

**THE EFFECT OF SQ4R TOWARD UNDERGRADUATE STUDENTS'
CRITICAL READING COMPREHENSION**

THESIS



**STATE ISLAMIC INSTITUTE OF PALANGKA RAYA
FACULTY OF TEACHER TRAINING AND EDUCATION
DEPARTMENT OF LANGUAGE EDUCATION
STUDY PROGRAM OF ENGLISH EDUCATION
2017 M / 1439 H**

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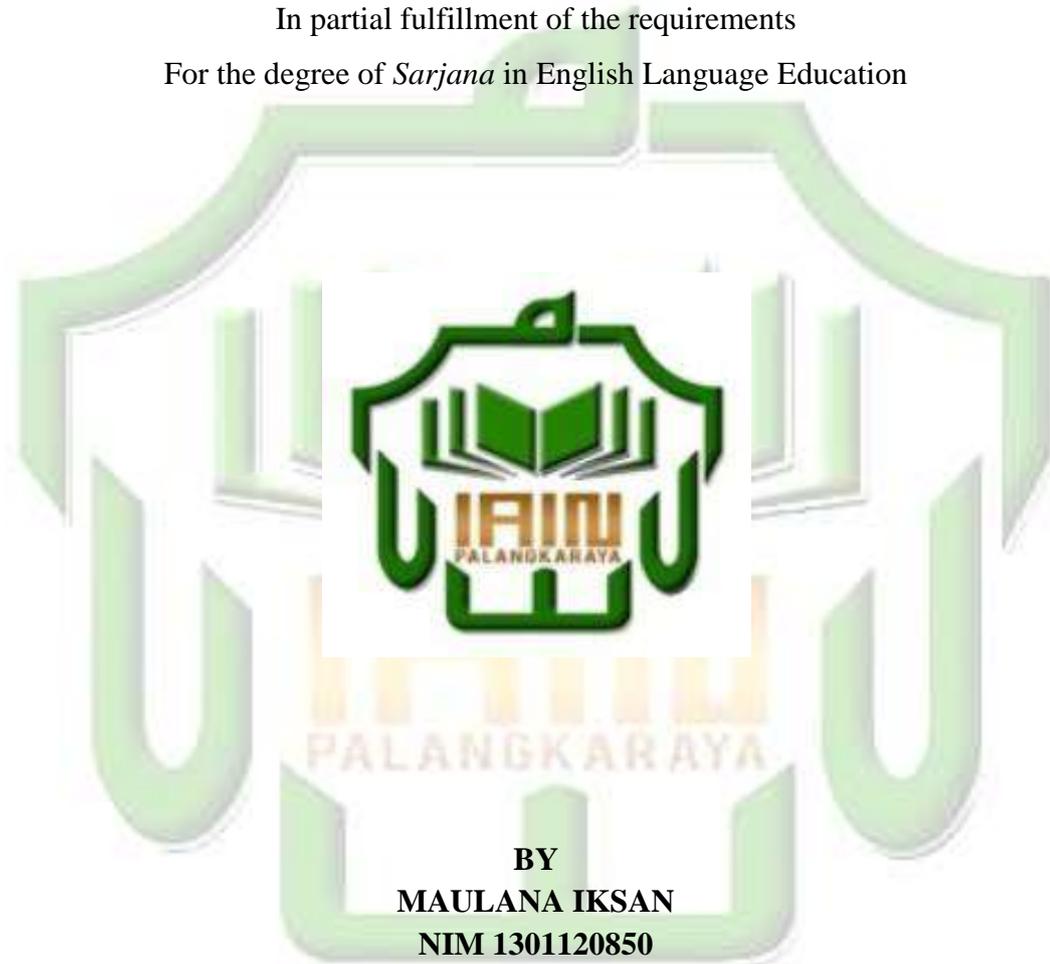
THESIS

Presented to

State Islamic Institute of Palangka Raya

In partial fulfillment of the requirements

For the degree of *Sarjana* in English Language Education



BY

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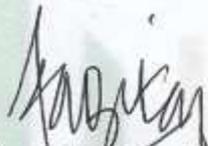
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Palangka Raya, December 2017

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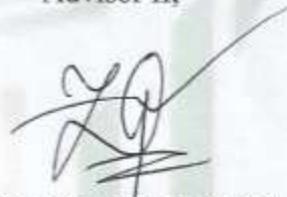
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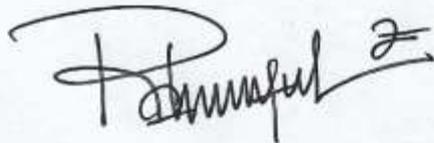
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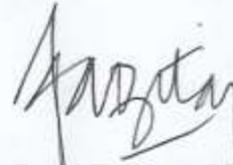
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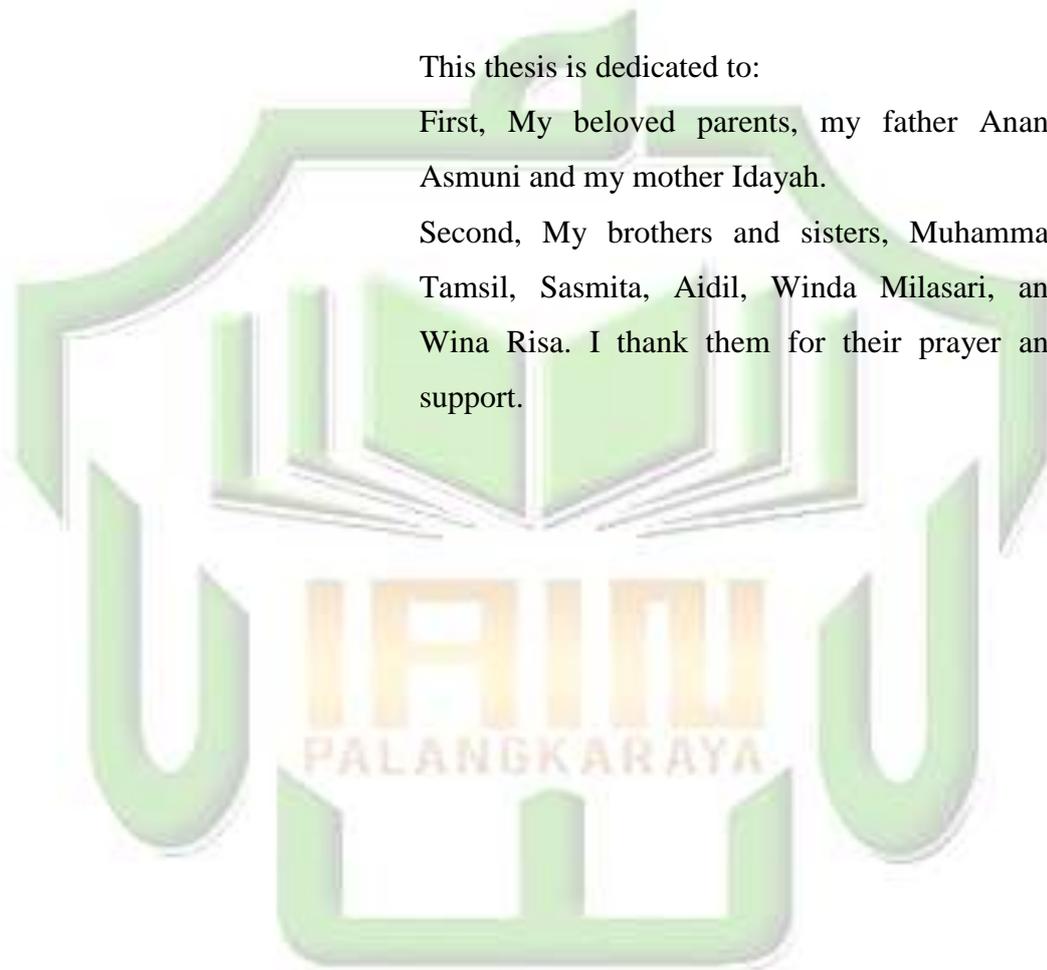
MOTTO AND DEDICATION

“Sciences is light, everyone who has science will be noble everywhere”

This thesis is dedicated to:

First, My beloved parents, my father Anang Asmuni and my mother Idayah.

Second, My brothers and sisters, Muhammad Tamsil, Sasmita, Aidil, Winda Milasari, and Wina Risa. I thank them for their prayer and support.



DECLARATION OF AUTHENTICATION

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Herewith, I:

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Declare that:

1. This thesis has never been submitted to any other tertiary education institution for any other academic degree.
2. This thesis is the sole work of author and has not been written in collaboration with any other person, nor does it include, without due acknowledgement, the work of any other person.
3. If at later time is found that this thesis is a product of plagiarism, I am willing to accept any legal consequences that may be imposed to me.

Palangka Raya, November 17th 2017

Yours Faithfully,



MAULANA IKSAN

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ABSTRACT

Iksan, Maulana. 2017. *The Effect of SQ4R toward Undergraduate Students' Critical Reading Comprehension*. Thesis, Department of Language Education, Faculty of Teacher Training and Education, State Islamic Institute of Palangka Raya. Advisor: (I) Santi Erliana, M. Pd., (II) Zaitun Qamariah, M. Pd.

Keywords: *Strategy, Critical Reading, Comprehension*

This study was conducted in 2017 and it was aimed to measure the effect of SQ4R reading strategy toward undergraduate students' critical reading comprehension at State Islamic Institute of Palangka Raya. There were 28 students, consists of students from fifth semester (15 students from class A and 13 students from class C), chosen as subject of the study by cluster sampling. The study included in quantitative research and the type was quasi experimental design. The data collecting technique used was test.

Based on the findings, the students' achievement got improved significantly when the material given by using SQ4R strategy. H_a was proved where T count was bigger than T_{table} with 5% ($-2,706 > 2,056$) at degrees of freedom 26. H_o was rejected since $P_{value} < 0,05$ ($0,017 < 0,05$). It meant there was difference between average score of experimental group and average score of control group. Value of t_{observ} was negative that means experimental group's score was lower than control group. The difference of average (mean difference were $-6,65$ (21,35-28), and the difference was $-12,02$ until $-1,29$). The fact really proved that SQ4R increased students' critical reading comprehension since it gave positive effect toward the students' achievement in reading lesson, even the score as the experimental group was lower than control group. Based on the study, the reading strategy was recommended to be applied by students in reading as the process to be the critical reader.

ABSTRAK

Iksan, Maulana. 2017. *Efek penggunaan Strategi Membaca SQ4R terhadap Pemahaman Membaca Kritis Mahasiswa S1*. Skripsi, Jurusan Pendidikan Bahasa, Fakultas Tarbiyah dan Ilmu Keguruan, Institut Agama Islam Negeri Palangka Raya. Pembimbing: (I) Santi Erliana, M. Pd., (II) Zaitun Qamariah, M. Pd.

Kata Kunci: *Strategi, Membaca Kritis, Pemahaman*

Penelitian ini dilaksanakan pada tahun 2017 dan bertujuan untuk mengukur pengaruh strategi membaca SQ4R terhadap pemahaman membaca kritis mahasiswa S1 pada Institut Agama Islam Negeri Palangka Raya. Penelitian ini melibatkan 28 mahasiswa, terdiri atas mahasiswa semester lima (15 mahasiswa dari kelas A dan 13 mahasiswa dari kelas C), yang dipilih sebagai subjek penelitian dengan menggunakan teknik *cluster sampling*. Penelitian ini termasuk dalam penelitian kuantitatif dengan menggunakan *quasi experimental design*. Pengumpulan data menggunakan teknik test.

Berdasarkan data yang diperoleh, ditemukan bahwa pencapaian mahasiswa menunjukkan peningkatan yang signifikan ketikan materi yang diberikan menggunakan strategi SQ4R. Ha membuktikan di mana T hitung lebih besar dari t-tabel dengan 5% ($-2,706 > 2,056$) pada derajat kebebasan 26. H_0 ditolak karena $P_{\text{value}} < 0,05$ ($0,017 < 0,05$). Artinya, ada perbedaan antara nilai rata-rata dari kelas eksperimen dan nilai rata-rata kelas control. Perbedaan nilai rata-rata (*mean difference*) adalah -6,65 ($21,35 - 28$), dan perbedaannya antara -12,02 sampai -1,29. Hasil penelitian ini membuktikan bahwa SQ4R telah meningkatkan pemahaman membaca kritis mahasiswa karena memberikan pengaruh positif terhadap pencapaian mahasiswa dalam pelajaran membaca, meskipun nilai dari kelas eksperimen lebih rendah dari kelas control. Berdasarkan penelitian tersebut, strategi membaca SQ4R dianjurkan untuk digunakan oleh mahasiswa dalam proses untuk menjadi pembaca yang kritis.

