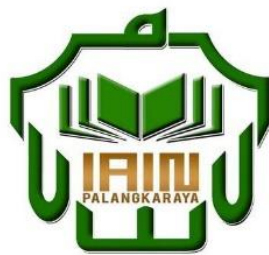# A COMPARATIVE STUDY OF SCIENCE EDUCATION STUDENTS ON ENGLISH VOCABULARY SIZE AT IAIN PALANGKA RAYA

BY:

DEBIE TRI HERIYANTI

STATE ISLAMIC INSTITUTE OF PALANGKARAYA

2020 M / 1441 H

A COMPARATIVE STUDY OF SCIENCE EDUCATION STUDENTS ON ENGLISH VOCABULARY SIZE AT IAIN PALANGKA RAYA

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
DEBIE TRI HERIYANTI
NIM 1301120857

STATE ISLAMIC INSTITUTE OF PALANGKARAYA
FACULTY OF TEACHER TRAINING AND EDUCATION
DEPARTMENT OF LANGUAGE EDUCATION
STUDY PROGRAM OF ENGLISH EDUCATION
2020 M / 1441 H

ADVISOR APPROVAL

Thesis Title	: **A Comparative Study of Science Education Students on English Vocabulary Size at Palangka Raya.**
Name	: Debie Tri Heriyanti
SRN	: 1301120857
Faculty	: Teacher Training and Education
Department	: Language Department
Study Program	: English Education Study Program

This is to certify that the thesis has been approved by the thesis advisors for Thesis Examination/*Munaqasyah* by the Board of Examiners of the Faculty of Teacher Training and Education of the State Islamic Institute of Palangka Raya.
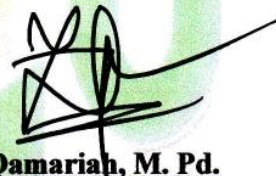
Palangka Raya, 18th June 2020

Approved by:

Advisor I,

Hj. Apni Ranti, M. Hum
ORN. 198101182008012013

Advisor II,
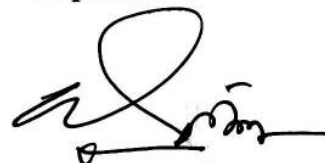
Zaitun Qamariah, M. Pd.
ORN. 198405192015032003

The Vice Dean of Academic,

Dr. Nurul Wahdah, M.Pd.
ORN. 198003072006042004

Secretary of Language Education Department

Akhmad Ali Mirza, M.Pd.
ORN. 198406222015031003

OFFICIAL NOTE

Palangka Raya, June, 15th 2020

Case :   **Examination of**
             Debie Tri Heriyanti Thesis

To The Dean of Faculty of Education and
Teacher Training of State Islamic Institute
of Palangka Raya
In Palangka Raya

Assalammu'alaikumWr. Wb

By reading and analyzing of this thesis, we think the thesis in the name of:

Name   :   Debie Tri Heriyanti
SRN   :   1301120857
Thesis Title   :   A Comparative Study of Science Education Students on
                  English Vocabulary size at IAIN Palangka Raya.

Can be examined in partial fulfillment of the requirements of the Degree of *Sarjana Pendidikan* in the Study Program of English Education of the Language Education of the Faculty of Education and Teacher Training of the State Islamic Institute of Palangka Raya.

Thank you for the attention.

Wassalammu'alaikumWr. Wb

Advisor I

Hj. Apni Ranti, M.Hum.
ORN. 198101182008012013

Advisor II

Zaitun Qamariah, M.Pd.
ORN. 198405192015032003

iv

THESIS APPROVAL

Thesis Title	: A Comparative Study of Science Education Students on English Vocabulary Size at IAIN Palangka Raya
Name	: Debie Tri Heriyanti
SRN	: 1301120857
Faculty	: Teacher Training and Education
Department	: Language Department
Study Program	: English Study Program

Has been examined by the Board of Examiners of the Faculty of Teacher Training and Education of the State Islamic Institute of Palangka Raya in the Thesis Examination/*Munaqasyah* on:

Day	: Tuesday
Date	: June 30th, 2020 M / 9 Dzulkaidah 1441 H

BOARD OF EXAMINERS

Akhmad Ali Mirza, M.Pd   (...)

(Chair / Examiner)

Dr. Imam Qalyubi, S.S,M.Hum   (...)

(Main Examiner)

Hj. Apni Ranti, M.Hum   (...)

(Examiner)

Zaitun Qamariah, M.Pd   (...)

(Secretary / Examiner)

Approved by:

Dean Faculty of Teacher Training and Education

Dr. Hj. Rodhatul Jennah, M.Pd.
NIP.196710031993032001

v

MOTTO AND DEDICATION

''Indeed, with hardship will be ease. So, when you have finished your duties

then stand up for worship.

And to your lord direct your longing''

(Q.S. Al- Insyirah : 6-8)

This Thesis is dedicated to:

My beloved Father Mr. Herry Noerwandono and MotherMrs. Rusmiyati for their eternal love, valuable endless prayer, sacrifice, and support me all the time. To my beloved Sisters Kiki Destiyanti and Wiwiek Dwi Juanitha for being such a good and supportive sisters. Also thanks to the only one son in our family M. Jonny Hernando for being such a funny brother who always brings a laugh in our home.

DECLARATION OF AUTHORSHIP

<div dir="rtl">بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيمِ</div>

Herewith, I:

Name   : Debie Tri Heriyanti

SRN   : 1301120857

Faculty   : Teacher Training and Education

Department   : Language Education

Study Program   : English Education

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 a later time it 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, June 15th 2020
Yours Faith Fully

Debie Tri Heriyanti
SRN. 1301120857

ABSTRACT

Debie Tri Heriyanti. 2020. *A Comparative Study Of Science Education Students On English Vocabulary Size At Iain Palangka Raya. Thesis.* Department of Language Education, Faculty of Teacher Training and Education, State Islamic Institute of Palangka Raya. Advisor (I) Hj. Apni Ranti, M.Hum., (II) Zaitun Qamariah, M.Pd.

Keywords: Comparative Study, Vocabulary, Vocabulary Size.

IAIN Palangka Raya as one of state universities in Kalimantan Tengah which obliges all of the students in every study program of faculties to take and pass exam of TOEFL as one of requirements to propose the thesis. So that, the introduction of learning English has been done since the beginning, not only English education but also other majors also accept it. the researcher interested in doing research on this issue because my curiosity about the vocabulary size of first year science students is based on what they have achieved in learning English from UPTIB and also the knowledge they received during Mahad's life. Based on that background, the writer will focus on the Vocabulary size of Science students. The researcher also will make a comparative study between Tadris Fisika and Tadris Biologi students, by doing a Vocabulary size test and also use their score of vocabulary size test to analyze it and identify the students ability of English Vocabulary.

The aim of this study is o find out the significant difference between Tadris Fisika Students and Tadris Biologi students at IAIN Palangka Raya academic year 2019 in Vocabulary size.

This study classified into quantitative research. The researcher use the ex post facto method to do this research because this study compare Vocabulary size between Tadris Fisika and Tadris Biologi students the first semester of IAIN Palangka Raya in the academic year of 2019/2020. Test and questionnaire were used as the instrument in this study. The sample of the research consists of two classes they are the students of Tadris Fisika class A, and Tadris Biologi class A and B. The researcher took 26 Tadris Fisika students and 39 Tadris Biologi students from those classes by purposive sampling using microsoft excel.

The data analysis has shown that magnitude of tcount = -1.666 while ttable = 2.02439, this means tcount<ttable then H0 is accepted. Based on the data analysis, it can be concluded that there is no significant difference between the results of the Vocabulary Size Test of Tadris Biologi study program students and Tadris Fisika study program students at IAIN Palangka Raya.

ABSTRAK

Debie Tri Heriyanti. 2020. *A Comparative Study Of Science Education Students On English Vocabulary Size At Iain Palangka Raya. Skripsi.* Jurusan Pendidikan Bahasa, Fakultas Tarbiyah dan Ilmu Keguruan, Institut Agama Islam Negeri Palangka Raya. Pembimbing: (I) Hj. Apni Ranti, M. Hum., (II) Zaitun Qamariah, M.Pd.

