improve the reading comprehension at the eleventh grade students of Al-Risalah Islamic International College (RISTEC) for Girl Slahung Ponorogo. Statement above can be seen from this percentage, there are some improvements of each cycle during teaching and learning process by OK4R technique more about $13 \%-34 \%$ (students' activeness and reading comprehension) and $26 \%-27 \%$ (students' achievement) of the total of the students in the class. It means that the implementation of OK4R technique to improve students' comprehension is success and affective. ${ }^{45}$

[^19]Previous study above is as same as this research. This research also applied a strategy in teaching reading. But the aim of previous study above not only to know effectiveness of OK4R technique to develop students' reading comprehension, but also to know how the implementation about this technique to teaching reading.

## C. Theoretical Framework



Based on chart above, the researcher found the problem in students' reading comprehension at SMA Pemberdayaan Bangsa Ngrayun. The students are difficult to comprehend an English text. They cannot to identify general idea and they do not understand the meaning of what they are read. So, the students cannot get information from a text. Those problems make students bored in reading lesson. Hence, the teacher should applied several strategy to make the students interest to read and easier to comprehend a text. The appropriate strategy that used in teaching reading at SMA Pemberdayaan Bangsa Ngrayun is P2R (Preview, Read, and Review) Strategy. P2R (Preview, Read, and Review) Strategy is very effective in teaching reading because this strategy have steps and it can improve students' reading comprehension. After the teacher applied several strategy the students more interest and easier to comprehend meaning of a text. Then, the researcher makes hypothesis that will analyses by research methodology quantitative to measure the effectiveness of P2R (Preview, Read, and Review) Strategy toward Students' Reading Comprehension in Reading skill.

## D. Hypothesis

The students who are taught by using P2R (Preview, Read, Review) strategy have better reading comprehension than those taught without using P2R (Preview, Read, Review) strategy in reading skill of the tenth grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo.

## CHAPTER III

## RESEARCH METHODOLOGY

This chapter serves research methodology that used in this study. The existence of the research methodology has a good of guiding in the research in order to work systematically. The research methodology covers a set of research activities concluded by researcher. It involves research design, population and sample, instrument of data collection, technique of data collection, technique of data anaysis.

## A. Research Design

In this research, the researcher applied a quantitative approach. Quantitative research is 'Explaining phenomena by collecting numerical data that are analyzed using mathematically based methods (in particular statistics) ' ${ }^{46}$

In quantitative approach have many research design. This research applies an experiment research. Experiment research is a powerful research method to establish cause-and-effect relationship involving two or more variables, the variable that becomes the cause (independent) and the variable that become the effect. ${ }^{47}$ Types of experimental research are True Experimental, Quasi experimental, Pre-experimental, or Factorial Design. ${ }^{48}$ In this research, the researcher took quasi experimental with Nonequivalent (Pre-Test and Post-

[^20]Test) Control-Group Design. In quasi-experiments, the investigator uses control and experimental groups but does not randomly assign participants to groups. In this design, a popular approach to quasi-experiments, the experimental group A and the control group B were selected without random assignment. Both groups took a pre-test and post-test. Only the experimental group receives the treatment. ${ }^{49}$

The research design is as follows:

$$
\begin{aligned}
& \mathrm{EO} 1 \rightarrow \mathrm{X} \rightarrow \mathrm{O} 2 \\
& \mathrm{~K} \mathrm{O} 3 \rightarrow \mathrm{X} \rightarrow \mathrm{O} 4
\end{aligned}
$$

Notes:
E : Experiment class (the students who are taught use P2R strategy)
K : Control class (the students who are taught use teacher strategy)
O1 : Pre test for the experiment class
O3 : Pre test for control class
X : Treatment
O2 : post test for the experiment class after using P2R strategy
O4 : post test for the control class after using teacher strategy
Based on the research design above, this research had two classes that were experiment and control class as the subject. There was pre test before treatment and to make the students in the same condition and to

[^21]know the students' reading comprehension and pos test after treatment to measure the effectiveness of treatment.

The researcher used two classes as subject, that was X A class as an experiment which applied P2R strategy, and X B as control class which applied conventional strategy.

In addition, the researcher had drawn the research design in using P2R strategy in teaching reading comprehension. It was divided into some steps:
a. Pre research step

The researcher had to prepare the data which needed before begin the research. For the example, determine of the experiment and control class, the lesson plan, instrument to gain the data, etc.
b. While research step

In this step, the researcher had given pre test for experiment and control class. After the researcher had pre test for experiment and control classes, the researcher applied P2R strategy for experiment class. Steps for applied a P2R strategy to experiment class were; 1) the researcher given a text and some questions in copy paper to students, 2) researcher given explanation about reading comprehension taught by using P2R strategy. The first step was Preview, in this step the students asked to read a title of a text, introduction and the structured outline (usually provided at the beginning paragraph). The second step was Read. In this step, teacher asked students to read all of text and
take notes or highlight important information. The last step was Review. In this step, teacher asked students to summarize the main points or write the some keys of information that what they have read, 3) the teacher were asked students to read a text by using P2R strategy which given from the researcher (teacher), 4) the last, teacher were asked students to answer some questions in copy paper. Those questions are pos test. After that, the researcher applied conventional or not treatment in control class, then the researcher given post test. Then, the data conducted from pre test and post test. Pre test was used to know the students' reading comprehension and to make the students homogeneity before beginning the research. Post test was used to know the result after applying the treatment.
c. Data analysis step

The next steps were analyzing the data after the data is collected by the researcher.

## A. Population And Sample

## 1. Population

The population was the group of people we want to generalize to. ${ }^{50}$ Target population in educational research usually was defined as all the member of a real or hypothetical set of people, events, or object to which educational researchers wish to generalized the result of the

[^22]research. ${ }^{51}$ The population of this research were all students at tenth grade of SMA Pemberdayaan Bangsa Ngrayun Ponorogo in Academic year 2015/2016. The total of population is 52 . They consist of two classes, XA and XB.

## 2. Sample

Charles defined a sample as a small group of people selected to represent the much larger entire population from which had drawn. ${ }^{52}$ According to Andhita, sample is individual a part of population which researched. ${ }^{53}$

In this research, researcher took all of students at tenth grade of SMA Pemberdayaan Bangsa Ngrayun Ponorogo, it is 52 students.

## B. Instrument of Data Collection

Instrument can be defined as a toll to collect data; it had constructed and made to show the empirical data accurately as the real condition of the subject of the research. ${ }^{54}$ In this case, the researcher used test as instruments on data collection.

These research instruments to collect data were test. The test was to analyze the effectiveness of students' reading comprehension in reading skill which taught P2R (Preview, Read, and Review) strategy and

[^23]students' comprehension in reading skill which do not taught P2R (Preview, Read, Review) strategy of the tenth grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo.

In scoring the students' work, the researcher has the following criteria:
a. The 0 score was assigned if the students was incorrect.
b. The 1 score was assigned if the answer was correct.
c. The total raw scores were 10 , because the numbers of the items were 10.

They are consist of two questions for to get information, two question for find the main idea, three question to get the meaning, one question to the difference between fact and opinion, one question for defining vocabulary, and one question for give conclusion.