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10. All of my friends of TBI 2013.

Thank you for the guidance, support, suggestion, and advices during the study. We realize that this study far of perfect, therefore some constructive suggestion and critic are hoped for next perfected study.

Palangka Raya, December 2017

Maulana Iksan
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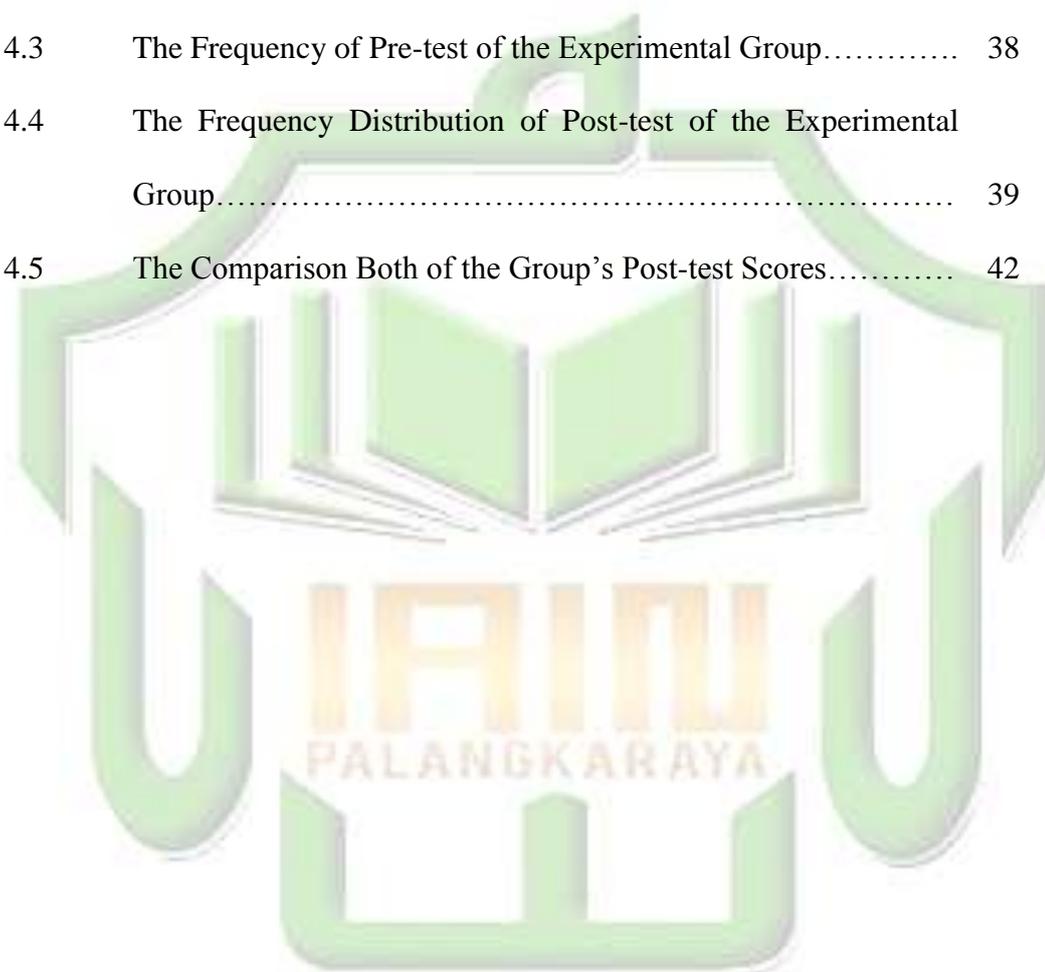
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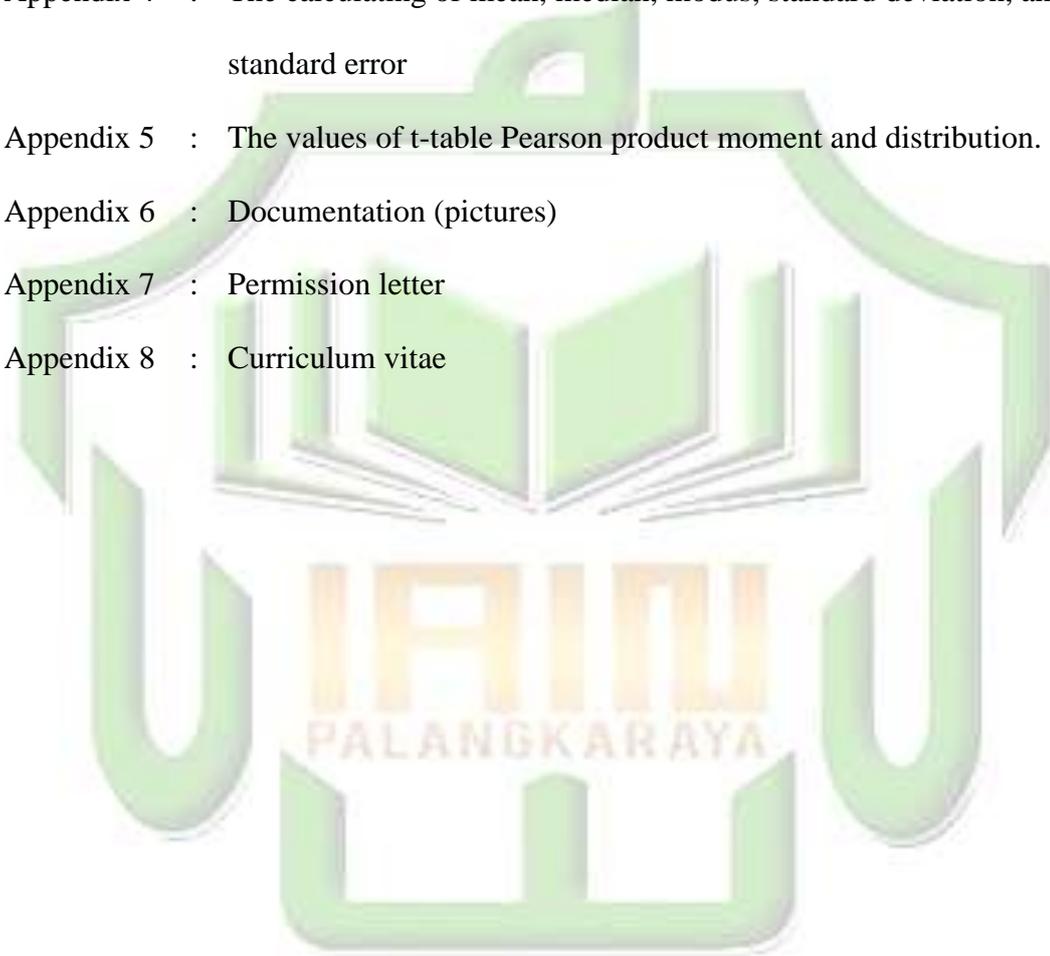
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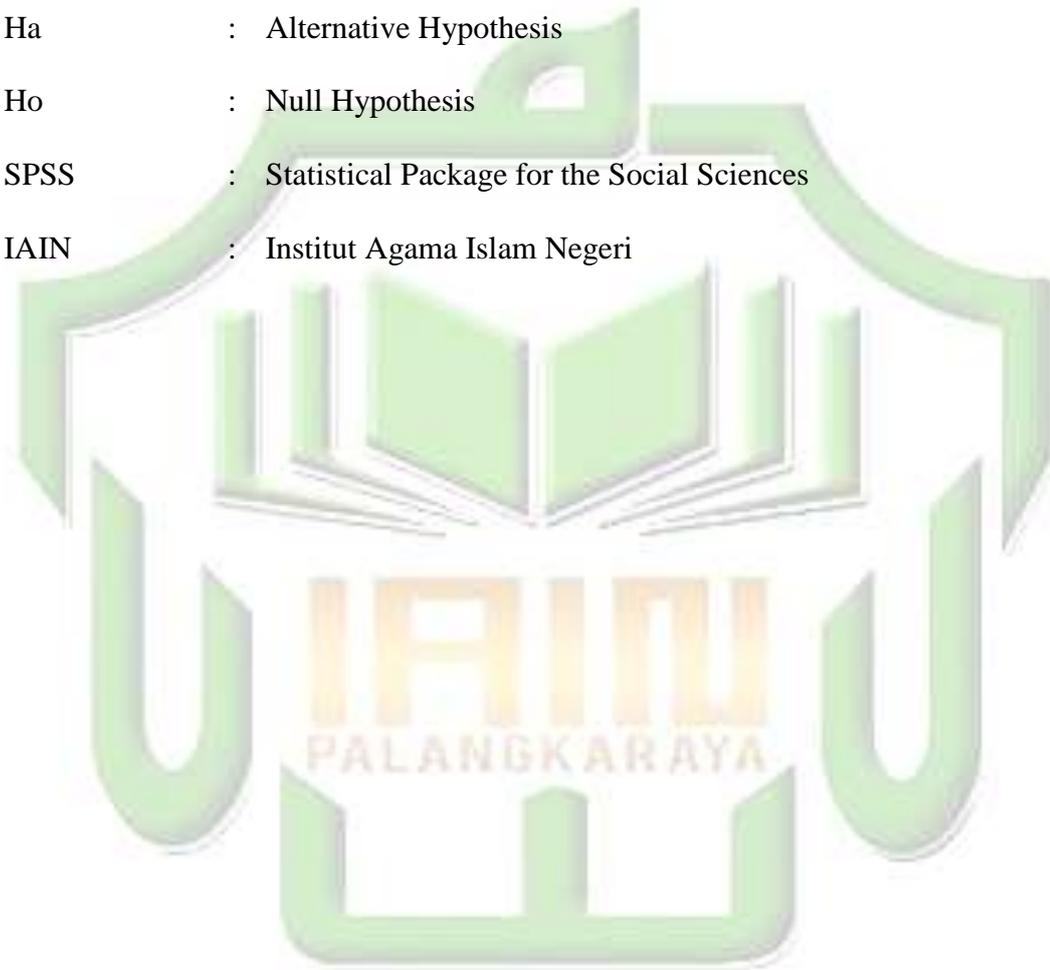
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LIST OF ABBREVIATIONS

SQ4R	: Survey, Question, Read, Recite, Reflect, Review
df	: Degree of freedom
SD	: Standard Deviation
SE	: Standard Error
Ha	: Alternative Hypothesis
Ho	: Null Hypothesis
SPSS	: Statistical Package for the Social Sciences
IAIN	: Institut Agama Islam Negeri



CHAPTER I

INTRODUCTION

This chapter discusses background of the study, research problem, objective of the study, hypothesis of the study, assumption, scope and limitation, significance of the study, and definition of key term. This part considers providing sufficient background information.

A. Background of the Study

Education is directed for solving nation's problem until now, so we do not only need quantity but also quality of education product. Priantari (2013:756) stated quantitatively, we can say that education in Indonesia have been improve (reading and writing skill reach 67,24%), but qualitatively education in Indonesia is still low. Whereas, education quality is determined from quality of graduations of education institute. In State Islamic Institute of Palangka Raya (IAIN Palangka Raya) provides a critical reading subject in lecturing to handle the problem and to improves students quality in critical readers.

Perez (2010) stated reading is a crucial element of learner study in higher education. As the comparison an alumnus of IAIN of Palangka Raya, Lisna in her thesis said that reading is one of language skill that important to be mastered by students to enrich insight. Reading is a means of language acquisition, of communication, and of sharing information and ideas. Reading is a significant activity specifically for students of IAIN Palangka Raya, for each part of their life in academic atmosphere involves it.

Islamic religion commands the believers to read. Reading is the first command was delivered to Prophet Muhammad. Based on Quran, Allah said in surah Al-Alaq verse 1-5 as the following:

أَقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ﴿١﴾ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ ﴿٢﴾ أَلَمْ يَكُنْ الْأَكْرَمُ ﴿٣﴾

الَّذِي عَلَّمَ بِالْقَلَمِ ﴿٤﴾ عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ ﴿٥﴾

“Read in the name of your god who created you. He created human from clod of blood. Read, and your god is very soft touch, that taught (human) by word). He teaches human anything that they do not know”. (al-Qur’an digital)

Verses above are the real evidence that Islam commands the followers to read and write as the way to enrich insight, science, and knowledge. The verses are the first message from Allah to Prophet Muhammad saw. Islam said that reading and writing is important fourteen centuries ago.