Kata kunci: Studi Banding, kosakata Bahasa Inggris, Tes ukuran kosa kata.

IAIN Palangka Raya sebagai salah satu universitas negeri di Kalimantan Tengah yang mewajibkan semua mahasiswa di setiap program studi fakultas untuk mengambil dan lulus ujian TOEFL sebagai salah satu syarat untuk mengajukan skripsi. Sehingga, pengenalan pembelajaran bahasa Inggris telah dilakukan sejak awal, tidak hanya pendidikan bahasa Inggris tetapi juga jurusan lain juga menerimanya. Peneliti tertarik untuk melakukan penelitian tentang masalah ini karena keingintahuan peneliti tentang ukuran kosa kata siswa sains tahun pertama didasarkan pada apa yang telah mereka capai dalam belajar bahasa Inggris dari UPTIB dan juga pengetahuan yang mereka terima selama hidup di Mahad. Berdasarkan latar belakang itu, penulis akan fokus pada ukuran kosakata siswa jurusan Sains. Peneliti juga akan membuat studi perbandingan antara siswa Tadris Fisika dan Tadris Biologi, dengan melakukan tes ukuran Kosakata dan juga menggunakan skor tes ukuran kosakata mereka untuk menganalisis dan mengidentifikasi kemampuan siswa Kosakata Bahasa Inggris.

Tujuan dari penelitian ini adalah untuk mengetahui perbedaan yang signifikan antara Mahasiswa Tadris Fisika dan mahasiswa Tadris Biologi di IAIN Palangka Raya tahun akademik 2019 dalam ukuran kosakata.

Penelitian ini termasuk penelitian kuantitatif. Peneliti menggunakan metode ex post facto untuk melakukan penelitian ini karena penelitian ini membandingkan ukuran kosakata antara mahasiswa Tadris Fisika dan Tadris Biologi semester pertama IAIN Palangka Raya pada tahun akademik 2019/2020. Tes dan kuesioner digunakan sebagai instrumen dalam penelitian ini. Sampel penelitian terdiri dari dua kelas yaitu siswa Tadris Fisika kelas A, dan Tadris Biologi kelas A dan B. Peneliti mengambil 26 siswa Tadris Fisika dan 39 siswa Tadris Biologi dari kelas-kelas tersebut dengan purposive sampling menggunakan microsoft excel.

Analisis data menunjukkan bahwa besarnya tcount = -1.666 sedangkan ttable = 2.02439, ini berarti tcount<ttable maka H0 diterima. Berdasarkan analisis data tersebut, dapat disimpulkan bahwa tidak ada perbedaan yang signifikan antara hasil tes ukuran kosakata mahasiswa program studi Tadris Biologi dan mahasiswa program studi Fisika Tadris di IAIN Palangka Raya.

ACKNOWLEDGEMENTS

The researcher would like to express her sincere gratitude to Allah SWT., for the blessing bestowed in her whole life particularly during the thesis writing without which this thesis would not have come to its final form. Sholawat and salam always be bestowed to the last prophet Muhammad SAW., having shown us the role of life to make our life true.
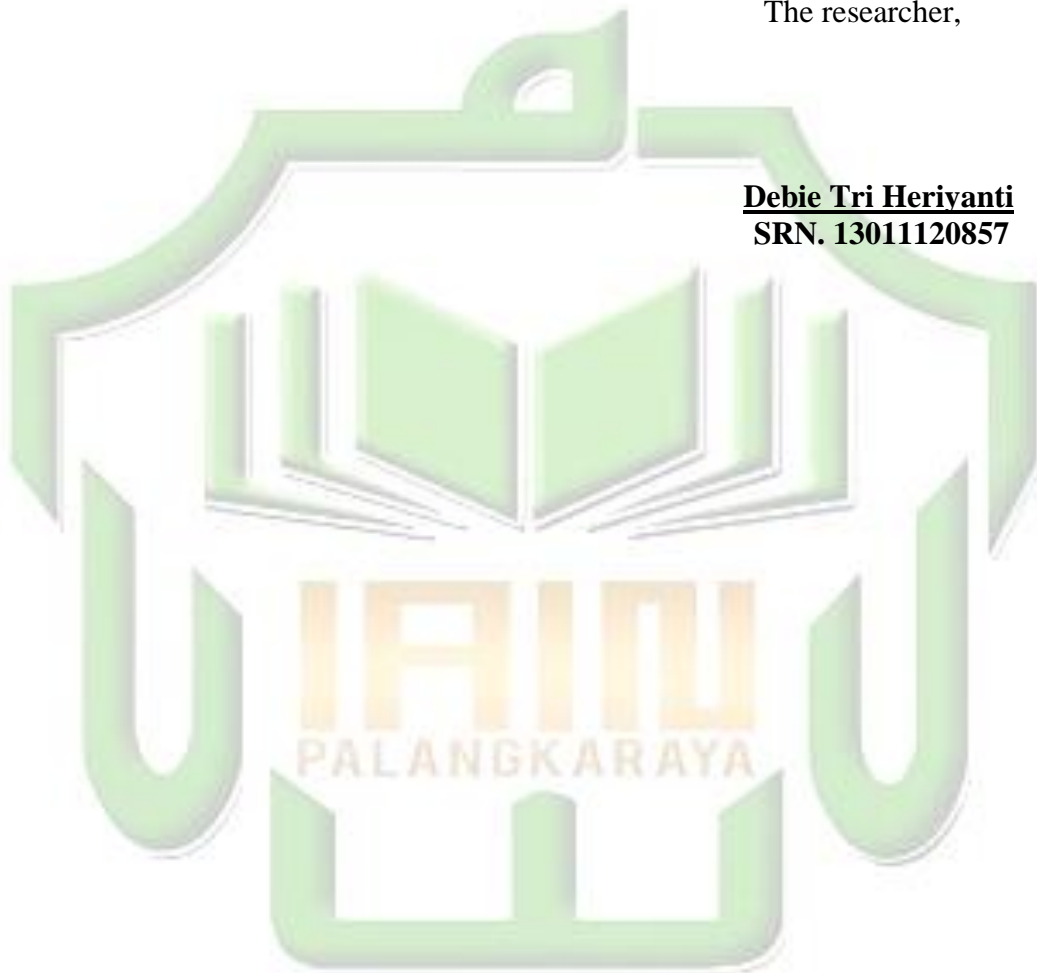
Her appreciation is addressed to:

1. Dean of Faculty of Teacher Training and Education of the State Islamic Institute of Palangka Raya, **Dr. Hj. Rodhatul Jennah, M.Pd.,** for her invaluable assistance both in academic and administrative matters.

2. Vice Dean in Academic Affairs **Dr. Nurul Wahdah, M.Pd.,** for her invaluable assistance both in academic and administrative matters.

3. Chair of Language Department **Akhmad Ali Mirza, M.Pd.,** for his invaluable assistance both in academic and administrative matters.

4. Chair of Study Program of English Education **Zaitun Qamariah M.Pd.,** for her invaluable assistance both in academic and administrative matters.

5. **Hj. Apni Ranti, M. Hum.,** as the first advisor and **Zaitun Qamariah, M.Pd,.** as the second advisor for their generous advice, valuable guidance and elaborated correction during their busy time to the completion of this thesis.

6. All lecturers of Study Program of English Education from whom writer got in-depth knowledge of English and English teaching.

7. Her beloved parents for their sacrifices, eternal love, moral support and endless prayer for all the times.

8. Her beloved sister and brother for their support and endless prayer.

9. All of her friends in PBI 2013 for their support in sadness and happiness during the study in undergraduate program and for their spirits to accomplish her study.