Table 1.2
Instrument of data collection

| Title of research | variable | indicator | Item number |
| :---: | :--- | :--- | :--- |
| The | $\mathrm{X}: \mathrm{P} 2 \mathrm{R}$ |  | documentati |
| Effectiveness of | Strategy PON |  | on |
| P2R (Preview, |  |  |  |
| Read, Review) |  | 1. Getting the | 5,14 |
| Strategy Toward | $\mathrm{Y}:$ Students' | essential |  |
| Students' | reading | information. |  |
| Comprehension | comprehension |  |  |



## C. Technique of Data Collection

1. Test

A test, in simple terms, was a method of measured a person's ability, knowledge, or performance in a given domain. ${ }^{55}$

Based on the research design above, the researcher used pre test and post test. Pre test was used to know the students' reading comprehension before the researcher given P2R strategy. While post

[^24]test was used to know the students' reading comprehension after using P2R strategy. Pre test and post test divided into multiple choices and true or false. Those were objective tests.
a. Validity

Validity was the correctness of the assessment. ${ }^{56}$ This means that validity was probably the single most important aspect of the design of any measurement instrument in educational research. ${ }^{57}$ According to James Dean Brown, validity test will be defined here as the degree to which a test measures what it claims, or purports, to be measuring. ${ }^{58}$ One of ways to determine validity was Product Moment correlation, as Pearson Formulated: ${ }^{59}$

Formula:

$$
\mathrm{r}_{\mathrm{xy}}=\frac{n \sum x y-\left(\sum x\right)\left(\sum y\right)}{\sqrt{\left\{n \sum x^{2}-\left(\sum x\right)^{2}\right\}\left\{n \sum y^{2}-(\Sigma y)^{2}\right\}}}
$$

Where:
$\mathrm{R}_{\mathrm{xy}}=$ index number of Product Moment correlation
$\sum \mathrm{X}=$ the total of scores of X variable
$\sum \mathrm{Y}=$ the total of scores of Y variable
$\sum \mathrm{XY}=$ the total of multiplying X scores and Y scores

[^25]$\sum X^{2}=$ the total number of square of $X$ variable $\sum \mathrm{Y}^{2}=$ the total number of square of Y variable

The criteria of validity based on the comparison between $\mathrm{r}_{\mathrm{xy}}$ and r -tabel. Where the getting of $\mathrm{r}_{\mathrm{xy}}$ is from product moment formula and gaining the $\mathrm{r}_{\text {tabel }}$ is from correlation coefficient. If the $r_{\text {xy }}>\mathrm{r}_{\text {tabel }}$, the item is valid. ${ }^{60}$

The researcher takes correlation coefficient " r " product moment from Pearson in $\mathrm{db} / \mathrm{df} 35$ and on $5 \%$ of significant stage. ${ }^{61}$ In determined the using of $\mathrm{db} / \mathrm{df}$, the researcher derived from the sum of respondent in validity test. The result of the validity test is satisfaction, from 15 test items there are 10 items are valid. The result of accounting could be seen below: ${ }^{62}$

Table 1.3
The List of Accounting Result in Validity Test

| Items | $\mathrm{r}_{\mathrm{xy}}$ | Mark | $\mathrm{r}_{\text {tabel }}(5 \%)$ | Criteria |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 0.546 | $>$ | 0.325 | Valid |
| 2 | $-0,007$ | $<$ | 0.325 | Invalid |
| 3 | 0.630 | $>$ | 0.325 | Valid |
| 4 | 0.100 | $<$ | 0.325 | Invalid |
| 5 | 0.349 | $>$ | 0.325 | Valid |
| 6 | 1,622 | $>$ | 0.325 | Valid |
| 7 | 0.102 | $<$ | 0.325 | Invalid |
| 8 | 0.602 | $>$ | 0.325 | Valid |
| 9 | 0.583 | $>$ | 0.325 | Valid |
| 10 | 0.397 | $>$ | 0.325 | Valid |
| 11 | 0.099 | $<$ | 0.325 | Invalid |
| 12 | 0.484 | $>$ | 0.325 | Valid |
| 13 | 0.168 | $<$ | 0.325 | Invalid |

[^26]| 14 | 0.335 | $>$ | 0.325 | Valid |
| :--- | :--- | :--- | :--- | :--- |
| 15 | 0.625 | $>$ | 0.325 | Valid |

According to the table above, the total exercises were 15 numbers. Actually they were numbers that invalid $2,4,7,11$, and 13. It means that, the total number of exercises took pre test and pos test in this research were 10 number.
b. Reliability

In measurement, reliability is a key concept. Reliability then refers to the extent to which test scores are free of measurement error. ${ }^{63}$ In general reliability is defined as the extents to which the result can be consider or stable. ${ }^{64}$ This research use formula Kuder- Richardson. There are two formula is claimed by Kuder- Richardson that are $K R_{20}$ and $K R_{21}$. This research use formula $\mathrm{KR}_{20} .{ }^{65}$

$$
\mathrm{R}_{\mathrm{xx}}=\left(\frac{\mathrm{n}}{\mathrm{n}-1}\right) \cdot\left(\frac{\mathrm{S}_{\mathrm{x}}^{2}-\sum \mathrm{pq}}{\mathrm{~S}_{\mathrm{x}}^{2}}\right)
$$

Where:
n : the number of item
P : the numbers of students who have correct answer

[^27]Q : the number of students who have wrong answer
$\Sigma P Q:$ The number of the multiplication of P and Q

$$
\begin{aligned}
& \mathrm{R}_{\mathrm{xx}}=\left(\frac{\mathrm{n}}{\mathrm{n}-1}\right) \cdot\left(\frac{\mathrm{S}_{\mathrm{x}}{ }^{2}-\sum \mathrm{pq}}{\mathrm{~S}_{\mathrm{x}}{ }^{2}}\right) \\
& \\
& \quad\left(\frac{37}{37-1}\right)\left[\frac{36,3376-3,1015}{36,3376}\right] \\
& \\
& =(11,02777777)\left[\frac{33,2361}{36,3376}\right] \\
& =0,94005452 \\
& =0,91464764) \\
& = \\
& \mathrm{S}_{\mathrm{x}}{ }^{2}=\frac{\Sigma X^{2}}{n} \\
& \mathrm{~S}^{2} \quad: \text { variant all of the test } \\
& \mathrm{N} \\
& \text { : the number of students } \\
& \Sigma x \\
& \text { : the number of score total }
\end{aligned}
$$

Same with validity, the result of coefficient of $\operatorname{KR}-20\left(r_{11}\right)$ is compared with $\mathrm{r}_{\text {tabel }}$ of correlation coefficient " r " product moment. If the $r_{11}>r_{\text {tabel }}$ the item is reliable and vice versa. ${ }^{66}$ The result of calculation is $\mathrm{r}_{11}=0.940$ and $\mathrm{r}_{\text {tabel }}=0.325$. It can be said that the item of test is reliable. ${ }^{67}$

[^28]
## 2. Documentation

Documentary is a kind of important technique to get data about everything or variable which is in the form of note, transcript, book, newspaper, magazine, meeting result, ${ }^{68}$ in other word, it can be stated that documentation is used to collect data through printed material.

In this research, documentation is used to know students pre test and post test in reading comprehension.

## D. Technique of Data Analysis

## 1. Normality Test

Normality test was used to determine whether the data set was well-modeled by a normal distribution or not, or to compute how likely the random variable is to be normally distributed. ${ }^{69}$ To better avoid the mistakes the research uses some formula, there were: Kolmogorovsmirnov, Liliforse, and Chi square. The researcher chooses Kolmogorov-smirnov to calculation this research.