Pirozzi (2003: 325) stated that critical reading can be defined as very high-level of written material requiring interpretation and evaluation skill that enable the reader to separate important from unimportant information, distinguish between facts and opinions, and determine a writer’s purpose and tone. It also entails using inference to go beyond what is stated explicitly, filling in informational gaps, and coming to logical conclusions.

To practicing critical reading skill a reader apply using inference, distinguishing between facts and opinions, and uncovering purpose and determining tone. Based on an experience during study in IAIN Palangka Raya most students do not read and think critically. Students have not been critical readers. They are seldom to give and answer question, analyze argumentations

and give opinions, proof the facts, observe, make deductions, give definitions, fuse lean and ability to make a decision, and so on. Rifqiyana (2015) stated there are 12 indicator of critical thinking included in 5 steps, namely basic clarification, the bases for decision, inference, advanced clarification and supposition and integration. In the reality, most of student wait explanations and conclusion from lectures when comprehend a text that need critical thinking such as argumentative text. Not only critical thinking, but also Students' reading skills are not optimal yet. Students still cannot read well. Most of them do not comprehend all the content of the text and cause the goal cannot be reach well.

Based on experience and observation, SQ4R reading strategy never been taught in reading class. The writer knew after questioning with fifth and seventh English department students of IAIN Palangka Raya. The questioner was conducted on 30th November 2016. There are no students know the reading strategy. They only know SQ3R reading strategy. Most students just knew this reading strategy. It is appropriate to be tried on student because of having some advantages. One of the crucial parts is by reflecting on the reading, students begin to think critically what they have learned and have yet to learn about the topic. This type of critical thinking is necessary if students are to become mature readers. Reflect on what has been read also helps students retain understanding for longer periods of time. The more students reflect on text the longer they will remember it and the more likely they will be able to use the knowledge they have trained (Glass & Zygouris, 2005). Pujiono (2012) stated that critical thinking is thinking process to analysis what the implication of written information, example

to inference or to find the implication, to evaluate, and to give valuation towards problem is faced. Critical thinkers are always uncertain the truth of the information that they get. To get the authentic one, critical thinkers will research, analysis, find the logical, and restate the arguments and give valuation. Based on the background of the study, the study will observe **“The Effect of SQ4R toward Undergraduate Students Critical Reading Comprehension.**

Based on the description above, this study will conduct the research, for several reasons: first, SQ4R is new among students which have not been tested in State Islamic Institute of Palangka Raya. Then, this study will test this reading strategy, especially SQ4R in reading comprehension towards students' critical thinking at IAIN Palangka Raya. The second, in SQ4R reading method found advantage (support) towards critical thinking. This indication can be found in one of the steps, namely at reflecting section. An article mentioned, that critical thinking is necessary if students are to become mature readers. Reflecting on what has been read also helps students retain understanding for longer periods of time (Glass and Zygouris-Coe, 2005: 3).

B. Research Problem

This study formulates the problems of the study based on the background of the study as stated in the following:

1. Is there any significant effect of SQ4R toward undergraduate students' critical reading comprehension?

C. Objectives of the Study

1. To measure the significant effect of SQ4R toward undergraduate students' critical reading comprehension.

D. Hypothesis of the Study

1. Ha: There is significant effect of SQ4R toward undergraduate students' critical reading comprehension.
2. H0: There is no significant effect of SQ4R toward undergraduate students' critical reading comprehension.

E. Assumption

SQ4R reading strategy is assumed to have effect on undergraduate students' critical reading comprehension.

F. Scope and Limitation

The study belongs to experimental research design. Because the study uses quasi experiment, so this study will not explain something probably influence the result because of decision of the class. The focus of this study is students' critical reading comprehension. The study will not elaborate students' attitude and psychology on the treatment process but this study will try to make them become critical readers to comprehend the author purpose. This study tries to increase students' critical reading comprehension in understanding authors purpose in a text. The instrument is set to measure it. The instrument will not try to describe the students' psychology. The experiment and control class are fifth semester students at department of language education study program of English education of IAIN Palangka Raya.

G. Significance of the Study

The result of this study to measure the effect of SQ4R toward undergraduate students' critical reading comprehension. This study is expected to be one of references for anyone who wants to improve student's critical reading

comprehension. The writer wants to participate in rising students' spirit to read more and make it as a way to motivate students. Students are hoped going to be critical readers. It shall be contribution for next research, Institution, and our home (nation).

H. Definition of Key Terms

1. SQ4R

One of strategies can be able to improve metacognitive skill is SQ4R (Survey, Question, Read, Reflect, Recite, and Review).

2. Reading Comprehension

Reading comprehension is a process that involves actively constructing meaning among the parts of the text, and between the text and personal experience.

3. Critical Reading

Critical reading is an essential part of the information gathering process that is required to create an academically sound assignment. Critical reading goes two steps further.

4. Strategy/technique/methods

These terms are used interchangeably by various authors to indicate a distinct method of delivering content.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter will present related studies, reading comprehension, definition of reading strategy, SQ4R and critical reading.

A. Related Studies

There are some related studies to this research.

The first, Ferez (2010) told the results that critical thinking involves reasoning, thus students trained to be critical thinkers, reason about what they are learning to analyze information with logic. They understand that there is a difference between constructing knowledge by using logic or by memorizing.

The second, Putra (2013) Pengaruh Model Pembelajaran SQ4R Terhadap Keterampilan Membaca dalam Pembelajaran Bahasa Indonesia Siswa Kelas V SD Gugus I Denpasar Selatan. This study aimed to know the different effects of SQ4R (survey, question, read, reflect, recite, review) teaching model on reading skill in Indonesian subject V grade elementary students of Gugus I South Denpasar Academic Year 2012/2013. The results show significant differences of student's achievement.

The third, Kinanthi (2013) conducted a thesis that entitle Keektifan Penggunaan Metode SQ4R dalam Pembelajaran Kerampilan Membaca Bahasa Jerman di SMA Negeri 1 Sayegan Sleman. The study was aimed to know significant difference of students' achievement in Germanic reading skill in SMA Negeri 1 of Sayegan Sleman between students who was taught with SQ4R method and conventional method, and also this study was aimed to know the effectiveness

of SQ4R in Germanic reading skill teaching on eleventh graders at SMA Negeri 1 of Sayegan Sleman. The results show significant differences of student's achievement between using SQ4R method and conventional method, and using SQ4R method was effective in Germanic reading skill teaching on eleventh students of SMA Negeri 1 of Sayagan Sleman.

The fourth, Pardede (2013) in his unpublished thesis that entitle Efektivitas Metode SQ4R (Survey, Question, Read, Reflect, Recite, Review) dalam Pembelajaran Memahami Teks Feature Kelas VII SMP Negeri 1 Sidikalang Tahun Pelajaran 2012/2013. This study aims to determine the effectiveness of the method SQ4R (Survey, Question, Read, Reflect, recite, Review) in learning to understand the text feature class VII SMP Negeri Sidikalang many as 253 people. The result shows that the method SQ4R (Survey, Question, Read, Refect, Recite, Review) is more effective to apply in learning to understand the text feature class VII SMP Negeri 1 Sidikalang learning year 2012/2013.

The fifth, Negara (2014) Model Pembelajaran Kooperatif Tipe SQ4R Berbasis Keterampilan Proses Berpengaruh Terhadap Hasil Belajar IPA Siswa Kelas V SD Gugus Letkol Wisnu. This study aimed to find out of significant deferences of the learning result of natural science between the student who was learned through cooperetive teaching and learning model of type SQ4R based on process skill with the student who was learned with conventional teaching and learning at the student grade V SD Gugus letkol Wisnu North Denpasar. The results show significant differences of student's achievement.

The sixth, Rustiana (2014) The Effect of Applying Contextual Learning with SQ4R on Improving Students' Mathematical understanding and Critical Thinking in SMP Negeri 8 Kota Tasikmalaya. The results show significant differences of student's achievement.

The seventh, Novita (2015) Improving Students' Reading Comprehension on Recount Text by Using SQ4R and Media Booklet. The study was conducted to help students to improve understanding detail information of generic structure of text with easier. The results show significant differences of student's achievement.

The eighth, Runiatun at al. (2016), a thesis entitled Penggunaan Strategy SQ4R (Survey, Question, Read, Reflect, Recite, Review) untuk Meningkatkan Keterampilan Membaca Pemahaman. The purpose of this research is to improve reading comprehension skill by applying SQ4R strategy among 5th grade students Elementary School of SDN Soropadan. Found that the use of SQ4R strategy was able to increase students' reading comprehension on V students of SDN Soropadan No. 108 Surakarta academic year 2015/2016.

The ninth, Gurbuz (2017) Effect of the SQ4R Technique on the Reading Comprehension of Elementary School 4th Grade Elementary School Students. The study is aimed to examine the effect of SQ4R technique of the reading comprehension ability of elementary school 4th grade students. This result shows that reading comprehension strategy has a positive and significant impact on reading comprehension skill.

Based on the previous studies above, the study has different subject and object of the study. In this study the subject is the fifth semester students in

English department of IAIN Palangka Raya and the object will be taught critical reading by using SQ4R technique and without SQ4R technique (self monitoring using question).

In this study will be focused to measure the effectiveness of using SQ4R technique in reading comprehension towards critical reading of the students in English Department of IAIN Palangka Raya. In this case, it is about how the activities of the technique and how the effectiveness of the technique using SQ4R technique by the teacher to increase critical reading. This study also focused on experimental study.

B. Reading Comprehension

There are varieties of definitions of reading comprehension stated by experts. Brown (2001: 306) stated that reading comprehension is primarily a matter of developing appropriate, efficient comprehension strategies. According to Nunan (1998: 67), reading comprehension is a process of relating the new to the known based on the similar notion. Fauziati (2002: 139) the reading processes are cycles of sampling, predicting, testing, and confirming. By guessing, the readers predict, test, and confirm the content of the text. This implies that the learner's background knowledge is important to help understand the text.

C. Definition of Reading Strategy

In oxford advanced learners dictionary is defined that reading is to look at and understand the meaning of written or printed words or symbol, to discover or something in particulars way, away in which something is interpreted or understood (Kustiawati, 2011: 13).

a. Kind of Reading Strategy

There are several kinds of reading technique that used in academic world. Wulandari (2012: 32) stated there are some reading techniques that have been used by some experts before. They are:

1. Skimming strategy,
2. Scanning strategy,
3. Intensive reading,
4. KWL chart,
5. SQ3R strategy, and
6. SQ4R strategy.

Here are general discussions about the techniques above.

1) Skimming

Wulandari (2012: 33) stated skimming is a reading technique that allows us to get the main ideas and gather the general information of a text. The procedure of skimming is: first, we can look at the table of the content, the summary, the title, the sub-title, the headlines, or the sentences that contain the key words. After getting the point of the text, skimming may be followed by intensive reading to comprehend more about the text we are reading. In skimming, the students are required to find the general idea of text. When skimming, one's eyes go quickly into sentences of the paragraph containing main ideas. Gebhard in Sabarun's article (2012) stated that the activity for skimming is, for example, to determine the best title of a passage. In this sense, students have to read the passage quickly to get its general information.

2) Scanning

Wulandari (2012: 33) stated scanning is a reading technique that is used to find the specific information from a text without reading the whole text. When using scanning technique, we go through the text, and read it fast to search for the passages that contain the specific information we need. In scanning, the students are expected to locate facts of specific information. Scanning exercises may ask students to find a particular date, name, number, or definition of a key concept or to list a certain number, of supporting details. The purpose of scanning is to extract specific information without reading the whole text. Skimming and scanning are reading techniques used for effective reading.