Palangka Raya, 15th June 2020
The researcher,

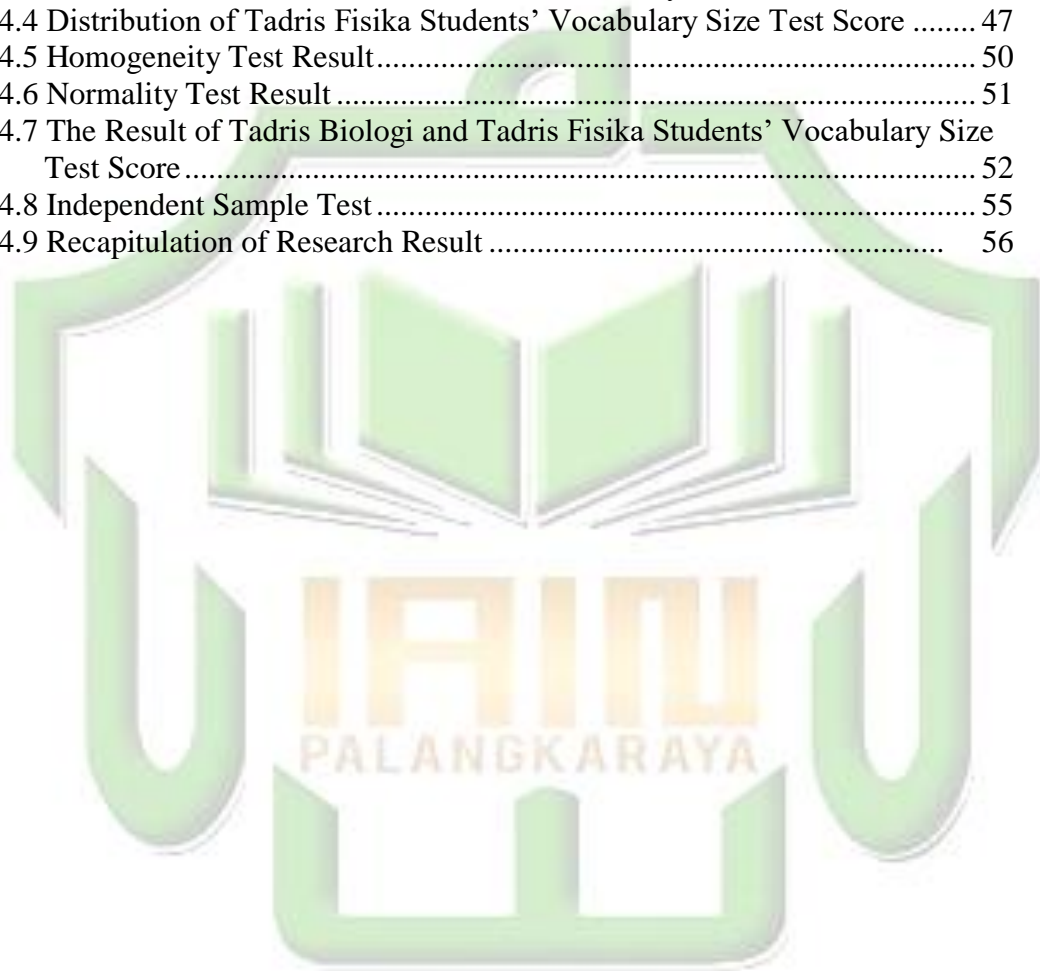**Debie Tri Heriyanti**
SRN. 13011120857

TABLE OF CONTENT

LIST OF TABLES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

This chapter present the background of the study, research problems, objective of the research, hypothesis of the study, significance of the research and definition of key terms.

A. Background of the Study

English is one of the most important languages of the world. Spoken by more than 380 million people in the United Kingdom, the United States, and the former British Empire, it is the largest of the Western languages. (Bough & Cable, 2002: 3). Nowadays, English is as one of languages that taught and learn by many people around the world. The one who learns language has to master four basic language skills. They are listening, reading, speaking and writing. Beside those skills, he also should master language components especially vocabulary. Theoritically, vocabulary is one of language components that is very important to help us learn English language. Rivers (1970:462) states that it would be impossible to learn a language without vocabulary. When we start to study and also before we learn further about the four skills i.e listening, speaking, reading, and writing. The first aspect that we have learn is vocabulary. It is also important to understand for us when we learn those skills. Vocabulary is important because it allows us to communicate. Mastering vocabulary determines the success in learning English. When we have a lot of vocabularies, we will be easy to learn

1

English. Wilkins in Thornbury (2002:13) states that someone can be conveyed very little ideas without grammar, but nothing can be conveyed without vocabulary. When we comprehend about grammar and having good mastery on it, what will we do when we do not comprehend the vocabulary which we will use to communicate? So that although mastering grammar, without mastering vocabulary, it means that we cannot do four skills above. IAIN Palangka Raya as one of state universities in Kalimantan Tengah which obliges all of the students in every study program of faculties to take and pass exam of TOEFL as one of requirements to propose the thesis. So that, the introduction of learning English has been done since the beginning, not only English education but also other majors also accept it. Teaching English vocabulary is so different from teaching Indonesian language, not only in the meaning but also in pronouncing the words. Teachers should be patient and give more attention for the students because the students need the teachers' attention in the teaching and learning process. In teaching vocabulary for young learners, the teachers should facilitate the students to master vocabulary. Teaching English vocabulary is very different from teaching Indonesian, not only in meaning but also in supporting words and also teaching English to students of English Education, the researcher think is different from teaching students of Sciences. Based on these observations, the researcher interested in doing research on this issue because my curiosity about the vocabulary size of first year science students is based on what they have achieved in learning English from UPTIB and also the knowledge they received during Mahad's life. Based on that background, the writer will focus on the Vocabulary

size of Science students. The researcher also will make a comparative study between Tadris Fisika and Tadris Biologi students, by doing a Vocabulary size test and also use their score of vocabulary size test to analyze it and identify the students ability of English Vocabulary. So, the researcher decided to write a thesis entitled: *" A Comparative study of Science Education Students on English Vocabulary size at IAIN Palangkaraya."*

B. Research Problems

Based on the background of the research above, the problem of this research were formulated as in below.

1. Is there any significant difference between Tadris Fisika students and Tadris Biologi students in vocabulary size?

C. Objectives of the Study

The objectives of this research were formulated as a response of the problem of the research as in below.

1. To find out the significant difference between Tadris Fisika Students and Tadris Biologi students at IAIN Palangka Raya academic year 2019 in Vocabulary size

D. Hypotesis of the Study

This study has two hypotheses, they are :

1. Ha : There is a significant difference between the results of the Vocabulary Size Test of Tadris Fisika study program students and

Tadris Biologi study program students at IAIN Palangka Raya academic year 2019.

2. H0 : There is no significant difference between the results of the Vocabulary Size Test of Tadris Fisika study program students and Tadris Biologi study program students at IAIN Palangka Raya academic year 2019.

E. Significances of the Study

The study had two significances, the first was theoretical significances and the second was practical significances.

1. Theoretically, this study is intended to find out the differences in students vocabulary size between Tadris fisika and Tadris Biologi students. So this way, the teacher can create the teaching strategies that emphasize vocabulary size between Tadris Fisika and Tadris Biologi students and method to certain categories of students in teaching English as a foreign language

2. The practically significance of the study, the result can give a contribution to the teacher about students Vocabulary size between Tadris Fisika and Tadris Biologi students.

3. The pedagogical significance of the study, this study will give a reference for the teacher that deals with students' ability toward the subject and their psychological condition in. It will be useful as reference, self-reflection, and evaluation to improve their teaching after knowing the problem faced by the students

F. Definition of Key Terms

By knowing the key terms, it made this research is easier to be understood by other researcher and readers. There were many key terms that are related to this research as follows:

1. Comparative Study

Comparative study or commonly called Ex Post Facto research is a type of research that attempts to determine the causes for, or consequence of, differences that already exist in groups of individuals (Ary, Jacobs, Razavieh & Sorenson, 2010, p. 331). Comparative means compare two different things or more. In this research, two things that will compare Vocabulary size between Tadris Fisika and Tadris Biologi students in the first semester at IAIN Palangka Raya in the academic year of 2019/2020.

2. Vocabulary

Vocabulary is a total number of words completing with rules for combining which make up language. (Hornby, 1999, p. 45)

Vocabulary is a set of lexeme (the smallest unit in the meaning system of a language that can be distinguished from other similar units) including single words, compound words and idioms. In other word, vocabulary is words within a language that are familiar to that person or the use of a language.

3. Vocabulary Size

Vocabulary size is degree of learner's vocabulary which shows a number of words that a person knows.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter provides to review some related studies, the nature comparative study, the nature of vocabulary, types of vocabulary, vocabulary size, vocabulary of foreign language learner, the importance of vocabulary learning, vocabular mastery, kinds of vocabulary, vocabulary size, concept of language learning, and concept of learning strategy.