The steps of analyzing normality test as follows: ${ }^{70}$
Step 1 : Make hypotheses
Ha: distribution data are not normally
Ho: distribution data are normally

[^29]Step 2 : Determining of Mx and SDx

$$
\mathrm{SDx}=\sqrt{\frac{\Sigma f x^{2}}{n}-\left(\frac{\Sigma f x}{n}\right)^{2}}
$$

Step 3 : Calculate the value of fkb
Step 4 : calculated each frequency divided by the number of data (f/n).

Step 5 : Fkb calculating each divided by the number of data (fkb/n).

Step 6 : Calculated the value of Z by formula where X is the original value of data and $]$ is the population mean can be estimated using the average of the sample or the mean while $\sigma$ was the standard deviation of a population could be estimated by the standard deviation of the sample values. Z values would be calculated each value after sorted from smallest to largest.

$$
\mathrm{z}=\frac{x-\mu}{\sigma}
$$

Step $7 \quad$ : Calculate $\mathrm{P} \leq \mathrm{Z}$
Step $8:$ For $\mathrm{a}_{2}$ values obtained from the differences between columns 5 and $7(\mathrm{fkb} / \mathrm{n}$ and $\mathrm{P} \leq \mathrm{Z})$

Step 9 : for $\mathrm{a}_{1}$ values obtained from the differences between columns 4 and 8 ( $\mathrm{f} / \mathrm{n}$ and $\mathrm{a}_{2}$ )

Step 10 : Comparing the highest number $\mathrm{a}_{1}$ with kolmogorovsmirnov table.

Step 11 : test the hypothesis.

## 2. Homogeneity Test

Homogeneity test is the variance ratio test between two groups or more. ${ }^{71}$ There are some formula that can be use is Harley test, Cochran test, Levence test, and Bartlett test. The researcher chooses Harley test to calculation this research. The formula of Harley test:

$$
\mathrm{F}(\text { max })=\frac{\text { var max }}{\text { var min }}=\frac{S D_{2_{\text {max }}}}{S D_{\text {min }}}
$$

The steps of analyzing homogeneity test as follows:

1) Make a frequency distribution table.
2) Calculated SD formula:

$$
\begin{aligned}
& \mathrm{SDx}=\sqrt{\frac{\Sigma f x^{2}}{N_{x}}-\left(\frac{\Sigma f x}{N_{x}}\right)^{2}} \\
& \mathrm{SDy}=\sqrt{\frac{\Sigma f y^{2}}{N_{y}}-\left(\frac{\Sigma f y}{N_{y}}\right)^{2}}
\end{aligned}
$$

3) Using the formula Harley:
$\mathrm{F}(\max )=\frac{\text { var max }}{\text { var min }}=\frac{S D_{2_{\text {max }}}}{S D_{\text {min }}}$
4) Comparing F (max) result calculated with F (max) table, with $\mathrm{db}=$ (n-1; k).
5) Test the hypothesis

The steps of analyzing data $t_{\text {test }}$ as follows: ${ }^{72}$

1. The formula of mean variable I and II

[^30]$$
\mathrm{M}_{1}=\mathrm{M}^{\prime}+\mathrm{i}\left(\frac{\Sigma f x^{\prime}}{N_{1}}\right) \quad \mathrm{M}_{2}=\mathrm{M}^{\prime}+\mathrm{i}\left(\frac{\Sigma f y^{\prime}}{N_{2}}\right)
$$
2. Score of standard deviation of variable I and variable II.
$$
\mathrm{SD}_{1}=i \sqrt{\frac{\Sigma f x^{\prime 2}}{N_{1}}-\left(\frac{\Sigma f x^{\prime}}{N_{1}}\right)^{2}} \quad \mathrm{SD}_{2}=i \sqrt{\frac{\Sigma f y^{\prime 2}}{N_{2}}-\left(\frac{\Sigma f y^{\prime}}{N_{2}}\right)^{2}}
$$
3. Error standard of variable I and II.
$$
\mathrm{SE}_{\mathrm{M} 1}=\frac{S D_{1}}{\sqrt{N_{1}-1}} \quad \mathrm{SE}_{\mathrm{M} 2}=\frac{S D_{2}}{\sqrt{N_{2}-1}}
$$
4. Difference standard error score of the means variable I and II
$$
\mathrm{SE}_{\mathrm{m} 1-\mathrm{m} 2}=\sqrt{S E_{M 1}^{2}+S E_{m 2}^{2}}
$$
5. $t_{0}$ score:
$\mathrm{t}_{\mathrm{o}}=\frac{M_{1}-M_{2}}{S E_{M 1-M 2}}$

Where:
$\begin{array}{ll}\mathrm{M}_{1} & =\text { mean of group 1 } \\ \mathrm{M}_{2} & =\text { mean of group 2 } \\ S E_{M 1-M 2} & =\text { error standard between two sample }\end{array}$

## CHAPTER IV

## RESEARCH RESULT

## A. General Data

In this general data, the researcher is described reading process at the tenth grade students of SMA Pemberdayaan Bangsa Ngrayun Ponorogo. Reading has important part of other aspect in language teaching. Because, from reading activity students can increase knowledge and gets some information just from a text. In teaching reading, teacher must have many strategies or methods to teach the students, because the students are bored when teacher only applied one strategy. In fact, teacher in SMA Pemberdayaan Bangsa was only applied one strategy in teaching reading. Usually, the teacher asks the students to read the text, to find the difficult word used dictionary, and then the students do exercises by answering the questions based on the text. So, these activities make the students bored in teaching learning process. Teaching reading in SMA Pemberdayaan Bangsa Ngrayun Ponorogo has some differentials when the researcher applied P2R strategy. It can be seen in the data finding.

P2R strategy needs some steps to teaching reading. Those steps are preview, Read, and Review. So, the students must use those steps to read easily. In applying P2R strategy, the students look not bored to read a text, because they get a new strategy in reading. Other that, in some steps of P2R strategy students not only read activity, such in preview step students just read part of a text, it is just read title and introduction of a text. In read
step, students not only read a text, but they also take notes from important information. In this strategy, students also have writing activity, it is in review step. In review step, students summarize the main points or write some keys of information that what they have read. Based on those many activities in this strategy, students get interested in reading a text.

## B. Specific Data

The population that was used in this research was the tenth grade students of SMA Pemberdayaan Bangsa Ngrayun Ponorogo. The researcher took 56 students as a sample. From the 52 students as samples, the researcher divided them into two groups; each group consisted of 26 students. The first group was the students who are taught by using P2R strategy and the second group was the students who are not taught by using P2R strategy.

1. The time of the research

Table 4.1: experiment class schedule

| Date | STAIN |
| :--- | :--- |
| Activities 00 |  |
| July, $03^{\text {rd }} 2016$ | Pre test |
| August, $09^{\text {rd }} 2016$ | Treatment using P2R strategy |
| August, $09^{\text {rd }} 2016$ | Post test |

Table 4.2 : control class schedule

| Date | Activities |
| :--- | :--- |
| July, $03^{\text {rd }} 2016$ | Pre test |
| August, $09^{\text {rd }} 2016$ | Treatment using conventional strategy |
| August, $09^{\text {rd }} 2016$ | Post test |

2. Procedure of experiment class

This research takes X A as an experiment class which apply P2R strategy. It is applying steps of P2R strategy in teaching reading. The number of experiment class was 26 students.