3) KWL chart

Wulandari (2012:34) explained KWL chart stands for ‘what I *know*’, what I *want* to know’, and ‘what I have *learned*’. This is a three-step procedure for helping students access the appropriate background knowledge when they are reading informational text. The use of this chart develops students’ metacognitive skills, keeps them focused and interested during reading, and gives them a sense of accomplishments. The procedures of KWL chart are: first, the students are first asked to access what they know about a given topic (their prior knowledge). As the students are brainstorming the ideas, the teacher can record these on the chalkboard or chart paper. Next, they are asked to come up with the learning goals, or what they want to learn about the given topic. Last, students write down what they have learned, and check to see whether all of their “want to know” questions have been answered. They can also have further reading. During this

procedure the students are engaged in brainstorming, generative and organizing their ideas, specifying questions, checking what they have learned and guided further reading.

4) SQ3R

According to Sabarun (2012) SQ3R strategy is a five step system developed by Francis P Robinson. Each of the steps stands for Survey, Question, Read, Recite, and Review. SQ3R strategy is developed on the basis of schemata theory. The basic assumption of schemata theory is that what a reader knows affects what he/she understands (Rumerhart, 1985). In this sense, a reader's own previously acquired knowledge or reader's background knowledge can influence his/her understanding of a text. The student's background knowledge and the previously knowledge structure is call schemata.

The next is SQ4R technique. It stands for survey, question, read, reflect, recite, and review.

The domain of the study is about SQ4R technique. In this study, it is focused to the use of SQ4R technique in reading comprehension towards students' critical thinking which is showed by the scores they gain. The next will be explained about SQ4R technique.

D. SQ4R

This part will discuss about the definition of SQ4R technique, the steps of SQ4R, the strengths and weaknesses of SQ4R technique, and the procedure of SQ4R technique in a reading class.

1. Definition of SQ4R Technique

According to Rustiana (2014) one of strategies can be able to improve metacognitive skill is SQ4R (Survey, Question, Read, Reflect, Recite, and Review).

a. Introduction of SQ4R

Trianto (2009: 151) stated learning method SQ4R (Survey, Question, Read, Reflect, Recite, Review) sparked off by Thomas and Robinson on 1972. This method consists of six steps, namely: Survey, Question, Read, Reflect, Recite, and Review. Each of the steps supports each other.

b. Parts of SQ4R

1). Survey

Readers think about the title. They should guess what will be included in the chapter. Then readers read the introduction. In this part, the main ideas are presented. After that readers read the summary. Here is the relationship among the main ideas. Next, readers read the main heads. Here are the main ideas. Finally, readers have to determine where in the sequences of ideas each the headings are located.

2). Question

Readers turn headings and subheadings into questions. Next readers ask who, what, where, when, why, and how about the headings. Readers may use the authors' questions at the beginning or end of the chapter, and use a workbook or study guide for questions. Readers

have to havin a question in mind, results in improved concentration since readers are reading with a specific purpose in mind, reading for meaning and ways to decide which details are important and which are not.

3). Read

Next step, reader only read the material covered under one heading or subheading at a time, and look for the answer to the readers' questions, read ideas, not just words, take only minimal notes while reading, and read aggressively with the intent of getting answer of nothing supporting details and of remembering.

4).Reflect

Then take notes on each section as the Read and Recite steps are complete. The more organized and detailed the notes, the better for mastery of the material. Once again, readers use their own language.

5).Recite

Readers read the title of the information to be learned and turn it into a question, try to answer the question silently or aloud to themselves without reading, and readers read the information in notes to make certain that they recited it correctly.

6) Review

When the lesson has been read, readers look over their notes to get a bird's eye view of the various ideas and their relationships, check memory by covering up the notes and trying to recall the main points,

and when readers have a textbook on which readers are tested at mid-term and the end of the semester only, it is a good idea to review at the end of each week, gradually accumulating several chapters to review hence there is no need to “cram” for the exams (Nelson & Rachel, 2006:3).

c. SQ4R and Critical Thinking

One part of SQ4R, namely reflect there is a correlation. Information from the entire chapter or article is linked together in the reflection phase. This step helps students clarify their thinking and focus understanding. By reflecting on the reading, students begin to think critically about what they have learned and have yet to learn about the topic. This type of critical thinking is necessary if students are to become mature readers (Glass& Zygouris-Coe: 2005).

d. Strengths and Weakness of SQ4R

According to Kinanthi (2013:19) she stated the added value of this method is reading by this technique believed more satisfied, because this method can force someone more comprehend what they read, directed to the abstract or the implicit and explicit main content in books or text. Accept that, the steps in this method looks describing the science procedure, and hoped the information which have been learned saved well on a long term memory system.

1. The Procedures in Using SQ4R in Class Room

Table below are steps in SQ4R Strategy learning:

Table 2.1 Reading Strategy (SQ4R) Teaching Procedures

No	Researcher's Activity	Activity
1.	<p>INTRODUCTION</p> <ul style="list-style-type: none"> a. Explaining purpose of the study. b. Motivating the students. 	<ul style="list-style-type: none"> a. In learning process researcher inform the students purpose of the study. b. Researcher motivates students by telling the important of this material.
2.	<p>MAIN ACTIVITY</p> <ul style="list-style-type: none"> a. Presenting the material b. Learning SQ4R reading Strategy 	<ul style="list-style-type: none"> a. Describing the material will be learned. b. Giving a model of SQ4R reading strategy and explaining the steps, using an example from the material: <ul style="list-style-type: none"> 1. Survey Researcher recommend students to check the text, title, the body, terms, key words using color marking pen. 2. Question The second step, researcher gives clue or simple example, clear, relevant with part os the text have lighted by color marking pen. Number of question is depended on students' ability in understanding the text. 3. Read The third, teacher commends the students to read main content of the text, then actively search the answer based on the questions they have arranged.

		<p>4. Reflect</p> <p>The fourth step, during reading students cannot only remember but teacher helps them to connect known information that correlated in daily activity, teacher tries to use important words in the text. It is aimed to solve the problem in the text.</p> <p>5. Recite</p> <p>At the fifth step, teacher command students retell their answer and question that have been arranged, teacher trains students by the question to closed their book or note they have made, if the question cannot be answered students may continue to the next question and so on until the end of their questions.</p> <p>6. Review</p> <p>The final step, students are commanded to read their short note (abstract) they have made, reread all the text. If necessary student reread their question and answer shortly.</p> <p>c. Students under research guided, doing SQ4R skill, by doing on work sheet.</p> <p>d. Researcher let students give a question and answer each other about the text.</p>
3.	<p>CLOSING</p> <p>Summarizing the lesson</p>	<p>Researcher and student summarize the lesson together where researcher guides the student make it based on the material have been learned.</p>

E. Critical Reading

1. Definition of Critical Reading

Pirozzi (2003: 325) stated that critical reading can be defined as very high-level of written material requiring interpretation and evaluation skill that enable the reader to separate important from unimportant information, distinguish between facts and opinions, and determine a writer's purpose and tone. It also entails using inference to go beyond what is stated explicitly, filling in informational gaps, and coming to logical conclusions. Critical reading is an essential part of the information gathering process that is required to create an academically sound assignment. At its most basic level, critical reading involves not taking for granted anything people read. Whenever people read a journal article, or other piece of text, as readers need to be convinced by the author's argument (Skill Development Team, 2014).

2. Teaching Critical Reading

In critical reading process reader should think and comment about writer's message's and why writer about this subject. In this context, reader evaluate the text while reading, view the text about own knowledge. It is called by critical thinking habit. Critical reading is important for both critical thinking and provide most pleasure from reading. Reader who do not read critically generally accept the ideas in the text incontestable and memorize, reader who read critical watch out the text what it tell about, which idea support them and how the ideas describe (Gunes, 2014).

Textbooks on critical reading commonly ask students to accomplish certain goals: 1) to recognise an author's purpose, 2) to understand tone and

persuasive elements, 3) recognise bias. Notice that none of these goals actually refers to something on the page. Each requires inferences from evidence within the text:

- a. Recognising purpose involves inferring a basis for choices of content and language
- b. Recognising tone and persuasive elements involves classifying the nature of language choices
- c. Recognising bias involves classifying the nature of pattern of choice of content and language.

Critical reading is not simply close and careful reading. To read critically, one must actively recognise and analyse evidence upon the page. Critical readers thus recognise not only what a text says, but also how that text portrays the subject matter. They recognise the various ways in which each and every text is the unique creation of a unique author (Lewis, 2009: 10). In teaching critical reading students need strategies which can form and lead them to be critical readers.

Whatever students' reason for reading the paper, students' own critical assessment of it is very important. According to Lewis (2009: 10) one useful trick is to read the experimental results, the tables, and figures together with their legends, at least as closely as the main text. Another is to avoid reading the discussion section until readers have come with exclusively on the author's view. When readers read the abstract, they should ask themselves the question: "what controversy or orthodoxy does this research take as its starting point?" while the

abstract should give readers a brief summary of a paper's main findings, the introduction give some context to the research.

3. Critical Reading and Critical Thinking

According to Lewis (2009: 6), he distinguishes between critical reading and critical thinking in the following way:

- a. Critical reading is technique for discovering information and ideas within a text.
- b. Critical thinking is a technique for evaluating information and ideas, for deciding what to accept and believe.

Critical reading refers to careful, active, reflective, analytic reading. Critical thinking involves reflecting on the validity of what readers have read in light of readers' prior knowledge and understanding of the world. By these definitions, critical reading would appear to come before critical thinking: only once readers have fully understood a text (critical reading) can readers truly evaluate its assertions (critical thinking).

4. Critical Reading Activities

In actual practice, critical reading and critical thinking work together (Jones: 2009: 7). Activities to do with student to encourage and develop critical reading ability (Salisbury University).

- a. Previewing: *Learning about a text before really reading it.*

Previewing enables readers to get a sense of the text is about and how it is organized before reading it closely. This simple strategy includes seeing what readers can learn from the headnotes or other introductory material,

skimming to get an overview of the content and organization, and identifying the rhetorical situation.

- b. Contextualizing: *Placing a text, readers read in its historical, biographical, and culture context.*

When readers read a text readers read it through the lens of readers' own experience. Readers' understanding of the the words on the page and their significance is performed by what readers have come to know and value from living in a special period and place. But the texts readers read were all written in the past, sometimes in a radically different period and place.

To read critically, readers have to contexttualize, to recognize the differences between readers' contemporary values and attitudes and those represented in the text.

- c. Questioning to understand and remember: *Asking questions about the content.*

Hopefully students in some classes will as the teachers questions about the content of their readings, or at least the teachers will quiz them on what they are supposed to be reading. These questions should be designed to help students understand a reading and respond to it more fully, andoften this technique works when the questions are relevant and appropriately phrased. When students need understand and use new information though it is most beneficial if the teachers encourage them to write the questions that they are asking themselves as they read the text for the first time. With this strategy, they can write questions any time, but in difficult academic

readings, they will understand the material better and remember it longer if they write a question for every paragraph or brief section. Each question should focus on a main idea, not on illustrations or details, and each should be expressed in their own words, not just copied from parts of the paragraph.

- d. Reflecting on challenges to readers' beliefs and values: *Examining readers' personal responses.*

The reading that readers do for the class might challenge readers' attitudes, their unconsciously held beliefs, or their position on current issues. As people read a text for the first time, mark an X in the margin at each point where readers feel a personal challenge to their attitudes, beliefs, or status. Readers make a brief note in the margin about what they feel or about what in the text created the challenge. Readers should look again at the places they marked in the text where they felt personally challenged then they will see some patterns.

- e. Outlining and summarizing: *Identifying the main ideas and restating them in readers' words.*

Outlining and summarizing are especially helpful strategies for understanding the content and structure of a reading selection. Whereas outlining reveals the basic structure of the text, summarizing synthesizes a selection's main argument in brief. Outlining may be part of annotating process, or it may be done separately. The key to both outlining and summarizing is being able to distinguish between the main ideas and the

supporting ideas and examples. The main idea from the backbone, the strand that holds the various parts and pieces of the text together. Outlining the main ideas help readers to discover the structure. When readers make an outline, readers may not use the text's exact words. Summarizing begins with outlining, but instead of merely listing the main ideas, a summary recomposes them to form a new text. Whereas outlining depends on a close analysis of each paragraph, summarizing also requires creative synthesis. Putting ideas together again in readers' own words and in a condensed form shows how reading critically can lead to deeper understanding of any text.