A. Related Studies

There were some literatures related to the study reviewed as means to clarify the present study.

The first previous research was done by Barry Afriando and the title is "*A Survey of English Vocabulary Size in Senior High School*" From this research discovered that difference between students vocabulary size in public school and private school, there is a difference between students' vocabulary size in science and social science students also. The data shows that the average value of 3250 students majoring in science is greater than the average value of 2794.5 Social Sciences students.

The Second research is done by Aria Nugraha and the title is "*A Comparative Study of Vocabulary Size Among Different Vocabulary Learning Strategy Use*" This current study was aimed to find out the average of learners' vocabulary size, investigate the most frequently used and the most effective strategy, and to find out whether there is significant difference of vocabulary size among different

learning strategy used. The population of this research was one of first year students in SMAN Bandar Lampung. The instruments in collecting the data were questionnaire based on Schmitt's (1997) study and vocabulary size test by Sutarsyah (2006). The result of data analysis shows that the learners' average vocabulary size is 2166 words. The result of Anova calculation showed that social strategy was the most frequently used and the most effective strategy, while, all the Fcount<Ftable, and all of $p > 0.05$. It means H0 was accepted, that there was no significant difference of vocabulary size among different learning strategy used.

Third previous research was conducted by Maryam Hadavi and Zahra Hashemi from Rafsanjan University of Medical Sciences, Iran. This research aims to "*Compare use and preference of Vocabulary Learning Strategies (VLS) among freshmen and senior EFL medical sciences students across different fields of study*", 449 students participated in the study, of which 64.6% were female and 35.4% were male. The instrument utilizedin this research was a questionnaire consisting of 41 items related to the students' approach to vocabulary learning. The items were classified under eight sections as dictionary strategies, guessing strategies, study preferences, memory strategies, autonomy, notetaking strategies, selective attention, and social strategies. The results indicated that freshmen students particularly students majoring in surgical technology used memory sation technique followed by dictionary use and note taking strategies more than the senior students. In particular, male students were more autonomous while female students preferred to use social strategies. Overall, guessing and dictionary

strategies were the most frequently used strategies among all the learners (p=0.000).Based on the results, which indicated more strategy use by the freshmen students, it is recommended that language teachers recognize the different needs of the students at different levels, and adjust teaching and learning procedures accordingly

Last, Waldvogel (2013) in his study "focused on the relationships between vocabulary learning strategies and vocabulary size among adult Spanish foreign language". He conducted the research in 475 college students enrolled in Spanish course whose their first language was English language. He took the learner for his subject of the study at the beginning, intermediate, and advance learner level. The result showed that there was a correlation between vocabulary learning strategy and vocabulary size in advance level while in basic and intermediate level the correlation was not significant. His research found that there were patterns in vocabulary learning strategy used by the learner in every level. Furthermore, the research proved that advance learner who gained the highest vocabulary size used more vocabulary learning strategies in their learning

The difference with the research in this research is the researcher will find out the difference between Tadris Fisika and Tadris Biologi students vocabulary size at IAIN Palangka Raya Especially in the first semester and that way the writer chooses problem about The Comparison between Tadris Fisika and Tadris Biologi students of Science Program at IAIN Palangka Raya.

B. The Nature Comparative Study

1. Definition

Comparative research is a research methodology in the social sciences that aims to make comparisons across different countries or cultures. A major problem in comparative research is that the data sets in different countries may not use the same categories, or define categories differently (for example by using different definitions of poverty). Comparative research or analysis is a broad term that includes both quantitative and qualitative comparison of social entities (Melinda, 2003: 109).

Melinda also stated the underlying goal of comparative analysis is to search for similarity and variance. Those searching for similarity (i.e. the regression equation) often apply a more general theory and search for universals or under lying general processes across different contexts. The ontology of social patterns is often assumed as universal and independent from time and space. However, it remains difficult to determine these universal patterns in social research. For this reason, comparative research is used to separate patterns that are more general and isolate regularities from the context laden environment. Following Weber"s comparative sociology, the search for variance places more emphasis on context and difference in order to understand specificities. Comparisons not only uncover differences between social entities, but reveal unique aspects of a particular entity that would be virtually impossible to detect otherwise.

2. Development of Comparative Study

Karl Deutsch has suggested we have been using this form of investigation for over 2.000 years. Comparing things is essential to basic scientific and philosophic inquiry, which has been done for a long time (Karl, 1987: 75). Most authors are

more conservative in their estimate of how long comparative research has been with us. It is largely an empty debate over the definition of the tradition with those questioning whether comparing things counts as comparative research (Tama, 2014: 29) Textbooks on this form of study were beginning to appear by the 1880s, but its rise to extreme popularity began after World War II (Jochen, 2004: 84). There are numerous reasons that comparative research has come to take a place of honor in the toolbox of the social scientist. Globalization has been a major factor, increasing the desire and possibility for educational exchanges and intellectual curiosity about other cultures. Information technology has enabled greater production of quantitative data for comparison, and international communications technology has facilitated this information to be easily spread (Arnold, 1987: 141).

      3.   The Defined of Comparative Study

Comparative research, simply put, is the act of comparing two or more things with a view to discovering something about one or all of the things being compared. This technique often utilizes multiple disciplines in one study. When it comes to method, the majority agreement is that there is no methodology peculiar to comparative research (Arnold, 1987: 143). The multidisciplinary approach is good for the flexibility it offers, yet comparative programs do have a case to answer against the call that their research lacks a "seamless whole" (Catherine, 1985: 108).The historical comparative research involves comparing different time-frames. The two main choices with in this model are comparing two stages

in time (either snapshots or time-series), or just comparing the same thing over time, to see if a policy's effects differ over a stretch of time (Bob, 1989: 188).

C. The Nature of Vocabulary

1. The Definition of vocabulary

Vocabulary was the words that a person knows or user. Vocabulary consisted of the words that were used in language communication either spoken or written. In addition, in communion, vocabulary was very important element. The meaning of expression mostly in determined by the vocabulary which is used from the vocabulary, the meaning of the expression is gained, besides from other elements such as intonation and stressing.

Vocabulary had important role in learning language. By mastering many kinds' vocabularies it is expected to be able to help the students' achievement in their learning. Vocabulary referred to words we use to communicate in oral and print language (Hanson & Padua, 2011 : 5).

Based on explanation above, the researcher concluded that vocabulary was a word that person know. Vocabulary had complex function in human being's life. Vocabulary is the form all of the words that human being use to communicate each other. Through vocabulary, people convey that they one to say and receive what they want to hear.

Vocabulary items or world choices also become one of important components in speaking because as many as people mastering the vocabulary so

make their communication understandable. Vocabulary items are needed to talk. Vocabulary is normally studied in dialogue or conversation. This way will help the students to be more active in communication. When we want to assessing vocabulary, we can get their 15mark with assess whether their vocabulary is adequate or inadequate. The component scales of vocabulary are:

1) Vocabulary inadequate for even the simplest conversation.

2) Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc).

3) Choices of words sometimes inaccurate, limitation of vocabulary prevent discussion of some common professional and social topic.

4) Professional vocabulary adequate to discuss special interests, general vocabulary permits discussion of non-technical subject with some circumlocutions.

5) Professional vocabulary broad and precise, general vocabulary adequate to cope with complex practical problems and varied social situations.

6) Vocabulary apparently as accurate and extensive as that of an educated native speaker.

2. The Types of Vocabulary

In vocabulary, there were two types of word :

Function words and content words.

a. Function Word

Function words were words that have little lexical meaning or have ambiguous meaning, but instead serve to express grammatical

relationship with other words within a sentence, or specific attitude or mood of the speaker. They signal the structural relationships that words have to one another and were the glue that holds sentences together. Thus, they served as important elements to the English Structures of sentence. Function words might be preposition, conjunction, determiner and pronoun. All of which belong to group of closed-class words.

1) **Preposition**

Prepositions were words or group of words that is used to show the way in which other words were connected and use to expression the time Examples , for, in, at on.(Azar, 2002 : 45)

2) **Conjungtion**

Conjunctions were words used to link words, phrases or clauses. Some common conjunctions were and, but and or. (Sargeant, 2007 : 109).