There are three meeting for the class. Firstly, the students were given pre test to make them in some condition or homogeneity before beginning the research. It used for about 35 minutes. It was hold on July, $3^{\text {rd }} 2016$.

Secondly, the treatment of P2R strategy in teaching reading held on August, $9^{\text {rd }}$ 2016. The material was about news text. It used for 25 minutes. The students must applies the steps of P2R strategy to comprehend the meaning of a text.

Thirdly, that was post test. It was hold on August, $9^{\text {rd }} 2016$. It used to measure whether P2R strategy is success or not as a new strategy in teaching reading. All item test used multiple choice. Before teaching, the teacher explains the reading steps from P2R strategy.
3. Procedure of control class

This research takes XB as a control class which apply conventional strategy. It is trying to make teaching and learning process naturally.

The number of X B class was 26 students. There are three meeting for the class. The procedure of control class is the same with the procedure of experiment class. There are pre test, treatment and post test. Pre test was hold on July, $3^{\text {rd }} 2016$, it used for 25 minutes. The treatment which conventional strategy was hold on August, $9^{\text {rd }} 2016$. Finally, post test was hold on the same time of treatment. It used for 20 minutes.

The material which was taught to the students was same with experimental class. That is one of principles in the experimental research, different treatment with the same material.
4. Students' reading comprehension who are taught using P2R strategy

Table 4.3: the data of pre test and post tests the students who are taught by using P2R strategy

|  | No. | Score |  |
| :---: | :--- | :---: | :---: |
|  |  | Name |  | Pre test |
| Post test |  |  |
| 1 | Aan | 85 | 90 |
| 2 | Ahmat | 80 | 80 |
| 3 | Andri | 75 | 78 |
| 4 | Arifin | 70 | 75 |
| 5 | Bayu | 75 | 75 |
| 6 | Danik | 80 | 85 |


| 7 | Didik | 65 | 70 |
| :---: | :---: | :---: | :---: |
| 8 | Eka | 68 | 70 |
| 9 | Fendik | 73 | 75 |
| 10 | Iin | 75 | 80 |
| 11 | Ilham | 78 | 80 |
| 12 | Khoirul | 60 | 65 |
| 13 | Komarianto | 70 | 73 |
| 14 | Nurwati | 73 | 73 |
| 15 | Reza | 82 | 85 |
| 16 | Rini | 75 | 78 |
| 17 | Riski | 75 | 80 |
| 18 | Rudianto | 70 | 75 |
| 19 | Sulastri | 70 | 75 |
| 20 | Suratin | 75 | 78 |
| 21 | Agung | 65 | 65 |
| 22 | Alvina | 85 | 90 |
| 23 | Anggih | 78 | 80 |
| 24 | Dandi | 70 | 75 |
| 25 | Dwi wahyu | 65 | 70 |
| 26 | Dwi wanhyuni | 75 | 75 |

5. Students' reading comprehension who are taught without using P2R strategy

Table 4.4: the data of pre test and post test the students who are taught without using P2R strategy

| No. | Name | Score |  |
| :---: | :--- | :---: | :---: |
|  |  | Post test |  |
| 1 | Andik | 80 | 83 |


| 2 | Eka | 75 | 76 |
| :---: | :---: | :---: | :---: |
| 3 | Eko | 70 | 70 |
| 4 | Nurjanah | 70 | 72 |
| 5 | Nursito | 75 | 76 |
| 6 | Nurvita | 80 | 80 |
| 7 | Putra | 65 | 65 |
| 8 | Riana | 65 | 65 |
| 9 | Rita | 73 | 73 |
| 10 | Sarwanto | 75 | 80 |
| 11 | Siska | 78 | 78 |
| 12 | Siti | 65 | 65 |
| 13 | Sulastri | 70 | 70 |
| 14 | Suprianto | 73 | 73 |
| 15 | Tumini | 80 | 80 |
| 16 | Widarti | 75 | 75 |
| 17 | Yayuk | 70 | 70 |
| 18 | Khusnul | 70 | 70 |
| 19 | Lilies | 70 | 72 |
| 20 | Mariani | 75 | 76 |
| 21 | Miswanto | 65 | 65 |
| 22 | Zizin | 80 | 80 |
| 23 | Nonik | GO78 | 78 |
| 24 | Parwito | 70 | 70 |
| 25 | Puji | 65 | 65 |
| 26 | Surawan | 70 | 70 |

## C. Data Analysis

Data have been collected variables were tested by " test" comparison formula, which was to find out that was significant difference between the
two variables are required, first was to calculate the mean, standard deviations, and standard error from each data (variables). The data then should fulfill several assumptions before it was used for testing hypothesis.

1. Assumption
a. Normality

Normality tests were conducted to known whether the data distribution was normal distribution or not. For this test, it would be proposed the hypothesis as follow:
$\mathrm{Ho}=$ the data was not normal distributor
$\mathrm{Ha}=$ the data was normal distribution
Table 4.5: normality of data and calculation of the students reading comprehension that taught P2R strategy (variable X)

| X | F | FX | $\mathrm{X}^{2}$ | $\mathrm{FX}^{2}$ |
| :--- | :--- | :--- | :--- | :--- |
| 90 | 2 | 180 | 8100 | 32400 |
| 85 | 2 | 170 | 7225 | 28900 |
| 80 | 5 | 400 | 6400 | 160000 |
| 78 | 3 | 234 | 6084 | 54756 |
| 75 | 7 | 525 | 5625 | 275625 |
| 73 | 2 | 146 | 5329 | 21316 |
| 70 | 3 | 210 | 4900 | 44100 |
| 65 | 2 | 130 | 4225 | 16900 |
| Total | $\mathbf{\Sigma 2 6}$ | $\mathbf{\Sigma 1 9 9 5}$ | $\mathbf{\Sigma 4 7 8 8 8}$ | $\mathbf{\Sigma 6 3 3 9 9 7}$ |

According to table above, to calculate mean of students' reading comprehension score is used formula:

$$
\begin{aligned}
\mathrm{Mx} & =\frac{\Sigma f x}{n} \\
& =\frac{1995}{26} \\
& =76,73
\end{aligned}
$$

Then, the next step is calculated standard deviation that is used formula:

$$
\begin{aligned}
\mathrm{SDx} & =\sqrt{\frac{\Sigma f x^{2}}{n}-\left(\frac{\Sigma f x}{n}\right)^{2}} \\
& =\sqrt{\frac{633997}{26}-\left(\frac{1995}{26}\right)^{2}} \\
& =\sqrt{24.384,5-(76,8)^{2}} \\
& =\sqrt{24.384,5-5.898,24} \\
& =\sqrt{18.486,26} \\
& =135,96419
\end{aligned}
$$

According to mean and standard deviation of students' reading comprehension score, the researcher defines the normality of that data by using Kolmogorov-Smirnov.