- f. Evaluating an argument: *Testing the logic of a text as well as its credibility and emotional impact.*

All writers make assertions that they want readers to accept as true. As a critical reader, people should not accept anything at face value but to recognize every assertion as an argument that must be carefully evaluated. An argument has two essential parts: a claim and support. The claim asserts a conclusion an idea, an opinion, a judgment, or a point of view that the writer want readers to accept. The support includes reasons (shared beliefs, assumptions, and values) and evidence (fact, examples, statistics, and authorities) that give readers the basis for accepting the conclusion. When readers assess an argument, they are concerned with the process of reasoning as well as its truthfulness (these are not the same thing). At the most basic level, in order for an argument to be acceptable, the support

must be appropriate to the claim and the statements must be consistent with one another.

- g. Comparing and contrasting related readings: *Exploring likenesses and differences between texts to understand them better.*

Many of authors are concerned with the same issues or questions, but approach how to discuss them in different ways. Fitting a text into an on going dialectic helps increase understanding of why an author approached a particular issue or question in the way he or she did.

5. Critical Reading Test

According to Green (2006) stated critical reading tries to measure students' ability to reason using facts that are part of students' general knowledge. The assessment tests are essentially multiple-choice tests. Students' score depends upon how many correct answers students get within a definite period of time. Speed is important, but also is accuracy. Students have to pace themselves so that students do not sacrifice speed to gain accuracy (or sacrifice accuracy to gain speed). Critical reading test is harmony of both. Based on the explanation in teaching critical reading, some indicators can be used as indicators of critical readers are 1) students are able to recognise an author's purpose, 2) students are able to understand tone and persuasive elements, 3) students are able to recognise bias.

CHAPTER III

RESEARCH METHOD

In this chapter, writer will present research design, population and sample, research instrument, data collection procedure, and data analysis procedure.

A. Research Design

The design of this study is experimental design. According to Arikunto (2002:272) experimental study is a study which aimed to know there is or not the effect of variable studied. The study used the experimental design because this study measured the effect of using SQ4R reading technique in teaching critical reading. This experiment involved the comparison of the effects of particular treatment with that of a different treatment or without treatment. Quasi experimental design are similar to randomized experimental design in they involve manipulation of an independent variable, but different in that subjects are not randomly assigned to treatments group (Donald, 2010:316). This study used the quasi experiment, because this compared two ways and measured the effectiveness of teaching reading using that way. The characteristics of Quasi-Experimental Design are: 1). having more than one variable, 2). having control group, 3). independent variable is manipulated, 4). and the other variables are controlled (Sukardi, 2007:181).

The study used quasi experiment that means this study uses nonrandomized control group; pretest-posttest design is one of the most widely used quasi experimental design in educational research (Alison, 2005: 146). The typical group situation, the classes cannot be reorganized to accommodate the study. In

such this case, the groups already organized into classes. There were two groups in this model. They were experiment group and control group. Pre-test was given for both groups to measure the score of students before treatment given. Experiment group was given treatment by SQ4R reading strategy and control group taught without SQ4R reading strategy (Self Monitoring Using Question Strategy). Post-test was given for both groups to measure the students score after treatment is given.

**Table 3.1 Scheme of Quasi Experimental Design
Nonrandomized Control Group, Pretest-Posttest Design**

Group	Pre-test	Independent Variable	Post-test
E	Y1	X	Y2
C	Y1	-	Y2

Where:

C = control

E = experiment

Y1 = test

Y2 = test

X = independent variable

B. Population and Sample

1. Population

Arikunto (2000:108) stated population is defined as all members of any well defined class of people, events or subjects. If someone wants to research all of the elements in research area the research is call population research on survey study. It means population is all individuals from the data are collected. The population

of the research was the fifth semester of ESL students of English education department in State Islamic Institute of Palangka Raya academic year 2017-2018. There are about 34 students divide into 3 classes.

2. Sample

Sample is the small group that is observed (Ery, 2010: 316). Because of the large number of population, the study took samples as the representative population. Nunan (1992:232) stated sample is a subset of individuals or case from within a population. Students in the fifth semester of ESL students of English education department in State Islamic Institute of Palangka Raya academic year 2017-2018 as a sample to get the data for this study. This study took two classes to be sample; the first was experiment group and second was control group. This research took two classes, class C as an experimental and class A as a control group. Group sample already organized into classes, the classes cannot be randomized.

Table 3.2 Groups of Sample

No	Group	Class of Student	Number of students
1.	Experimental	C	13
2.	Control	A	15
Total			28

C. Research Instrument

1. Test

The study used test as instruments. This study used multiple choice test to measure students' critical reading. According to Djiwandono (2008: 41) multiple is an objective test where each question has more than two options.

From all the options only one as the correct answer. Experiment and control group were given pretest and posttest. The pretest was given before giving treatment. The function of pretest to know students' critical reading ability score before giving treatment. Posttest was given after giving treatment. The function of posttest to measure the improvement after giving treatment.

D. Instruments Try Out

The instrument was tried before applying to sample

Table 3.3 Content Specification of Items Tryout Instruments

Skill to Measure	Level of Comprehension	Percentage (%)	Number of the test items
Critical Reading Comprehension	Literal	48,75	1, 2, 3, 4, 6, 13, 14, 16, 17, 18, 19, 20, 21, 24, 27, 32,40, 46, 48, 50, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 66, 67, 68, 69, 71, 73, 74, 80.
	Critical	51,25	5, 7, 8, 9, 10, 11, 12, 15, 22, 23, 25, 26, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 47, 49, 51, 54, 60, 65, 70, 72, 75, 76, 77, 78, 79.

a. Research Instruments Reliability

Heaton (1974:155) Reliability is necessary of any good test: for it to be valid at all, a test must be reliable as measuring instrument. Sugiyono (2013:118) reliability is often defined as the consistency and stability of the data finding. From positive perspective, reliability typical is consider to be synonym with the consistency of the data produced by observation made by different

researchers, by the same researcher at different times, or by splitting a data set in two part. According to Johnson (2009:54), to measure the reliability of the whole test can be estimated by using Spearman-Brown formula.

Spearman-Brown formula:

$$r_{11} = \frac{2 \cdot r_b}{1 + r_b}$$

Where:

r_{11} = Reliability of instrument

r_b = Coefficient Correlation

After calculating the instrument reliability, than compared with r_{table} .

$r_{11} > r_{table} = \text{Reliable}$

$r_{11} < r_{table} = \text{Unreliable}$

The qualification of reliability (Qodir, 2009:88)

0,800 – 1,000 = Very High Reliability

0,600 – 0,799 = High Reliability

0,400 – 0,599 = Fair Reliability

0,200 – 0,399 = Poor Reliability

0,000 – 0,199 = Very Poor Reliability

b. Index Difficulty

Index of difficulty was used to know whether the tests are too easy or too difficult. So, to know it, this study used following formula:

$$FV = \frac{R}{N}$$

Where:

FV = Facility Difficult

R = Represent the Number of Correct Answer

N = The Number of Students Taking the Test

Classification:

$F.V$ 0,00 – 0,30 Difficult

$F.V$ 0,30 – 0,70 Fair

$F.V$ 0,70 – 100 Easy

c. Research Instruments Validity

Validity is the strength of the conclusions, inferences or propositions in case, see that class participation do not increase after the policy is established. Each type of validity would highlight a different aspect of the relationship between treatment (strict attendance policy) and observed outcome (increased class participation).

a. Face Validity

The types of face validity, if the test items look right to other testers, teacher, indicators and test. The types of test items, which would use in this research, can be suitable to the others at the same level is Student university.

For face validity of the test items as follow:

- 1) The test used reading test in reading test instruction.

- 2) The form of the test items answers the multiple choices.
- 4) The Language of items used English.
- 5) The critical reading test was suitable with syllabus of critical reading for fifth students of English Education Department of State Islamic Institute of Palangka Raya.

b. Content Validity

The test item in this study to measure the students' critical reading score. The instrument was adopted from Barron's Critical Reading Workbook for the SAT. The instrument was used for university level and used by lecturer in IAIN Palangka Raya. The instrument which used test, the tasting of content validity was done by asking the opinion of the judgment experts about the instrument is able to try out or not.

Table 3.4 Content Specification of Items Research Instruments

Skill to Measure	Level of Comprehension	Percentage (%)	Number of the Test Items
Critical Reading Comprehension	Inferential	57,5	1, 2, 3, 5, 8, 9, 10, 11, 12, 13, 17, 22, 24, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36
	Critical	42,5	4, 6, 7, 14, 15, 16, 18, 19, 20, 21, 23, 25, 28, 37, 38, 39, 40

c. Construct Validity

To measure instrument validity, this study used formula of Product Moment by Pearson (Sudijono, 2005:216):

$$r_{xy} = \frac{N \sum xy (\sum x)(\sum y)}{\sqrt{\{N \sum x^2 - (\sum x)^2\} \{N \sum y^2 - (\sum y)^2\}}}$$

Where:

r_{xy} : Total coefficient of correlation

$\sum x$: Total value of score X

$\sum y$: Total value of score Y

$\sum xy$: Multiplication result between score X and Y

N : Number of students

According to Ridwan (2010:110) the distribution of t_{table} at alpha 5% and the degree of freedom (n-2) with the measurement of validity using the following criteria:

$$t_0 > t_t = Valid$$

$$t_0 < t_t = Invalid$$

0,800 – 1,000 = Very High Validity

0,600 – 0,799 = High Validity

0,400 – 0,599 = Fair Validity

0,200 – 0,399 = Poor Validity

0,000 – 0,199 = Very Poor Validity

E. Data Collection Procedure

In collecting the data of this study, this study took the data from pre-test and post-test. Pre-test is given to the subjects before doing teaching and learning process (treatment). Meanwhile, post-test was given after applying teaching and learning process (treatment).

In this study was going to apply steps as follow:

1. A pre-test was given to both classes (experimental and control) class.
2. The writer checked the result of pre-test of experimental and control class.
3. After the pre-test given, the writer taught the students in experimental class by using SQ4R reading strategy and control class without using SQ4R reading strategy (Self Monitoring Using Question Strategy).
4. Then, the students did last critical reading test in the post-test.
5. The posttest was evaluated and analyzed the obtained data from mean of post-test score both of the class.
6. The results were interpreted in statistical data.
7. Finally, the students' scores were compared in the pre-test and post-test. It was done to know whether the students' scores in experimental class were higher or not than students' scores in control class.

F. Data Analysis Procedure

The Method of data analysis uses the statistical procedures. The formula that was used is a t-test. The purpose was to find the significant differences of critical reading ability between experimental group and control group.

The data of this study was students' critical reading ability score. Therefore, the data were in quantitative data. The data were analyzed by means of inferential statistics. This statistical analysis was suitable to answer the research problem.

1. The research gave test to the students of fifth semester of English Education Department of State Islamic Institute Palangka raya.
2. The research collected the data of the students' test result.
3. The research gave score the students' test results by using formula.

$$\text{Score} = \frac{\text{Frequency of correct answer}}{\text{Number of items}} \times 100$$

4. The research tabulated the data into the distribution of frequency of score table, then looking for the mean, median and modus of students' score, standard deviation, and standard error of experiment group and control group.
5. The research discussed and concluded the result of data analysis.
6. Normality Test

This test was used to know normality of the data. In this study, the normality was to tested by using SPSS 17.0 program using Spharo Wilk with level of significance 5%. If the calculation result of asymptotic significance is higher than α (5%), it means the distribution data is normal. The other way, if the result of asymptotic significance is lower than α (5%), it means the distribution data is not normal.

7. Homogeneity Test

For knowing whether experimental and control group have relatively same variant in common or not is the function of homogeneity test. The study used SPSS 17.0 program, Levene's testing with level of significance α (5%). If in calculating found the result is higher than 5% degree of significance, it means H_a is accepted. So, both of groups are homogeneous.

8. Testing Hypothesis

For testing the hypothesis, the study used T-test statistical with level of significance 5%. Because the sample is less than 30 students, so for testing the hypothesis the study used t-test. T-test was used to measure whether SQ4R strategy was effective to increase students' critical reading scores.

The formula that used is based on the determination of F_{value} .