3) **Determiners**

Determiners definite article, indefinite article, possessives, demonstrate, and quentifiers. Example, the, a, an, my, this, some, etc.

4) **Pronoun**

Pronoun was a word that used in place of a noun or noun phrases. Example , her, she, they, etc.

Table 2.1

Types of Pronoun

Subject	Object	Possesive Adjective (+ Noun)	Possesivve Pronoun
I	Me	My	Mine
You	You	Yours	Yours
He	Him	His	His
She	Her	Her	Hers
It	It	Its	-
We	Us	Our	Ours
They	Them	Their	Theirs

b. Content Word

Content words were words that have meaning. They can be compered to grammatical words, which were structural nouns, verbs, adjective, and adverbs.

Content words sometime called open class because we can and regularly do add new word to these classes. (Frankin and friends, 2003 : 74).

1. Nouns

Nouns was divided into two types there were common noun and proper noun. Words for people, places and things were called common nouns, e.g, classroom, book, students etc. The names of particular people, places and things were proper nouns. They always begin with a capital

letter e.g, Muhammad Ali, Mike Tyson, Yao Ming. (Sargeant, 2007 : 7-8).

2. Verbs

Verbs was indicate actions, things that happen, e.g. to bring, drink, sing.

3. Adjective

Adjectives was describe qualities of nouns (people and things) - how they appear or behave, e.g. old, tall, foolish, beautiful.

4. Adverb

Adverbs: indicate how a verb (activity) is applied, e.g. gently, fully, badly.

The learner's vocabulary knowledge always grows along with learning the vocabulary, the easier learner comprehends skills in language aspect such as listening, reading, speaking, and writing. Knowing a word is not only learning about the word itself but knowing a word can be more complex. According to Harmer (1991), knowing a word (vocabulary) means knowing about meaning, word use, word formation, and word grammar. To be more specific, here are aspects of knowing the word :

a) Knowing the meaning

Knowing the meaning about the word means knowing meaning in sense relation. For instance the word his means to insult someone but it also refers to a noise made by a snake. Word meaning is also influenced by

metaphors and idioms. For instance idioms keep in touch it means stay having a connection.

b) **Knowing the word use**

Knowing the word use is about knowing the language whether to be used by someone in a formal or informal context, for example "hello" (formal) and "hi" (informal). Word use is also used in choosing word based on to whom we speak for example, we use can for someone who has the same age with us. While, to someone who older than us use could.

c) **Knowing the word formation**

Knowing the word formation means knowing their grammatical contexts. It means that we look at how the suffixes and the prefixes work (im-, or in) such as in imperfect and perfect, inappropriate and appropriate.

d) **Knowing the word grammar**

Knowing the word grammar means knowing the use of words based on the use of certain grammatical patterns such as noun, verb, adjective, adverb, etc. For example :

I went to school yesterday => N-Verb-Adj-Adv.

Learning vocabulary is not just about learning the word but learning vocabulary is more complex than knowing the word. Nation (2001) provides several aspects of vocabulary's depth such as meanings, senses (semantic), associations (antonym, synonymy, hyponymy, and gradation), collocations, morphology (word form), syntax (grammar behavior), etc. In summary, vocabulary is a set of word used in a language that is familiar with the person

or the speaker of the language. In context of learning foreign language, vocabulary is the most crucial aspect because vocabulary can influence language skills such as listening, reading, speaking, and writing. In addition, vocabulary can be an indicator of the success in language learning. When the learner learns vocabulary, they will learn about the word meaning, the use of the word, word formation and word grammar in appropriate context.

D. Types of Vocabulary

According to Nation (2001), there are two kinds of vocabulary. The type of vocabulary is divided based on the vocabulary knowledge, namely receptive and productive vocabulary. The types of vocabulary will be discussed below:

a. Receptive Vocabulary

Receptive vocabulary is learners' words that are generally understood when heard, read or seen without knowing everything about a word in order to understand it fully. Receptive vocabulary is used passively in either listening or reading. There are two units of receptive vocabulary namely, listening vocabulary and reading vocabulary. Listening vocabulary is every word that can be recognized when listens to speech. People may still understand words which they are not exposed to before by using cues such as tone, gesture, the topic of the discussion, and the social context of the conversation. Reading vocabulary is every word that can be recognized when reading. This is generally the largest types of vocabulary because people tends to be exposed to words more by reading than by listening.

b. Productive vocabulary

Productive vocabulary refers to a word which people used within an appropriate context. Productive vocabulary is used actively either in speaking or writing. There are two units of productive vocabulary that are speaking vocabulary and writing vocabulary. Speaking vocabulary is every word that is used by the person in speech. Writing vocabulary is every word that is used in numerous forms of writing from formal essays to twitter feeds. Many written words do not commonly appear in speech. In short, there are four units of vocabulary such as listening vocabulary, reading vocabulary, writing vocabulary, and speaking vocabulary.

c. Vocabulary Size

Vocabulary size refers to the degree of learners' vocabulary. Anderson and Freebody (1981) define vocabulary size as the number of words for which the person knows at least some the significant aspects of meaning. Based on the statement above, it means that vocabulary size of the learner can be measured statistically. There are some ways to measure vocabulary size namely token, type, lemma, and word family. Token refers to any running words that occur in a written or spoken text, type treats repeated tokens as one word, lemma includes a headword and its inflected or reduced forms and word family consists of a headword, its inflected forms, and its closely related derived forms. As FL (foreign language) learners, the best way to measure their vocabulary breadth isbased on how many of words that appear in textbooks (Nation 2001). According to Nation and Beglar (2007) the standard for word

counting is usually based on the word family. For instance, the high frequency word family nation has the following members *nations, national, nationally, nationwide, nationalism, nationalisms, internationalism, internationalisms, nationalizations ,internationalization, nationalist, nationalists, internationalization, nationalist, nationalists, nationalistic, nationalistically, internationalist, internationalists, nationalize, nationalized, nationalizing, nationalization, nationalize, nationalized, nationalizing, nationalization, nationhood.*

In summary, vocabulary size is the breadth of vocabulary knowledge. Vocabulary size can be measured based on how many words that appear in textbook by measured the word family of the word it self.

E. Vocabulary of foreign language learner

People use language to communicate, and so naturally one key issue in vocabulary studies is how much is necessary to enable this communication. Nation states that readers need at least 5.000 words to read texts. This is line with Laufer who had estimated that vocabulary size of 5.000 words indicates that a students knows a relativity high proportion (about 95%) of the running words in a text to read it independently(Nation, 2012 : 1-2).

Luckily, second and foreign language leraners do not need to achieve native like vocabulary size in order to use English well. In indonesia the status of English is as foreign language. University students in Indonesia at less have 1.220 of vocabulary size. Schmitt clasify the size of vocabulary for second and foreign language leraners as follow :

Table 2.2

English vocabulary size of foreign learners

Country	Vocabulary Size	References
Japan (EFL Univeristy)	2.300	Shillaw, 1995
China (English Majors)	4.000	
Indonesia (EFLUniveristy)	1.220	Barrow et al.,1999
Oman (EFL University)	2.000	
Israel(High School Graduates)	3.500	Laufeer, 2001
France (High School)	1.000	Nurwei and Read, 1999
Greece (Age 15, High School	1.680	Horst, Cobb, and
Germany (Age 15, High School)	1.200	Meara, 1998
		Laufer,1998
		Arnaud et al., 1985
		Milton and Meara, 1998
		Milton and Meara,

		1998

The vocabulary size of foreign learners (Thornbury, 2002 : 59) can be seen in the table below :

Table 2.3

Vocabulary Size of Foreign Learners

Easystars	200 words
Level One Beginner	300 words
Level Two Elementary	600 words
Level Three Pre-Intermediate	1200 words
Level Four Intermediate	1700 words
Level Five Upper-Intermediate	2300 words
Level Six Advanced	3000 words

F. The Importance of Vocabulary Learning

As one of the most important aspects of learning foreign language, vocabulary has so many advantages for the learner. There are some advantages of vocabulary cited in Wikipedia. To be more concrete, those will be explained below:

    a) Vocabulary aids expression and communication

By having larger vocabulary, communication will be lively. It means that vocabulary can help people communicate one another. Their conversation will be fluid and will not break down because they can use numerous vocabulary.

b) Vocabulary size has been directly linked to reading

In reading, we have to read a lot of words in the text. Greater vocabularies can help the reader comprehend what they read because in the text we read contains so many vocabularies even uncommon vocabulary..

c) Vocabulary is synonymous with thinking

By having larger vocabulary, people can use various vocabularies without thinking first. Those people who have large vocabularies can recall or memorize vocabulary every time they want when they speak.

d) Person maybe judge by other based on their vocabulary

The more they have vocabulary, the more fluent they speak. Of course, people who speak as well may be smart or educated people.

e) Vocabulary helps speaking ability

Without grammar, little can be conveyed. Without vocabulary, nothing can be conveyed. Speaking doesn't really need grammar because the main point of speaking is to deliver the meaning. As long

as the listener can get the meaning, grammar doesn't really importance.