Table 4.6: normality of data and calculation of the students reading comprehension who are taught using P2R strategy (variable x ) with the kolmogorov-smirnov formula

| X | F | FK <br> B | $\mathrm{F} / \mathrm{N}$ | $\mathrm{FKB} /$ <br> N | Z | $\mathrm{P} \leq \mathrm{Z}$ | A2 | A1 |
| :--- | :--- | :--- | :--- | :---: | :--- | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 90 | 2 | 26 | 0,07692 | 1,00 | 0,107 | 0,5438 | 0,467 | $-0,390$ |
| 85 | 2 | 24 | 0,07692 | 0,93 | 0,060 | 0,5279 | 0,413 | $-0,337$ |


| 80 | 5 | 22 | 0,19231 | 0,85 | 0,025 | 0,5120 | 0,338 | $-0,146$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 78 | 3 | 17 | 0,11538 | 0,66 | 0,010 | 0,508 | 0,152 | $-0,037$ |
| 75 | 7 | 14 | 0,26923 | 0,54 | $-0,013$ | 0,4920 | 0,048 | 0,222 |
| 73 | 2 | 7 | 0,07692 | 0,27 | $-0,028$ | 0,4880 | $-0,229$ | $-0,153$ |
| 70 | 3 | 5 | 0,11538 | 0,20 | $-0,050$ | 0,4751 | $-0,276$ | $-0,161$ |
| 65 | 2 | 2 | 0,07692 | 0,08 | $-0,087$ | 0,4641 | $-0,395$ | $-0,319$ |

D $(0,05 ; 26)=1,36 / \sqrt{n}=1,36 / \sqrt{26}=0,26672=0,267$

Ho was accepted if A1 max $\leq \mathrm{D}$ table was 0,267

Ho was rejected if A1 max $\geq \mathrm{D}$ table was 0,267

Because the maximum count value of A 1 is 0,222 where the figure is smaller than the table, so the decision is acceptable Ho, which mean the data is normality distributed.

Table 4.7: normality of data and calculation of the average standard deviation of the reading comprehension who are taught without using P2R strategy (variable y)

| X | F | FX | $\mathrm{X}^{2}$ | $\mathrm{FX}^{2}$ |
| :--- | :--- | :--- | :--- | :--- |
| 83 | 1 | 83 | 6889 | 6889 |
| 80 | 4 | 360 | 6400 | 129600 |
| 78 | 2 | 156 | 6084 | 24336 |
| 76 | 3 | 228 | 5776 | 51984 |
| 75 | 1 | 75 | 5625 | 5625 |
| 73 | 2 | 146 | 5329 | 21316 |
| 72 | 2 | 144 | 5184 | 20736 |


| 70 | 6 | 420 | 4900 | 176400 |
| :--- | :--- | :--- | :--- | :--- |
| 65 | 5 | 325 | 4225 | 105625 |
| Total | $\mathbf{2 6}$ | $\mathbf{1 9 3 7}$ | $\mathbf{5 0 4 1 2}$ | $\mathbf{5 4 2 5 1 1}$ |

According to table above, to calculate mean of students' reading comprehension score were used formula:

$$
\begin{aligned}
\mathrm{Mx} & =\frac{\Sigma f x}{n} \\
& =\frac{1937}{26} \\
& =74,5
\end{aligned}
$$

Then, the next step is calculated standard deviation was used formula:

$$
\begin{aligned}
\mathrm{SDx} & =\sqrt{\frac{\Sigma f x^{2}}{n}-\left(\frac{\sum f x}{n}\right)^{2}} \\
& =\sqrt{\frac{542511}{26}-\left(\frac{1937}{26}\right)^{2}} \\
& =\sqrt{20.865,8077-(74,5)^{2}} \\
& =\sqrt{20.865,8077-5.550,25} \\
& =\sqrt{15.315,5577} \\
& =123,75604
\end{aligned}
$$

According to mean and standard deviation of students' reading comprehension score, the researcher defines the normality of that data by using Kolmogorov-Smirnov.

Table 4.8: normality of data and calculation of the students reading comprehension who are taught by using P2R strategy (variable x ) with the kolmogorov-smirnov formula

| X | F | FKB | $\mathrm{F} / \mathrm{N}$ | FKB <br> $/ \mathrm{N}$ | Z | $\mathrm{P} \leq \mathrm{Z}$ | A2 | A1 |
| :--- | :--- | :--- | :--- | :---: | :--- | :---: | :---: | :--- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 83 | 1 | 26 | 0,03846 | 1,00 | 0,069 | 0,5279 | 0,473 | $-0,435$ |
| 80 | 4 | 25 | 0,15385 | 0,97 | 0,045 | 0,5199 | 0,451 | $-0,298$ |
| 78 | 2 | 21 | 0,07692 | 0,81 | 0,029 | 0,5120 | 0,298 | $-0,222$ |
| 76 | 3 | 19 | 0,11538 | 0,74 | 0,013 | 0,5080 | 0,232 | $-0,117$ |
| 75 | 1 | 16 | 0,03846 | 0,62 | 0,005 | 0,5040 | 0,117 | $-0,079$ |
| 73 | 2 | 15 | 0,07692 | 0,58 | $-0,013$ | 0,4920 | 0.088 | $-0,012$ |
| 72 | 2 | 13 | 0,07692 | 0,50 | $-0,021$ | 0,4880 | 0,012 | 0,065 |
| 70 | 6 | 11 | 0,23077 | 0,43 | $-0,037$ | 0,4840 | 0,054 | 0,177 |
| 65 | 5 | 5 | 0,19231 | 0,20 | $-0,077$ | 0,4681 | 0,269 | 0,077 |

This study, the research used Kolmogorov-Smirnov resulted
D ( 0,$05 ; 26$ ) from table 1,36
D $(0,05 ; 26)=1,36 / \sqrt{n}=1,36 / \sqrt{26}=0,26672=0,267$

Ho was accepted if A1 max $\leq \mathrm{D}$ table is 0,267

Ho was rejected if $\mathrm{A} 1 \max \geq \mathrm{D}$ table is 0,267

Because the maximum count value of A1 is $0,177(0,77 \leq$ 0,267 ) where the figure is smaller than the table, so the decision is to accept Ho, which mean the data is normality distributed.
b. Homogeneity

For homogeneity, this research used Harley, with step follow:

Table 4.9: the calculation of mean and standard deviation of pre
test the students who are taught by using P2R strategy

| X | F | FX | $\mathrm{X}^{2}$ | $\mathrm{FX}^{2}$ |
| :--- | :--- | :--- | :--- | :--- |
| 85 | 2 | 170 | 7225 | 28900 |
| 82 | 1 | 82 | 6724 | 6724 |
| 80 | 2 | 160 | 6400 | 25600 |
| 78 | 2 | 156 | 6084 | 24336 |
| 75 | 7 | 525 | 5625 | 275625 |
| 73 | 2 | 146 | 5329 | 21316 |
| 70 | 5 | 350 | 4900 | 122500 |
| 68 | 1 | 68 | 4624 | 4624 |
| 65 | 3 | 195 | 4225 | 38025 |
| 60 | 1 | 60 | 3600 | 3600 |
| total | $\mathbf{2 6}$ | $\mathbf{1 9 1 2}$ |  | $\mathbf{5 5 1 2 5 0}$ |

Table 4.10: the calculation of mean and standard deviation of post test the students who are taught by using P2R strategy

| Y | F | FY | $\mathrm{Y}^{2}$ | $\mathrm{FY}^{2}$ |
| :--- | :--- | :--- | :--- | :--- |
| 90 | 2 | 180 | 8100 | 32400 |


| 85 | 2 | 170 | 7225 | 28900 |
| :--- | :--- | :--- | :--- | :--- |
| 80 | 5 | 400 | 6400 | 160000 |
| 78 | 3 | 234 | 6084 | 54756 |
| 75 | 7 | 525 | 5625 | 275625 |
| 73 | 2 | 146 | 5329 | 21316 |
| 70 | 3 | 210 | 4900 | 44100 |
| 65 | 2 | 130 | 4225 | 16900 |
| total | $\mathbf{\Sigma 2 6}$ | $\mathbf{\Sigma 1 9 9 5}$ | $\mathbf{\Sigma 4 7 8 8 8}$ | $\mathbf{\Sigma 6 3 3 9 9 7}$ |