Formula:

$$F = \frac{S_1^2}{S_2^2}$$

$$df1 = k - 1$$

$$df2 = n - k$$

Where:

F: Homogeneity

df1 : value of F_{table} based on number of variable

df2 : degree of freedom

k : number of variable

n : number of sample

Formula:

If $F_{\text{value}} > F_{\text{table}}$ = equal variance:

$$t_o = \frac{Mx_1 - Mx_2}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 2)s_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

If $F_{\text{value}} < F_{\text{table}}$ = unequal variance:

$$t_o = \frac{Mx_1 - Mx_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Where:

$Mx_1 - Mx_2$: The difference of two means

s^2 : Variance

n : Number of students

If $T_{tes} \geq T_{table} = H_a$ is accepted, H_0 is rejected

If $T_{tes} \leq T_{table} = H_0$ is accepted, H_a is rejected

9. Interpreted the result of t-test

According to Sudijono (1987:278) the degree of freedom (df) was calculated by using following formula:

$$df = (n_1 + n_2 - 2)$$

Where:

df : Degree of freedom

n_1 : Number of subject group 1

n_2 : Number of subject group 2

2 : Number of variables

10. Making conclusion based on data analysis obtained
11. Comparing the data used SPSS 17.0 program.
12. Finally, discussing and concluding.



CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

This chapter discusses the data that had been obtained from the research in the field. It contains data presentation, research findings and discussion.

A. Data presentation

Here, the data will be described data improvement students' critical reading comprehension after and before taught by using SQ4R strategy.

1. The Result of Pre-Test Score of the Control and Experiment Group

In this part, the data of control group consisted score the pre-test, the post-test, and the comparison scores. Pre-test and the result of control group pre-test conducted on Tuesday October 4th in class A at 13.00-14.40 pm. Post-test was conducted on Tuesday October 31st at 13.00-14.40 pm. The data are presented below.

Table 4.1 the Comparison of Pre-test and Post-test Score of Control Group

No	Initial	Score		
		Pre-test	Post-test	Different
1	ENA	25	40	15
2	AR	37,5	25	-12,5
3	RDM.	22,5	22,5	0
4	YQ	45	25	-20
5	MI	35	30	-5
6	NH	25	32,5	7,5
7	ZSN	42,5	47,5	5

8	MH	17,5	17,5	0
9	AS	25	25	0
10	NF	22,5	27,5	5
11	ARS	20	30	10
12	ME	20	32,5	12,5
13	AW	25	25	0
14	IR	15	22,5	7,5
15	YSPSP	22,5	17,5	-5
SUM		400	420	
Highest Score		45	47,5	
Lowest Score		15	17,5	
Mean		26,67	28	
Standard Deviation		47,9	40,15	
Standard Error		12,81	10,74	

The table above described the comparison of critical reading comprehension score between pre-test and post-test achieved by control group. First, in pre-test score there was 1 student get score 15. There was 1 student gets score 17,5. There were 2 students get score 20. There were 3 students get score 22,5. There were 4 students get score 25. There was 1 student get score 35. There was 1 student get score 37,5. There was 1 student get score 42,5. There was 1 student get score 45.

Second, in post-test score there were 2 students get score 17. There were 2 students get score 22,5. There were 4 students get score 25. There was 1 student get score 27,5. There were 2 students get score 30. There were 2 students get score 32,5. There was 1 student gets score 40. There was 1 student gets score 47,5. The highest score from pre-test was 45 and the lowest score was 15. Meanwhile, the post-test had the highest score was 47,5 and the lowest score was

17,5. If it is seen from the total score, the pre-test and the post-test have improvement in score before and after getting the treatment.

For the table of pre-test above, it can be seen that students' score (100%) were under score 50. The process to find mean, standard deviation, and standard error is in appendix.

a. The Result of Pre-test Score of Control Group (Class A)

Based on the data above, it has been known that the highest score was 45 and the lowest score was 15 in pre-test session. For determining the range of score, the class interval, and temporary, the writer calculated the pre-test scores of the control group using following formula (Sudijono, 2008:52):

The highest score (H) = 45

The lowest score (L) = 15

The range f score (R) = $H - L + 1$

$$= 45 - 15 + 1$$

$$= 30 + 1$$

$$= 31$$

The class interval (K) = $1 + 3,3 \log n$

$$= 1 + 3,3 \log (15)$$

$$= 1 + 3,88$$

$$= 4,88$$

$$= 5$$

Interval of Temporary (I) = $\frac{R}{K} = \frac{31}{5} = 6,2$

Based on the calculation, the range of score was 31, the class interval was 5, and interval of temporary was 6. Beneath was the table of frequency distribution:

Table 4.2 Frequency Distribution of the Pre-test Score of Control Group

Class (K)	Interval (I)	Frequency (F)	Mid Point (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	40 – 45	2	42,5	39,5 – 45,5	13,33	100
2	34 – 39	2	36,5	33,5 – 39,5	13,33	86,67
3	28 – 33	0	30,5	27,5 – 33,5	0	73,34
4	22 – 27	7	24,5	21,5 – 27,5	46,67	73,34
5	15 – 21	4	18	14,5 – 21,5	26,67	26,67
		$\Sigma F = 15$			100	

The distribution of students' score in pre-test of control group can be seen in following figure.

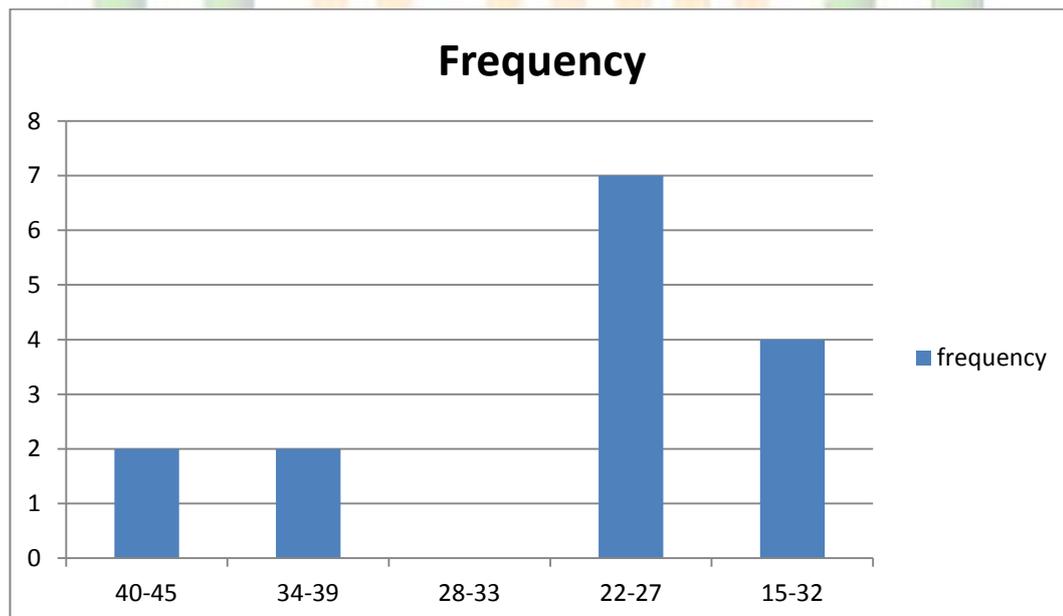


Figure 4.1 The Frequency Distribution of Pre-test of the Experimental Group

b. The Result of Post-test Score of Control Group (Class A)

Based on the data above, it has been known that the highest score was 47,5 and the lowest score was 17,5 in post-test session. For determining the range of score, the class interval, and temporary, the writer calculated the pre-test scores of the control group using following formula:

$$\text{The highest score (H)} = 47,5$$

$$\text{The lowest score (L)} = 17,5$$

$$\text{The range f score (R)} = H - L + 1$$

$$= 47,5 - 17,5 + 1$$

$$= 30 + 1$$

$$= 31$$

$$\text{The class interval (K)} = 1 + 3,3 \log n$$

$$= 1 + 3,3 \log (15)$$

$$= 1 + 3,881$$

$$= 4,881$$

$$= 5$$

$$\text{Interval of Temporary (I)} = \frac{R}{K} = \frac{31}{5} = 6,2 = 6$$

Based on the calculation, the range of score was 31, the class interval was 5, and interval of temporary was 6. Beneath was the table of frequency distribution:

Table 4.3 Frequency Distribution of the Post-test Score of Control Group

Class (K)	Interval (I)	Frequency (F)	Mid Point (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	42,5 – 47,5	1	45	42 – 48	6,667	100
2	36,5 – 41,5	1	39	36 – 40	6,667	93,334
3	30,5 – 35,5	4	33	30 – 35	26,667	86,667
4	24,5 – 29,5	5	27	24 – 29	33,333	60
5	17,5 – 23,5	4	20,5	17 – 23	26,667	26,667
		$\sum F = 15$			100	

The distribution of students' score in post-test of control group can be seen in following figure.

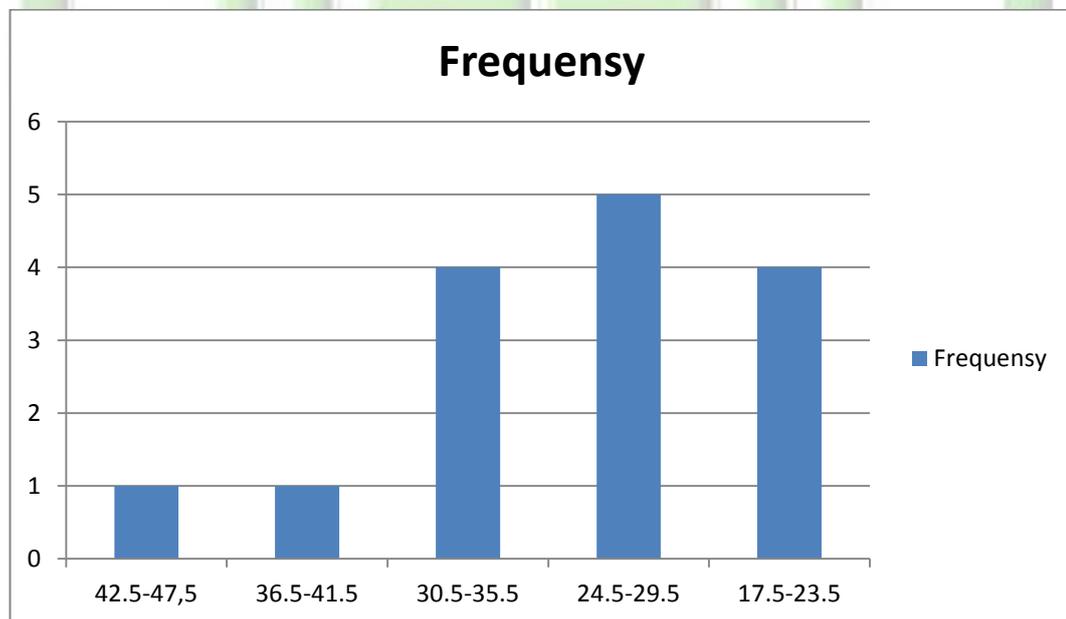


Figure 4.2 the Frequency Distribution of Post-test of the Control Group

2. The Result of Pre-test and Post-test Score of the Experiment Group

The pre-test was conducted to the Experimental group in class C on Monday, October 3rd 2017 at 07.00-08.40 am. Meanwhile, post-test was done on

Monday October 30th 2017 at 07.00-08.40 am. The result of post-test are presented in the following table.

Table 4.4 the Comparison of Pre-test and Post-test score of Experimental group

No	Initial	Score		
		Pre-test	Post-test	Improvement
1	RA	25	22,5	-2,5
2	MA	12,5	12,5	0
3	SNA	20	20	0
4	SMN	17,5	25	7,5
5	RRPL	30	15	-15
6	DM	20	22,5	2,5
7	RK	25	27,5	2,5
8	OD	32,5	30	-2,5
9	IS	21,5	15	-6,6
10	RHA	27,5	22,5	-5
11	SH	12,5	27,7	15
12	NH	35	17,5	-17,5
13	WS	22,5	20	-2,5
SUM		301,5	277,5	
Highest Score		35	30	
Lowest Score		12,5	12,5	
Mean		23,19	21,35	
Standard Deviation		30,51	22,81	
Standard Error		8,82	6,59	

The table above described the comparison of critical reading comprehension score between pre-test and post-test achieved by experimental group. First, in pre-

test, there were 2 students get score 12,5. There was 1 get score 17,5. There were 2 students get score 20. There was 1 student get score 21,5. There was 1 student get score 22,5. There were 2 students get score 25. There was 1 student get score 27,5. There was 1 student get score 30. There was 1 student get score 32,5. There was 1 student get score 35.