In brief, vocabulary has many advantages for the person as mentioned above. Such as aids expression and communication, vocabulary size has been directly linked to reading, linguistic vocabulary is synonymous with thinking, a person may be judged by other based on his or her vocabulary and vocabulary helps speaking ability. That is why vocabulary cannot be separated in learning or acquiring a language.

Building vocabulary base. Building up a young learner's English vocabulary is one of the first issues teacher instructing young learners in a foreign language face. Thinking about one object and remembering two identifying names for it can be confusing for young learner.

G. Vocabulary Mastery

Vocabulary is one of the language aspects which should be learnt. Learning it is important because in order to be able to speak, write, and listen learners have to know vocabulary first. A person said to know a word if they can recognize its meaning when they see it (Cameron, 2001: 75). It means that in learning vocabulary learners have to know the meaning of it and also understand and can use it in sentence context. According to John (2000: 16), vocabulary is knowledge of knowing the meanings of words and therefore the purpose of a vocabulary test is to find out whether the learners can match each word with a synonym, a dictionary tape definition, or an equivalent word in their own language. In learning vocabulary automatically they have to know the meaning of words themselves and can use it in sentences.

In brief, vocabulary mastery can be defined as a number of vocabulary (words) in a language which contains information about its meaning, form, and usage in context of communication It is the basic knowledge that students should master first before mastering English. As Chen and Li (2009) acknowledge, vocabulary learning is a principal issue for English learning because it comprises the basic building blocks of English sentences.

The vocabulary mastery is not a spontaneous process which is easy to be done. The process of vocabulary mastery begins when someone is still an infant. Basically, the baby's first language comes from the mother tongue. They will master the vocabulary through the simple words by listening the words which are uttered by someone else. It is known that English vocabulary learning cannot run successfully without English ability (English skills) because both of them are very

important in English teaching and learning process. learning cannot run successfully without English ability (English skills) because both of them are very important in English teaching and learning process. To make the discussion clearer, Harmer's opinion can beadded. In his book, Harmer (2001: 16) says that there are some aspects that have to be discussed in vocabulary, namely: word meaning (synonym, antonym, connotation, and denotation), extending word use such as idioms, word combination or collocation, and the grammar of words which comprises noun, verb, adjective, and adverb.

a. Synonym

The term synonymy derives from Greek: syn-+ - nymy. The two parts mean "same and name". Synonymy deals with sameness of meaning, more than one word having the same meaning, alternatively the same meaning being expressed by more than one word. In other words, synonym is words whose denotation is the same but has different connotation.

b. Antonym

Antonym is the opposite of meaning. It derives from Greek, "ant-and - nymy", the two parts mean "opposite + name" (Jackson, 1988:64). Antonymy deals with oppositeness of meaning. Antonym share not differentiated for formality or dialect or technicality; antonyms occur within the same style, dialect, or register.

Students will be able to understand the names for colours of things

c. Denotation

Denotation is conceptual meaning and dictionary meaning (Tarigan, 1985:58). Keraf (1984:28) says that denotative meaning is also called as some terms such as denotational meaning, cognitive meaning, conceptual meaning, ideational meaning, referential meaning, or proportional meaning. This is called denotational, referential, conceptual, or ideational because the meaning refers to a certain referent, concept, or idea from reference. Keraf (1984) explains that denotative meaning is also called cognitive meaning because the meaning concerns with consciousness or knowledge.

d. Connotation

Connotation is more complicated than denotation. Denotation is the meaning of a word which has added the component of meaning related to emotional overtones (Widarso, 1989: 69). Tarigan (1985) states that connotation is feeling and emotion that occurs within a word. Thus, it can be said that connotation is denotative meaning which is stretched. In other words, connotation is the feeling and emotion associated with a meaning.

H. Kinds of Vocabulary

According to Brown (2011,11), there are some types of vocabulary they are:

a. Reading vocabulary

A person's reading vocabulary is all the words he or she can recognize when reading.

b. Listening vocabulary

A person listening vocabulary is all the words he or she can recognize when listening to speech. This is vocabulary is aided in size by context and tone of voice.

c. Writing vocabulary

A person writing vocabulary is all the words he or she can employ in writing. Contrary to the previous two vocabulary types, the writing vocabulary is stimulated by its user.

d. Speaking vocabulary

A person speaking vocabulary is all the words he or she can use in speech. Due to the spontaneous nature of the speaking vocabulary, words are often misused though slight and unintentional may be compensated by facial expressions, tone of voice, or hand gesture.

I. Vocabulary Size

Vocabulary size refers to the degree of learners' vocabulary. Anderson and Freebody (1981) define vocabulary size as the number of words for which the person knows at least some the significant aspects of meaning. Based on the statement above, it means that vocabulary size of the learner can be measured statistically. There are some ways to measure vocabulary size namely token, type, lemma, and word family. Token refers to any running words that occur in a written or spoken text, type treats repeated tokens as one word, lemma includes a headword and it's inflected or reduced forms and word family consists of a headword, its inflected forms, and its closely related derived forms. As FL (foreign language) learners, the best way to measure their vocabulary bread is

based on how many of words that appear in textbooks (Nation 2001). According to Nation and Beglar (2007) the standard for word counting is usually based on the word family. For instance, the high frequency word family nation has the said that, "the term young learner covers a wide age range. This can be anybody from the age of three to the age of eighteen. There is a big difference between what a – three-year-old child can do and what a child of fifteen can do. We should consider their development too. Some children develop faster, others need more time". The young learners are the students of the elementary school from the age of 6-12 years old. They can be subdivided into two group; they are younger group 6-8 years old" and older group 9-12 years old". According to their level, they are called as students of lower classes such as first, second- and third-year students and upper classes namely fourth, fifth- and six-years students. Meanwhile, Scot and Yterbeg (2010, p. 18) subdivided them into two group, they are level one 5-7 years old and level two 8-10 years old.

J. Concept of Language Learning

According to Lessard-Clouston, (1997), learning strategies (LS) have been defined as behaviors and thoughts which a learner use during learning which are intended to influence the learner's encoding process. While Ekswensi, Moranski, & Townsend-Sweet (2006) state that learning or instructional strategies determine the approach for achieving learning objectives and are included in the pre-instructional activities, information presentation, learner activities, testing and follow through. Based on the definitions above, learning strategy is a device or technique used by learner to help their learning process in order to achieve their

learning objectives. Every learner has their own learning strategy that helps them understand the problem and solve the problem faced in learning process. Another researcher found that learning strategy can be classified into two categories. Griffiths (2001) divides learning strategy into two namely strategy which contribute directly to learn such as clarification / verification, monitoring, memorization, guessing/inductive inference, deductive reasoning, and practice and strategy which contribute indirectly to learning such as creating opportunities for practice, production tricks.