According to table above, to calculate standard deviation of
pre test students' reading comprehension score is used formula:

$$
\begin{aligned}
\text { SDx } & =\sqrt{\frac{\Sigma f x^{2}}{n}-\left(\frac{\Sigma f x}{n}\right)^{2}} \\
& =\sqrt{\frac{551250}{26}-\left(\frac{1912}{26}\right)^{2}} \\
& =\sqrt{21.201,924-(73,539)^{2}} \\
& =\sqrt{21.201,924-5.407,9051} \\
& =\sqrt{15.794,0189} \\
& =125,67426
\end{aligned}
$$

Then, the next to calculate standard deviation of post test
students' reading comprehension score is used formula:

$$
\begin{aligned}
\text { SDy } & =\sqrt{\frac{\Sigma f y^{2}}{n}-\left(\frac{\Sigma f y}{n}\right)^{2}} \\
& =\sqrt{\frac{633997}{26}-\left(\frac{1995}{26}\right)^{2}} \\
& =\sqrt{24.384,5-(76,8)^{2}}
\end{aligned}
$$

$$
\begin{aligned}
& =\sqrt{24.384,5-5.898,24} \\
& =\sqrt{18.486,26} \\
& =135,96419
\end{aligned}
$$

Then, the next step is comparing F (max) result by using formula Harley:

$$
\begin{aligned}
\mathrm{F}(\max ) & =\frac{\text { var max }}{\text { var min }}=\frac{S D_{2} \max ^{2}}{S D_{\text {min }}} \\
& =\frac{135,96419}{125,67426} \\
& =1,08188
\end{aligned}
$$

$\mathrm{Db}=(\mathrm{n}-1 ; \mathrm{k})=(26-1 ; 2)=25 ; 2$ in $5 \%$ signification was 2,95
Ho is accepted if $\mathrm{f}(\max ) \leq \mathrm{F}(\max )$ table
Ha is rejected if $\mathrm{F}(\max ) \geq \mathrm{F}(\max )$ table
Because $F$ (max) is $1,82 \leq F(\max )$ table so the data is homogeneity.

Table 4.11: the calculation of mean and standard deviation of pre test the students who are not taught without using P2R strategy

| X | F | FX | $\mathrm{X}^{2}$ | $\mathrm{FX}^{2}$ |
| :--- | :--- | :--- | :--- | :--- |
| 80 | 4 | 320 | 6400 | 102400 |
| 78 | 2 | 156 | 6084 | 24336 |
| 75 | 5 | 375 | 5625 | 140625 |
| 73 | 2 | 146 | 5329 | 21316 |


| 70 | 8 | 560 | 4900 | 313600 |
| :--- | :--- | :--- | :--- | :--- |
| 65 | 5 | 325 | 4225 | 105625 |
| Total | $\mathbf{2 6}$ | $\mathbf{1 8 8 2}$ | $\mathbf{3 2 . 5 6 3}$ | $\mathbf{7 0 7 . 9 0 2}$ |

Table 4.12: the calculation of mean and standard deviation of post test the students who are taught without using P2R strategy

| Y | F | FY | $\mathrm{Y}^{2}$ | $\mathrm{FY}^{2}$ |
| :--- | :--- | :--- | :--- | :--- |
| 83 | 1 | 83 | 6889 | 6561 |
| 80 | 4 | 320 | 6400 | 102400 |
| 78 | 2 | 156 | 6084 | 24336 |
| 76 | 3 | 228 | 5776 | 51984 |
| 75 | 1 | 75 | 5625 | 5625 |
| 73 | 2 | 146 | 5329 | 21316 |
| 72 | 2 | 144 | 5184 | 20736 |
| 70 | 6 | 456 | 4900 | 207936 |
| 65 | 5 | 325 | 4225 | 105625 |
| total | $\mathbf{2 6}$ | $\mathbf{1 9 3 3}$ | $\mathbf{5 0 4 1 2}$ | $\mathbf{5 4 6 . 5 1 9}$ |

According to table above, to calculate standard deviation of pre test students' reading comprehension score is used formula:

$$
\begin{aligned}
\mathrm{SDx} & =\sqrt{\frac{\Sigma f x^{2}}{n}-\left(\frac{\Sigma f x}{n}\right)^{2}} \\
& =\sqrt{\frac{\mathbf{7 0 7 . 9 0 2}}{26}-\left(\frac{\mathbf{1 8 8 2}}{26}\right)^{2}}
\end{aligned}
$$

$$
\begin{aligned}
& =\sqrt{27.227-(72,38462)^{2}} \\
& =\sqrt{27.2-5.239,53321} \\
& =\sqrt{21.987,46679} \\
& =148,28171
\end{aligned}
$$

Then, the next to calculate standard deviation of post test students' reading comprehension score is used formula:

$$
\begin{aligned}
\text { SDy } & =\sqrt{\frac{\Sigma f y^{2}}{n}-\left(\frac{\Sigma f y}{n}\right)^{2}} \\
& =\sqrt{\frac{546.519}{26}-\left(\frac{1933}{26}\right)^{2}} \\
& =\sqrt{21.019,96154-(74,34615)^{2}} \\
& =\sqrt{21.019,96154-5.527,35002} \\
& =\sqrt{15.492,61152} \\
& =124,46932
\end{aligned}
$$

Then, the next step is comparing F (max) result by using formula Harley:

$$
\begin{aligned}
F(\max ) & =\frac{\text { var } \max }{\text { var min }}=\frac{S D_{2} \max }{S D_{\min }} \\
& =\frac{148,28171}{124,46932} \\
& =1,19131
\end{aligned}
$$

$\mathrm{Db}=(\mathrm{n}-1 ; \mathrm{k})=(26-1 ; 2)=25 ; 2$ in $5 \%$ signification was 2,95
Ho is accepted if $\mathrm{f}(\max ) \leq \mathrm{F}(\max )$ table

Ha is rejected if $\mathrm{F}(\max ) \geq \mathrm{F}(\max )$ table
Because F (max) was $1,92 \leq \mathrm{F}$ (max) table so the data is homogeneity
c. T-test

As the step to calculate the " t " test formula, the first step is calculating the reading comprehension score.