Second, in post-test, there was 1 student gets score 12,5. There were 2 students get score 15. There was 1 student get 17,5. There were 2 students get score 20. There were 3 students get score 22,5. There was 1 student get score 25. There were 2 students get 27,5. There was 1 student get score 30. The highest score from pre-test was 35 and the lowest score was 12,5. Meanwhile, the post-test had the highest score was 30 and the lowest score was 12,5. If it is seen from the total score, the pre-test and the post-test have decrease in score before and after getting the treatment.

For the table of pre-test above, it can be seen that students' score (100%) were under score 50. The process to find mean, standard deviation, and standard error is in appendix.

a. The Result of Pre-test Score of Experimental Group (Class C)

To determine range of score (R), class of interval (K), interval of temporary were calculated the pre-test scores of the experiment group using following formula:

$$\begin{aligned} \text{The highest score (H)} &= 35 \\ \text{The lowest score (L)} &= 12,5 \\ \text{The range f score (R)} &= H - L + 1 \\ &= 35 - 12,5 + 1 \end{aligned}$$

$$= 22,5 + 1$$

$$= 23,5$$

$$\text{The class interval (K)} = 1 + 3,3 \log n$$

$$= 1 + 3,3 \log (13)$$

$$= 1 + 3,67$$

$$= 4,67$$

$$= 5$$

$$\text{Interval of Temporary (I)} = \frac{R}{K} = \frac{23,5}{5} = 4,7 = 5$$

Based on the calculation, the range of score was 23,5, the class interval was 5, and interval of temporary was 5. Beneath was the table of frequency distribution:

Table 4.5 Frequency Distribution of the Pre-test Score of Experimental Group

Class (K)	Interval (I)	Frequency (F)	Mid Point (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	31 – 35	2	33	30,5 – 35,5	15,384	100
2	26 – 30	2	28	25,5 – 30,5	15,384	84,613
3	21 – 25	4	23	20,5 – 25,5	30,769	69,229
4	16 – 20	3	18	15,5 – 20,5	23,076	38,46
5	12,5 – 15	2	13,75	12 – 15,5	15,384	15,384
		$\Sigma F = 13$			100	

The distribution of students' score in pre-test of experimental group can be seen in following figure.

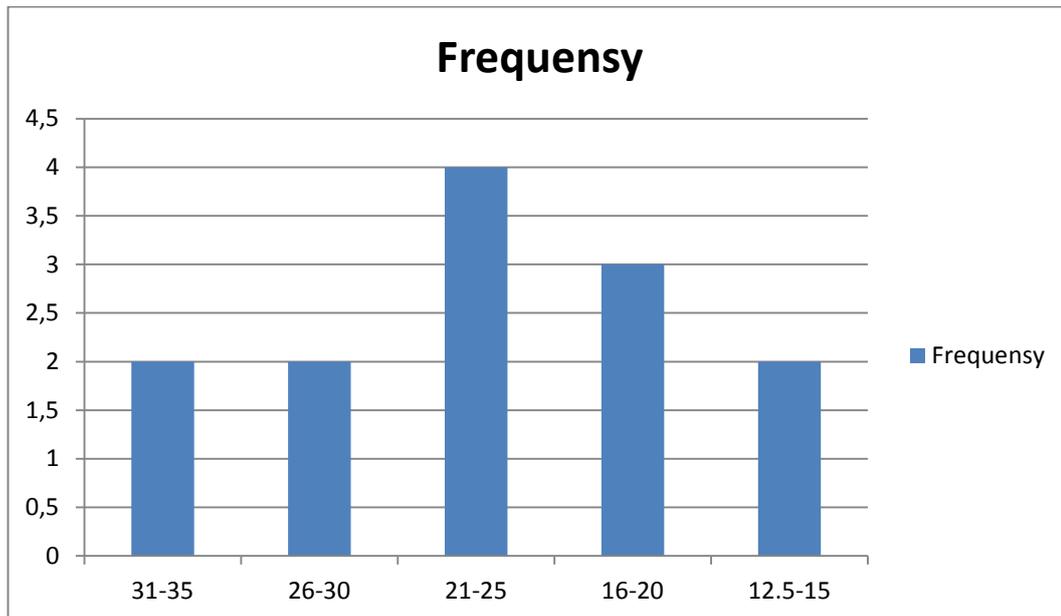


Figure 4.3 the Frequency Distribution of Pre-test of the Experimental Group

b. The Result of Post-test Score of Experimental Group (Class C)

The highest score (H) = 30

The lowest score (L) = 12,5

The range f score (R) = $H - L + 1$

$$= 30 - 12,5 + 1$$

$$= 17,5 + 1$$

$$= 18,5$$

The class interval (K) = $1 + 3,3 \log n$

$$= 1 + 3,3 \log (13)$$

$$= 1 + 3,67$$

$$= 4,67$$

$$= 5$$

$$\text{Interval of Temporary (I)} = \frac{R}{K} = \frac{18,5}{5} = 3,7 = 4$$

Based on the calculation, the range of score was 18,5, the class interval was 5, and interval of temporary was 4. Beneath was the table of frequency distribution:

Table 4.6 Frequency Distribution of the Pre-test Score Experimental Group

Class (K)	Interval (I)	Frequency (F)	Mid Point (X)	The Limitation of Each Group	Frequency Relative (%)	Frequency Cumulative (%)
1	27 – 30	3	28,5	26,5 – 31,5	23,076	100
2	23 – 26	4	24,5	22,5 – 26,5	30,769	76,921
3	19 – 22	2	20,5	18,5 – 22,5	15,384	46,152
4	15 – 18	3	16,5	14,5 – 18,5	23,076	30,768
5	12,5 – 14	1	13,25	12 – 14,5	7,692	7.692
		$\Sigma F = 13$			100	

The distribution of students' score in post-test of experimental group can be seen in following figure

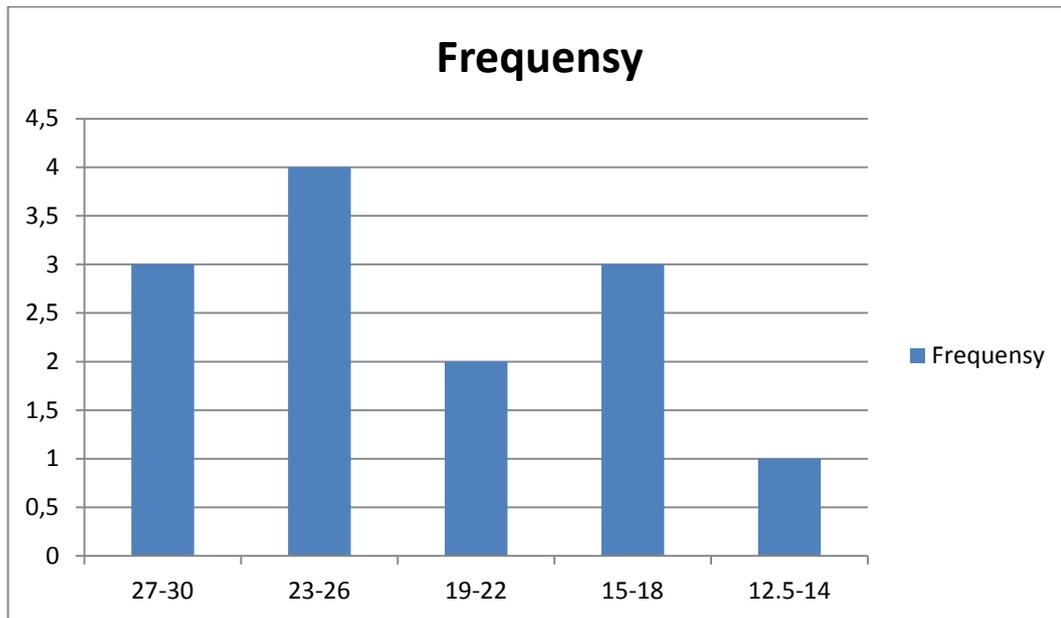


Figure 4.4 the Frequency Distribution of Post-test of the Experimental Group

3. Comparison Between Control Group and Experiment Group at Post-Test and Improvement

The scores are tabulated in comparison both of the group at post-test into the table for calculating the improvement bellow:

Table 4.7 the Comparison Score of Pre-test and Post-test

No.	Control Group				Experiment Group			
	Initial	Score			Initial	Score		
		Pre-test	Post-test	Imp		Pre-test	Post-test	Imp
1	ENA	25	40	15	RA	25	22,5	-2,5
2	AR	37,5	25	-12,5	MA	12,5	12,5	0
3	RDM.	22,5	22,5	0	SNA	20	20	0
4	YQ	45	25	-20	SMN	17,5	25	7,5

5	MI	35	30	-5	RRPL	30	15	-15
6	NH	25	32,5	7,5	DM	20	22,5	2,5
7	ZSN	42,5	47,5	5	RK	25	27,5	2,5
8	MH	17,5	17,5	0	OD	32,5	30	-2,5
9	AS	25	25	0	IS	21,5	15	-6,6
10	NF	22,5	27,5	5	RHA	27,5	22,5	-5
11	ARS	20	30	10	SH	12,5	27,7	15
12	ME	20	32,5	12,5	NH	35	17,5	-17,5
13	AW	25	25	0	WS	22,5	20	-2,5
14	IRB	15	22,5	7,5				
15	YSPSP	22,5	17,5	-5				
SUM		400	420			301,5	277,5	
Highest Score		45	47,5			35	30	
Lowest Score		15	17,5			12,5	12,5	
Mean		26,67	28			23,19	21,35	
SD		47,9	40,15			30,51	22,81	
SE		12,81	10,74			8,82	6,59	

Note:

Imp : Improvement

SD : Standard Deviation

SE : Standard Error

The comparison of students' score in post-test both of the groups can be seen in following figure.

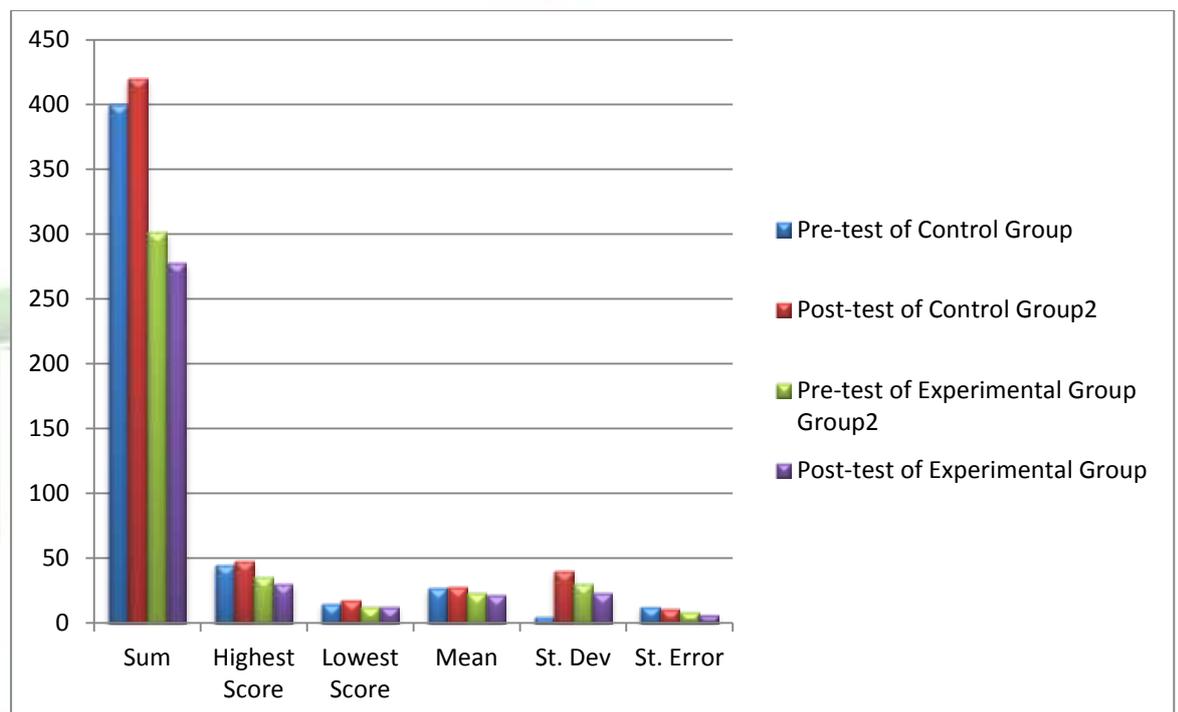


Figure 4.5 the Comparison both of groups' post-test scores

B. Research findings

1. Testing Normality and Homogeneity (Linearity)

a. Testing Normality and Homogeneity of Pre-test

This study, the result of pre-test and post-test scores of experimental and control group calculated by using SPSS17.0. The homogeneity was measured to know the normality of the data that is going to be analyzed having normal distribution or not. The result of the test can be seen in the following table.