K. Concept of Language Learning Strategy

Oxford (1990) defines Language learning strategy as specific actions, behaviors, steps, or techniques that students, often intentionally use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement which is necessary for developing communicative ability. In other 18 words, language learning strategy can be defined as choices we consciously make about how to manage learning. Therefore, language learning strategy is a step taken by the learners to enhance their learning in language learning to improve their ability in foreign language. Within the field of language acquisition, Language learning strategy has been classified by many theorists. The classifications are known as taxonomies of Language Learning Strategy (LLS). O'Malley (1985) divides LLS into three main sub categories: Metacognitive Strategies, Cognitive Strategies, and Socio-

affective Strategies. Taxonomy of language learning strategy by O'Malley as follows:

1. Cognitive Learning Strategies

O'Malley and Chamot (1990) describe cognitive learning strategies as strategies which operate directly with incoming information. Oxford (2003) states that Cognitive learning strategies enable the L2 learner to manipulate the language material in direct ways, e.g., through reasoning, analysis, note-taking, summarizing, synthesizing, outlining, reorganizing information to develop stronger schemas (knowledge structures),practicing in naturalistic settings, and practicing structures and sounds formally.

2. Metacognitive Learning Strategies

Schmitt (1997) describes metacognitive learning strategies as strategy used by students to control and evaluate their own learning by having an overview of the learning process in general. Oxford (2003) mentions metacognitive learning strategy as the techniques that L2 learners used to identify their own learning style preferences and needs, for planning L2 tasks, for gathering and organizing materials, for arranging a study space and a schedule, for monitoring and evaluating mistakes, and for evaluating the success of their own learning strategies. In short, metacognitive learning strategy is learner's strategy to control their own learning independently.

3. Socio-Affective Learning Strategies

Riankamol, Natpassorn (2008) states that socio-affective strategies are strategies which related to social-mediating activity and transacting with

others. Cooperation and question for clarification are the main socio-affective strategies. This strategy involves interaction with another person or taking control of ones' own feelings on language learning.

4. Concept of Vocabulary Learning Strategies (VLS)

In term of vocabulary learning, Catalán (2003) says that vocabulary learning strategy is a knowledge about the mechanisms (processes and strategies) used in order to learn vocabulary and steps or actions taken by students to find out the meaning of unknown words, to retain them in long-term memory, to recall them at will, and to use them in oral or written mode. Based on the principle above, vocabulary learning strategy is any set of techniques including actions or mental processes that learner uses in order to facilitate their English vocabulary learning with the purpose of enhancing their vocabulary knowledge. Schmitt (1997) develops a comprehensive inventory of vocabulary learning strategies (Table 2.2). He divides the strategy into two groups, namely discovery strategies and consolidation strategies. Then, he further classifies those strategies 20into sub aspect. Discover strategy consists of determination strategies and social strategies while, in consolidation strategy involves social strategies, cognitive strategies, metacognitive strategies and memory strategies. Catalán (2003) believes that this taxonomy is popular because it offers a number of advantages that is not found in other taxonomies.

5. Discovery Strategies

According to Schmitt (1997), these types of vocabulary learning strategies are strategies used to infer the meaning of the unknown words. There are two strategy categories in discovery. These strategies will be explained as follows.

- Discovery-determination is a strategy used by learner to discover new words meaning without another person assisting (e.g. analyzing parts of speech, checking for L1 cognates, guessing from context, and use of bilingual or monolingual dictionary).

- Discovery-socialis a strategy used by the learner to discover new words by asking someone for help (e.g. asking the L2 teacher for an L1translation, asking classmates for meaning, and discovering meaning through a group work activity).

6. Consolidation Strategies

Schmitt (1997) says that consolidation strategies are strategies used to consolidate the meaning of the new word. There are four categories in consolidation strategies. These strategies will be discussed below.

- Consolidation-socialis a strategy where the learner discovers the new words by including in cooperative group learning. learners can study and practice the meaning of new words in a group(e.g. study and practice word meaning in a group and interaction with native speakers),

- Consolidation-memory, this strategy is used by relating the word with some previously learned knowledge by using some form of imagery or grouping (e.g. study word with a pictorial representation of its meaning,

using semantic maps, imaging word form, using keyword mnemonics, and connecting words to a personal experience).

- Consolidation-cognitive, this strategy is similar to memory strategies but it is not focused on manipulative mental processing. They include repetition and using mechanical means (e.g. note-taking, verbal repetition, written repetition, word lists, flash cards, and keeping a vocabulary journal or notebook).

- Consolidation-metacognitive is known as a strategy used by learners to control and evaluate their own learning, by having an overview of the learning process in general (e.g. testing oneself with word tests, use of target language media, using spaced word practice and continuing to study a word over time).

7. The Rule of Vocabulary Learning Strategy in Vocabulary Learning

Nation (2001) states that vocabulary learning strategies are one part of language learning strategies which in turn are part of general learning strategies. While, Wenden (1991) defines language learning strategies as any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information. Based on the principles above, it is clear that vocabulary learning strategy has important role in vocabulary learning because vocabulary learning strategies can help learner to learn vocabulary. Wenden (1998) believes that FL learners with varying levels of FL learning experience and proficiency have acquired some degree of knowledge about language learning which influences their approach to

language learning and the expectations they hold about learning strategies and the outcome of their efforts. The previous researchers proved that VLS used by FL learners may vary depending on the learners' language proficiency and experience with the target language. It is in line with Schmitt (1997). He found that less experienced learner tends to use less learning strategy than the experienced learner. The finding showed that experienced learner has more awareness in using vocabulary learning strategy. It is also supported by Nyikos & Fan (2007) which found that successful language learners show a pattern of selecting more complex, appropriate and task-compatible strategies for learning new words and achieve results comparable to more proficient learners. In short, vocabulary learning strategy helps learner facilitates their learning so that they will achieve their aims in vocabulary learning.

8. EFL Vocabulary Learning

The English language has about 100,000 words. Research indicates that learners need to have access to a minimum of 3,000 words in order to even begin to comprehend authentic texts 21, and students wishing to study in English at a university level may need up to 10,000 words 22. In the book, Vocabulary myths: Applying Second Language Research to Language Teaching, Keith Folse (2004) names dozens of researchers who have dealt with the issue of vocabulary and the problems 23 of:

-How do L2 learners' vocabularies develop?

-Why are some words more difficult to learn than others?

- Is L2 learned more easily through natural context or through direct instruction?

- Which vocabulary learning strategies do students employ?

- Which types of practice activities promote vocabulary learning?

- What effect do certain types of marginal glosses and Internet annotations have on incidental vocabulary learning?

- How does using a dictionary impact vocabulary learning acquisition?

These and many other relevant issues are mentioned and it is a must read for a researcher interested in vocabulary issues.

9. EFL Vocabulary Teaching

Similarly, searching for theoretical background and, at the same time, for practical advice for this investigation, the book "Techniques in Teaching Vocabulary" by Virginia French Allen (1983) was found most useful in this area since it is devoted entirely to the presentation and exemplification of practical techniques in the teaching of vocabulary. Chapters two and three in French Allen's book emphasize the value of visual aids in teaching vocabulary to beginners' classes. Chapter four is about Special Uses of Visual Aids. Chapters five, six and seven are dedicated to Intermediate classes; while Chapters eight and nine are dedicated to advanced classes. Chapter ten to general advice before and after teaching vocabulary. In reference to teaching vocabulary to beginner students, which is the subject of the present research; French Allen explains that teachers at this level use three ways to show the meanings of vocabulary words: (1) Pictures, (2) Explanations in the students'

own language, 203, and (3) Definitions in simple English, using vocabulary that the students already know.