Table 4.13: the computation of students' reading comprehension
who are taught by using P2R strategy (experiment class)

| Interval | f | fkb | x | $\mathrm{x}^{\mathrm{I}}$ | $\mathrm{Fx}^{1}$ | $\left(\mathrm{x}^{1}\right)^{2}$ | $\mathrm{~F}\left(\mathrm{x}^{1}\right)^{2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $90-94$ | 2 | 6 | 92 | 3 | 6 | 9 | 18 |
| $85-89$ | 2 | 24 | 87 | 2 | 4 | 4 | 8 |
| $80-84$ | 5 | 22 | 82 | 1 | 5 | 1 | 5 |
| $75-79$ | 10 | 17 | 77 | 0 | 0 | 0 | 0 |
| $70-74$ | 5 | 7 | 72 | -1 | -5 | 1 | 5 |
| $65-69$ | 2 | 2 | 67 | -2 | -2 | 4 | 8 |
| Total | $\mathbf{2 6}$ |  |  |  | $\mathbf{8}$ |  | $\mathbf{4 4}$ |

According to the table above, to computation mean of students' reading comprehension score is used formula:

$$
\mathrm{M}_{\mathrm{x}}=\mathrm{M}^{\prime}+\mathrm{i} \frac{\Sigma \mathrm{Fx}^{\prime}}{n}
$$

$$
\begin{aligned}
& =77+5 \frac{8}{26} \\
& =77+5 \times 0,30769 \\
& =77+1,53845 \\
& =78,53845
\end{aligned}
$$

Then the next step is calculated standard deviation is used formula:

$$
\begin{aligned}
\mathrm{SDx} & =i \sqrt{\frac{\Sigma f\left(x^{\prime}\right)^{2}}{n}-\left(\frac{\Sigma f x^{\prime}}{n}\right)^{2}} \\
& =5 \sqrt{\frac{44}{26}-\left(\frac{8}{26}\right)^{2}} \\
& =5 \sqrt{1,69231-(0,30769)^{2}} \\
& =5 \sqrt{1,69231-0,09467} \\
& =5 \sqrt{1,59764} \\
& =5 \times 1,26398 \\
& =6,3199
\end{aligned}
$$

The next step is calculated standard error that is used formula:

$$
\begin{aligned}
\mathrm{SE}_{\mathrm{M} 1} & =\frac{S D_{1}}{\sqrt{N_{1}-1}} \\
& =\frac{6,3199}{\sqrt{26-1}} \\
& =\frac{6,3199}{5} \\
& =1,26398
\end{aligned}
$$

Table 4.14: the computation of students' reading comprehension who are taught without using P2R strategy (experiment class)

| Interval | F | fkb | y | $\mathrm{y}^{1}$ | $\mathrm{Fy}^{1}$ | $\left(\mathrm{y}^{1}\right)^{2}$ | $\mathrm{~F}\left(\mathrm{y}^{1}\right)^{2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $85-89$ | 2 | 26 | 87 | 3 | 6 | 9 | 18 |
| $80-84$ | 3 | 24 | 82 | 2 | 6 | 4 | 12 |
| $75-79$ | 9 | 21 | 77 | 1 | 9 | 1 | 9 |


| $70-74$ | 7 | 12 | 72 | 0 | 0 | 0 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $65-69$ | 4 | 5 | 67 | -1 | -4 | 1 | 4 |
| $60-64$ | 1 | 1 | 62 | -2 | -2 | 4 | 4 |
| Total | $\mathbf{2 6}$ |  |  |  | $\mathbf{1 5}$ |  | $\mathbf{4 7}$ |

According to the table above, to computation mean of students' reading comprehension score is used formula:

$$
\mathrm{M}_{\mathrm{y}}=\mathrm{M}^{\prime}+\mathrm{i} \frac{\Sigma \mathrm{Fy}}{n}
$$

$$
\begin{aligned}
& =72+5 \frac{15}{26} \\
& =72+5 \times 0,57692 \\
& =72+2,8846 \\
& =74,8846
\end{aligned}
$$

Then the next step is calculated standard deviation was used formula

$$
\begin{aligned}
\mathrm{SDy} & =i \sqrt{\frac{\Sigma f\left(y^{\prime}\right)^{2}}{n}-\left(\frac{\Sigma f y^{\prime}}{n}\right)^{2}} \\
& =5 \sqrt{\frac{47}{26}-\left(\frac{15}{26}\right)^{2}} \\
& =5 \sqrt{1,80769-(0,57692)^{2}} \\
& =5 \sqrt{1,80769-0,33284} \\
& =5 \sqrt{1,47485} \\
& =5 \times 1,21443 \\
& =6,07215
\end{aligned}
$$

The next step is calculated standard error that is used formula:

$$
\begin{aligned}
\mathrm{SE}_{\mathrm{M} 2} & =\frac{S D_{2}}{\sqrt{N_{2}-1}} \\
& =\frac{6,07215}{\sqrt{26-1}} \\
& =\frac{6,07215}{5} \\
& =1,2144
\end{aligned}
$$

The computation of differences error standard score between $\mathrm{M}_{1}$ and $\mathrm{M}_{2}$

$$
\mathrm{SE}_{\mathrm{m} 1-\mathrm{m} 2}={\sqrt{S E_{m 1}{ }^{2}+S E_{m 2}}{ }^{2}}^{2}
$$

$$
=\sqrt{1,26398^{2}+1,21443^{2}}
$$

$$
=\sqrt{1,59765+1,47484}
$$

$$
=\sqrt{3,07249}
$$

$$
=1,75285
$$

From the several computations above, the last part is computed $t_{0}$ test. It is used to known $t_{0}$ score that is used to compare with $t_{t}$ to answer statement of the problem and hypothesis.

The computation of $t_{0}$ score

$$
\begin{aligned}
& \mathrm{t}_{\mathrm{o}}=\frac{M_{1}-M_{2}}{S E_{M 1-M 2}} \\
& =\frac{78,5385-74,8846}{1,75249} \\
& =\frac{3,6539}{1,75249} \\
& =2,08498(2,85)
\end{aligned}
$$

Table 4.15: the computation of students' reading comprehension of post test the students who are taught without using P2R strategy (control class)

| Interval | F | fkb | x | $\mathrm{x}^{1}$ | $\mathrm{Fx}^{1}$ | $\left(\mathrm{x}^{1}\right)^{2}$ | $\mathrm{~F}\left(\mathrm{x}^{1}\right)^{2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $81-84$ | 1 | 26 | 83 | 3 | 3 | 9 | 9 |
| $78-80$ | 6 | 25 | 79 | 2 | 12 | 4 | 24 |
| $75-77$ | 4 | 19 | 76 | 1 | 4 | 1 | 4 |
| $72-74$ | 4 | 15 | 73 | 0 | 0 | 0 | 0 |
| $68-71$ | 6 | 11 | 70 | -1 | -6 | 1 | 6 |
| $65-67$ | 5 | 5 | 66 | -2 | -10 | 4 | 20 |
| total | $\mathbf{2 6}$ |  |  |  | $\mathbf{3}$ |  | $\mathbf{6 3}$ |

$$
\begin{aligned}
\mathrm{M}_{\mathrm{x}} & =\mathrm{M}^{\prime}+\mathrm{i} \frac{\Sigma \mathrm{Fx}^{\prime}}{n} \\
& =73+3 \frac{3}{26} \\
& =73+3 \times 0,11538 \\
& =73+0,34614 \\
& =73,34614
\end{aligned}
$$

$$
\mathrm{SDx}=i \sqrt{\frac{\Sigma f\left(x^{\prime}\right)^{2}}{n}-\left(\frac{\Sigma f x^{\prime}}{n}\right)^{2}}
$$

$$
=3 \sqrt{\frac{63}{26}-\left(\frac{3}{26}\right)^{2}}
$$

$$
=3 \sqrt{2,42308-(0,11538)^{2}}
$$

$$
=3 \sqrt{2,42308-0,01331}
$$

$$
=3 \sqrt{2,40977}
$$

$$
=3 \times 1,55234
$$

$$
\begin{aligned}
& =4,65702 \\
\mathrm{SE}_{\mathrm{M} 1} & =\frac{S D_{1}}{\sqrt{N_{1}-1}} \\
& =\frac{4,65702}{\sqrt{26-1}} \\
& =\frac{4,65702}{5} \\
& =0,9314
\end{aligned}
$$