Table 4.8 Test of Normality (Shapiro-Wilk Test) of Pre-test

Kelas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Nilai Eks	.093	13	.200*	.968	13	.869
kontrol	.306	15	.001	.870	15	.033

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Based on the result test of normality, can be known that the significance value of the experimental group was $0,869 > 0,05$ and the significance value of the control group was $0,033 < 0,05$. In this case, the normality of both can be concluded: experimental group was normal distribution because value of significance was higher than $0,05$, and control group was not normal distribution because value of significance was lower than $0,05$.

Table 4.9 Test of Homogeneity of Variance of Pre-test

	Levene Statistic	df1	df2	Sig.
Nilai Based on Mean	.804	1	26	.378
Based on Median	.175	1	26	.679
Based on Median and with adjusted df	.175	1	22.197	.680
Based on trimmed mean	.602	1	26	.445

Based on the result above about test of homogeneity of variance on result of pre-test can be known the significance values were higher than $0,05$, it can be concluded that both of the data were homogeneous.

b. Testing Normality and Homogeneity of Post-test

Table 4.10 Test of Normality (Shapiro-Wilk Test) of Post-test

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Kelas		Statistic	Df	Sig.	Statistic	df	Sig.
Nilai	Eks	.124	13	.200*	.964	13	.807
	kontrol	.180	15	.200*	.912	15	.145

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Based on the result test of normality, can be known that the significance value of the experimental group was $0,807 > 0,05$ and the significance value of the control group was $0,145 < 0,05$. In this case, the normality of both can be concluded experimental and control group were normal distribution because values of significance was higher than 0,05.

Table 4.11 Test of Homogeneity of Variance of Post-test

		Levene Statistic	df1	df2	Sig.
Nilai	Based on Mean	1.015	1	26	.323
	Based on Median	.555	1	26	.463
	Based on Median and with adjusted df	.555	1	20.147	.465
	Based on trimmed mean	.855	1	26	.364

Based on the result above about test of homogeneity of variance on result of pre-test can be known the significance values were higher than 0,05, it can be concluded that both of the data were homogeneous.

2. Testing Hypothesis

a. Testing Hypothesis Using Manual Calculation

Table 4.12 Standard Deviation and Mean of X₁ and X₂ of Critical Reading Comprehension Score

Variable	The Standard Deviation	Mean (<i>M_x</i>)
X ₁	22,81	22,1
X ₂	40,15	28,87

Where:

X₁ = Critical Reading Comprehension of Control Group

X₂ = Critical Reading Comprehension of Experimental Group

Before finding value of t_{observ} the formula that used must be determined by using following steps:

$$\begin{aligned} F &= \frac{S_1^2}{S_2^2} \\ &= \frac{22,81}{40,15} \\ &= 0,57 \end{aligned}$$

Where:

F : Homogeneity

S² : Variance

If $F_{\text{value}} < F_{\text{table}}$ = equal variance

If $F_{\text{value}} > F_{\text{table}}$ = unequal variance

$$df1 = k - 1$$

$$= 2 - 1$$

$$= 1$$

$$df2 = n - k$$

$$= 28 - 2$$

$$= 26$$

Based on the calculating above known that $F_{\text{value}} = 0,57$ $df1$ and $df2$ in F_{table} is 4,23 (look at F table). So, $F_{\text{value}} < F_{\text{table}}$ ($0,57 < 4,23$) means variance was equal or homogeneous.. Then, to get the value of t_o , it was inserted to following formula:

Calculating t_o using comparison the number of sample and homogeneity of variances ($n_1 = n_2$) or not and ($\sigma_1^2 = \sigma_2^2$) or not. Based on the data, this study used ($n_1 \neq n_2$) and $\sigma_1^2 = \sigma_2^2$ (Purwanto, 2010:199)

$$\begin{aligned}
 t_o &= \frac{Mx_1 - Mx_2}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 2)s_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} \\
 &= \frac{22,1 - 28,87}{\sqrt{\frac{(13 - 1)22,81^2 + (15 - 2)40,15^2}{13 + 15 - 2} \left(\frac{1}{13} + \frac{1}{15}\right)}} \\
 &= \frac{-6,77}{\sqrt{\frac{(12)520,3 + (13)612,02}{26}}} (0,14) \\
 &= \frac{-6,77}{\sqrt{\frac{6.243,6 + 8.956,26}{26}}} (0,14)
 \end{aligned}$$

$$= \frac{-6,77}{\sqrt{\frac{14.199,86}{26}}} (0,14)$$

$$= \frac{-6,77}{46,15} (0,14)$$

$$= \frac{-0,9478}{46,15}$$

$$= -2,706$$

If $t_o \geq t_{table}$, H_a is accepted and H_o is rejected.

If $t_o \leq t_{table}$, H_a is rejected and H_o is accepted.

Then, interpreting the result of t-test is to account the degree of freedom (df) this study used following formula:

$$df = (N_1 + N_2)$$

$$= (13 + 15 - 2)$$

$$= 26$$

Table 4.13 the Result of T-test

$t_{observed}$	$T_{table} (5\%)$	$T_{table} (1\%)$	df/db
-2,706	2.056	2,779	26

Where:

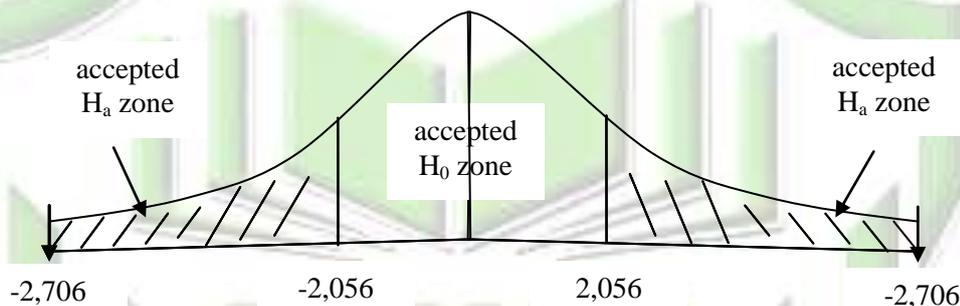
t_{observed} : The Calculated Value

T_{table} : The Distribution of t_{value}

df/db : Degree of Freedom

Based on the manual calculating, can be known that t_{observe} is greater than t_{table} .

$$2,056 < -2,706 < 2,779$$



Picture 4.1 Applying two tails test

Based on the calculation of hypothesis test, can be known that the value of t_{observe} was higher than the value of t_{table} at significance level or $2,056 < -2,706 < 2,779$ It can be concluded that H_a was accepted and H_0 was rejected.

b. Testing Hypothesis Using SPSS 17.0

To support the manual calculating the t_{test} , the study used SPSS 17.0 program.

Table 4.14 Standard Deviation and Standard Error of X_{1R} and X_{2R} Group Statistic

Group Statistics					
Class		N	Mean	Std. Deviation	Std. Error Mean
Value	Exp Class	13	21.3462	5.36340	1.48754
	Control Class	15	28.0000	7.97317	2.05866

Table 4.15 the Calculation T-test Using SPSS 17.0 Independent Sample Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Value	Equal variances assumed	1.015	.323	-2.548	26	.017	-6.65385	2.61181	-12.02251	-1.28518
	Equal variances not assumed			-2.620	24.609	.015	-6.65385	2.53986	-11.88899	-1.41870

The table above showed the calculation using SPSS 17.00 program.

If $\alpha = 0,05 < sig$, H_0 accepted and H_a rejected

If $\alpha = 0,05 > sig$, H_a accepted and H_0 rejected

Based on the result of hypothesis test calculation table above, it was found that the result of post-test between experimental and control group had difference score of variance that $\alpha = 0,05$ was lower than sig (0,17), so H_0 was accepted and H_a was rejected. The result of t_{test} was -2,548, mean difference between experimental and control group was -6,65385, and standard error difference between experimental and control group was 2,61181.

3. Interpretation

Based on manual calculating, the tables SPSS 17.0 program calculating and picture showed that H_a was accepted and H_0 was rejected. It could be interpreted that SQ4R reading strategy has positive effect toward undergraduate critical reading comprehension at fifth semester, IAIN Palangka Raya.

C. Discussion

It is seen that pre-test scores of students from the experimental and the control groups do not have significant difference. Pre-test score average of students from the experimental group was found to be 23,19 and that of the students from control group was found to be 26,67. It shows that available knowledge and critical reading of students from both groups are enough different to each other. Then, post-test scores of students from the experimental and the control groups have different significant different. Post-test score average of students from the experimental group was found to be 21,35 and that of the students from control group was found to be 28. It shows that knowledge and critical reading of students from control is higher than experimental groups after the treating. Based on the testing hypothesis, T count was bigger than t-table with

5% ($-2,706 > 2,056$) at degrees of freedom 26. T count was negative that means control group' scores were higher than experimental group. Ho was rejected since $P_{\text{value}} < 0,05$ ($0,017 < 0,05$). It meant there was difference between average score of experimental group and control group. Value of t_{observ} was negative that means experimental group's score was lower than control group. The difference of average (mean difference were $-6,65$ (21,35-28), and the difference was $-12,02$ until $-1,29$. The fact really proved that SQ4R increased students' critical reading comprehension since it gave positive effect toward the students' achievement in reading lesson, even the score as the experimental group was lower than control group. The previous studies are tabulated in comparison the result of this thesis into the table of significant bellow:

Table 4.16 Comparison between the Previous of Study and the Result of the Study

No	Previous Study	Result	Result of This Thesis	Conclusion
1	Ferez (2010)	Significant	Significant	SQ4R technique is recommended to be applied to increase undergraduate students' critical reading.
2	Putra (2013)	Significant		
3	Kinanthi (2013)	Significant		
4	Pardede (2013)	Significant		
5	Negara (2014)	Significant		
6	Rustiana (2014)	Significant		
7	Novita (2015)	Significant		
8	Runiatun at al. (2016)	Significant		
9	Gurbusz (2017)	Significant		

According to the studies, a conclusion was made that this reading strategy provides positive contributions to the reading process. A study by Runiatun et al. (2016) determined that the strategy during reading contributes to the comprehension. Gurbusz (2017) concluded in his study the SQ4R strategy contributes to the upper cognitive development in his country students, Turkey. All these results show that reading comprehension strategy has a positive and significant impact on critical reading comprehension skill.



CHAPTER V

CONCLUSION AND SUGGESTION

In this chapter, will be presented conclusion and suggestion for students, teachers or lecturers, and future researchers.

A. Conclusion

Based on the study was presented and calculated using T-test, the result can be showed as following points:

1. There was significant effect of SQ4R toward students' critical reading comprehension that applied on fifth semester students of English department at IAIN Palangka Raya. H_a was accepted and H_o was rejected. This study must be admitted that the result was not optimal, because some cause from the students themselves. During the treatment there some different reaction from the student. And also when the students did the post test. A half of them did it less than an hour and without spirit.

B. Suggestion

This study is hope can be studied by students to better research. According to the findings of the study the writer have suggest for the students, lecturers, and next researchers.

1. For the students

The students still have some task to train their ability in critical reading comprehend. To be a critical reader is not easy, but there is nothing

something impossible. Reading fluency is needed during the test. Many factors can be the cause of the result. So, students need to practice more.

2. For Lectures

This study is hoped give contribution to lecturer in teaching reading class. Reading strategy that used here can be used by lecturers to help students to be better critical readers. Lecturers are hoped to find others appropriate strategy to teach students.

3. For the next researchers

Based on the scope and limitation of the study, so the finding of this study was limited only to measure the effect of SQ4R toward undergraduate students' critical reading comprehension. This study did not elaborate students's attitude and psychology on the treatment process. Then, the study used quasi experimental and the sample are fifth students, so the next researchers are hoped to continue deep research on aspects that have not observed by writer of this thesis.

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APPENDIX