Table 4.16: the computation of students' reading comprehension of pre test the students who are taught witout using P2R strategy (control class)

| Interval | F | fkb | y | $\mathrm{y}^{1}$ | $\mathrm{Fy}^{1}$ | $\left(\mathrm{y}^{1}\right)^{2}$ | $\mathrm{~F}\left(\mathrm{y}^{1}\right)^{2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $78-80$ | 6 | 26 | 77 | 2 | 12 | 4 | 24 |
| $75-77$ | 5 | 20 | 76 | 1 | 5 | 1 | 5 |
| $72-74$ | 2 | 15 | 73 | 0 | 0 | 0 | 0 |
| $68-71$ | 8 | 13 | 70 | -1 | -8 | 56 | 448 |
| $65-67$ | 5 | 5 | 66 | -2 | -10 | 100 | 500 |
| Total | $\mathbf{2 6}$ |  |  |  | $\mathbf{- 1}$ |  | $\mathbf{9 7 7}$ |

According to the table above, to computation mean of students' reading comprehension score is used formula:

$$
\begin{aligned}
& \mathrm{M}_{\mathrm{y}}=\mathrm{M}^{\prime}+\mathrm{i} \frac{\Sigma \mathrm{Fy}^{\prime}}{n} \\
& =73+3 \frac{-1}{26} \\
& =73+3 \mathrm{x}-0,03846
\end{aligned}
$$

$$
\begin{aligned}
& =73+(-0,11538) \\
& =72,88462
\end{aligned}
$$

Then the next step is calculated standard deviation is used formula:

$$
\begin{aligned}
\mathrm{SDy} & =i \sqrt{\frac{\Sigma f\left(y^{\prime}\right)^{2}}{n}-\left(\frac{\Sigma f y^{\prime}}{n}\right)^{2}} \\
& =3 \sqrt{\frac{977}{26}-\left(\frac{-1}{26}\right)^{2}} \\
& =3 \sqrt{37,57692-(-0,03846)^{2}} \\
& =3 \sqrt{37,57692-0,00148} \\
& =3 \sqrt{37,57544} \\
& =3 \times 6,12988 \\
& =18,38964
\end{aligned}
$$

The next step is calculated standard error was used formula:

$$
\begin{aligned}
\mathrm{SE}_{\mathrm{M} 2} & =\frac{S D_{2}}{\sqrt{N_{2}-1}} \\
& =\frac{18,38964}{\sqrt{26-1}} \\
& =\frac{18,38964}{5}
\end{aligned}
$$

$$
=3,67793
$$

The computation o differences error standard score between $M_{1}$ and $M_{2}$

$$
\begin{aligned}
\mathrm{SE}_{\mathrm{m} 1-\mathrm{m} 2} & =\sqrt{S E_{m 1}^{2}+S E_{m 2}^{2}} \\
& =\sqrt{0,9314^{2}+3,67793^{2}} \\
& =\sqrt{0,86751+13,52717} \\
& =\sqrt{14,39468}
\end{aligned}
$$

$$
=3,79403
$$

From the several computation above, the last part was computed the $t_{0}$ test. It was used to known $t_{o}$ score that was used to compare with $t_{t}$ to answer statement of the problem and hypothesis.

The computation of $t_{0}$ score

$$
\begin{aligned}
& \mathrm{t}_{\mathrm{o}}=\frac{M_{1}-M_{2}}{S E_{M 1-M 2}} \\
& =\frac{73,34614-72,88462}{3,79403} \\
& =\frac{-0,46152}{3,79403} \\
& =0,12164(0,122)
\end{aligned}
$$

D. Discussion

From the computation for experiment class above, it is shown that the difference coefficient of students' Reading comprehension that the students that are taught by using P2R strategy and the students that are taught without using P2R strategy is 2,85 . It is used to find out whether the difference coefficient is a significant coefficient or not, and furthermore it can be used as a basic generate the population.

Hypothesis test ( $\mathrm{t}_{\mathrm{o}}$ ) at 2,85 from the computation above would be compared to the " t " table $\left(\mathrm{t}_{\mathrm{t}}\right)$ with the condition stated below:

1. If the $t_{o} \geq t_{t}$, so Ho is rejected, or Ha is accepted. It means that the mean difference of both variable is a significant difference
2. If the $t_{0} \leq t_{t}$, so Ho is accepted, or Ha is rejected. It means that there is no mean difference of those variables.

To determine the $t_{o}$ is by checking Db and consulted with the $\mathrm{t}_{\mathrm{t}}$ score.

$$
\begin{aligned}
\mathrm{Db} & =(\mathrm{n} 1+\mathrm{n} 2)-2 \\
& =(26+26)-2
\end{aligned}
$$

$$
=54-2
$$

$$
=52
$$

From the db score, the researcher could known that in 5\% signification level, $t_{o}=2,85$ and $t_{t}=2,01$, so $t_{0} \geq t_{t}$ and also in $1 \%$ signification level, $t_{0}=$ 2,85 and $t_{t}=2,68$, so $t_{o} \geq t_{t}$. Based on statement above, researcher could be concluded that there is a significant difference between students who are taught by using P2R strategy and the students who are taught without using P2R strategy.

It means that Null hypothesis (Ho) which states there are no differences between students' reading comprehension is the students who are taught by using P2R strategy and the students who are taught without using P2R strategy. It means Ho is rejected. Alternative hypothesis (ha) which states there is a difference between students' reading comprehension is the students who taught by using P2R strategy and the students who are taught without using P2R strategy, it means Ha is accepted.

From the data above, researcher could be concluded that there is a significant difference between students' reading comprehension who are taught by using P2R strategy and students who are taught without using P2R strategy. In other word, P2R strategy is effective to increasing students' reading comprehension at the tenth grade students of SMA Pemberdayaan Bangsa Ngrayun Ponorogo in academic year 2015/2016.

The P2R reading/study system is a very efficient system for dealing with text material. By previewing, reading actively, and reviewing text, students should be able to significantly increase their reading comprehension of the material. ${ }^{73}$ Strategy in teaching reading can influence comprehension and can increase students interested in reading active


[^31]
## CHAPTER V

## CLOSING

## A. Conclusion

Based on the research result of data analysis and discussion, the researcher concludes that the coefficient is 2,85 . It is higher than the coefficient of table $2,01\left(t_{0} 2,85 \geq t_{t} 2,01\right)$ at the level of significant $5 \%$ and 2,68 at the level of significant $1 \%\left(t_{0} 2,85 \geq t_{t} 2,68\right)$. It means that $t_{0} \geq t_{t}$. In line, null hypothesis (Ho) is rejected and the alternative Hypothesis (Ha) is accepted. Hence, it can be underlined that there is a significant difference between students' reading comprehension who are taught by using P2R strategy and students who are taught without using P2R strategy of the tenth grade students at SMA Pemberdayaan Bangsa Ngrayun Ponorogo in academic year 2015/2016.

## B. Recommendation

Having known the result of research, the researcher gives some suggestions:

1. For the teacher

English teacher are suggested to enrich their teaching skill, and taken part in increasing P2R strategy.
2. For the school

Refer to the result of research, should to give more attention to use P2R strategy in teaching reading comprehension, because it can become a new strategy.

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