French Allen also mentions that, contrary to what is usually practiced by most teachers in second-language classes today, teachers should try to apply what has been discovered about acquisition of first language vocabulary, and offer their students some experience with an object for which the English word will be taught, before spending much time on drilling the English name for it. For example, teach about people and things in the classroom. Engage students in activities that require those words for the exchange of information or expression of personal feelings. Teachers must make time for having simple communication experiences in the classroom, for having meaningful use of the words.
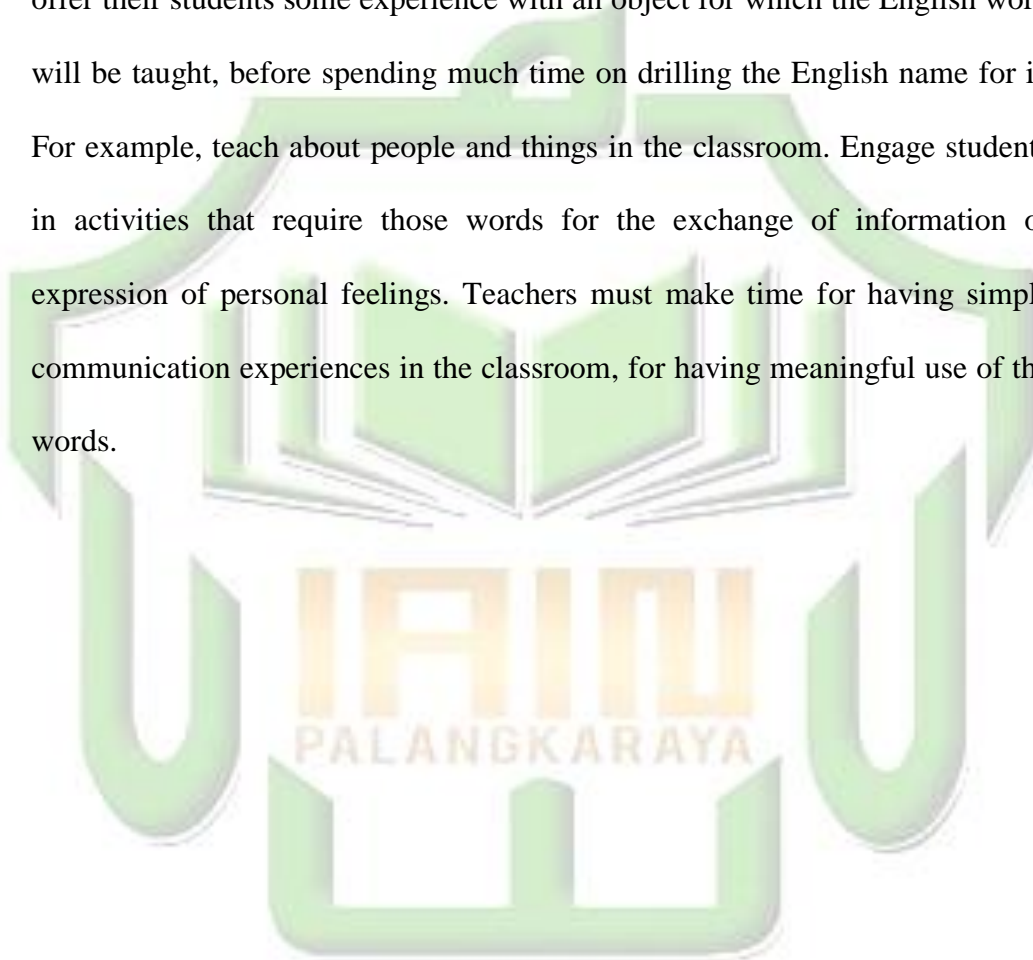
CHAPTER III

RESEARCH METHODOLOGY

This chapter discussed the methodology of the study relating to the design of research, subject and object of the study, population and sample, research instrument, data collection procedures, data analysis procedur.

A. Research Design

This study classify into quantitative research. "Quantitative research deals with the question of relationship, cause, and effect, or current status that the writer can answer by gathering and statistically analyzing numeric data. It can be further classified as experimental and non-experimental" (Ary, Jacobs, Razavieh & Sorenson, 2010, p.26). The researcher use the ex post facto method to do this research because this study compare Vocabulary size between Tadris Fisika and Tadris Biologi students the first semester of IAIN Palangka Raya in the academic year of 2019/2020. Ex Post Facto research is a type of research that attempts to determine the causes for, or consequence of, differences that already exist in groups of individuals (Ary, Jacobs, Razavieh & Sorenson, 2010, p.331). In doing this research, the writer select students where their Science course from purposive. The students received the same tests base on their syllabus of English subject then the researcher compare the result of their tests.

B. Subject of the Study

The subject in this research was a Science Education Students who taught English vocabulary size test, the researcher chose two class of Science, one class of Tadris Fisika and one class of Tadris Biologi to do a research.

The object of the study in this research was the comparative study of Science education students involving the implementation by the vocabulary size test.

C. Population and Sample

1. Population

The population is the larger group to which a researcher wishes to generalize, it includes all members of a defined class of people, events, or objects (Ary, Jacobs, Razavieh & Sorenson, 2010, p.647). The population of this research are Tadris Fisika and Tadris Biologi students the first Semester of sciencedepartment student's at IAIN Palangka Raya.

2. Sample

The sample is the process of selecting a portion of the population to represent the entire population is know n as sample (Ary, Jacobs, Razavieh & Sorenson, 2010, p.148). Sample of this research are Tadris Fisika and Tadris Biologi students the first Semester of science department students at IAIN Palangka Raya. The number of first semester student from science departement at IAIN Pakangka Raya are 65 students. The sample of the research consists of two classes they are the students of Tadris Fisika class A, and Tadris Biologi class A and B. The researcher took 26 Tadris Fisika students and 39 Tadris Biologi students from those classes by purposive sampling using microsoft excel.

D. Research Instrument

It used test and questionnaire as research instrument, the writer do a preliminary test to 65 science students. The importance of it is to gather current information on vocabulary size of those students. Vocabulary size Test by Nation and Beglar (2007). The write chose the Nation's test since it was suggested by Nation (2008) saying that vocabulary size test was related to a diagnostic test. The test consist of vocabulary size test. The students have to find the English meaning of the target words in simple sentence.

E. Data Collection Procedures

The procedures in gathering the data had the best step to collect the data needed in this research. Collection procedures in quantitative research involve three basic types: Give the vocabulary size test and documentation.

1. Vocabulary Size Test

According to Donald Ary et all (2010 : 201) test was a set of stimuli presented to an individual to elicit responses on the basis of which a numeral score can be assigned. The test use to know the students vocabulary size. The researcher adopted the instrument Vocabulary Test from Paul Nation at Victora University of Wellington in New Zealand, it has been used by researchers who needed an estimate of the vocabulary size (Read, 2000 : 118). It is used to asses the first semester students vocabulary levels because these test have been widely used to measure first semester students vocabulary size. They have been tested for reliability for the 2000 Word Level Test, 3000 Word Level Test and 5000 Word Level test. All the

vocabulary on these questions is academic vocabulary. There were 140 questions to became the instruments. The students ask to answer the questions to find meaning.

In order to collect the data, the researcher need an instrument. Since the result of the study influence by instrument, an appropriate instrument should be carefully design and construct.

A test is a very important instrument by which the researcher will get the data of investigation. In this research, the test is use to collect the data. The researcher tests the respondances to know the vocabulary ability. After the data collect, the researcher will compare the vocabulary score of Tadris Fisika and Tadris Biologi students.

3. **Documentation**

This technique is use to collect the data which relate with the research. The data as follow :

1) Total of first semester students of Science Education Program at IAIN Palangka Raya.

2) The result of vocabulary size test.

F. **Data Analysis Procedures**

1. Instrument Validity

Ary et all (2010 : 225) stated that an instrument was considering being a good one if it meets some requirements. One of them is validity. Validity instrument measured what it claimed to measure. The validity of a test is the extent to which it measures what is supposed to measure and nothing else.

Every test, whether it is a short, informal classroom test or a public examination should be valid the constructor can make it. The test must aim to provide a true measure of a particular skill that it is intended to measure, to extent that is measure external knowledge and other skills at the same time, it will not be a valid test. Content, criterion, and construct validity became the three main foci for the test validation.

Content Validity reffer to a test consisting adequate content to measure the desire ability to trait. Content validity refers to the degree to which the sample of items, tasks, or questions on a test representative of some define universe or domain of content. In the present study, vocabulary size test conssist of 140 test items. The students are answer to find the definition or the closest meaning to the question. It is present by multiple choice. Ary et all also state face validity is a term sometimes use in connection with a test's content. Face validity refers to the extent to which examinees believe the instrument is measuring what it is suppouse to measure. The vocabulary test instrument use to measure the vocabulary size.

According to Heaton (1974 : 10) a good test should posses' validity: that is it should measure what it is intend to measure and nothing else. If a test does this, it said to be valid. All of the test items must relate to what students learned. In this study the instrument for collecting the data must be valid. It means the items in the instrument are equal and proportional in their distribution as the indicators of test.

The researcher would not measure the construct validity because the instruments that have been widely use to measure L2 students vocabulary size. In line with Engku Haliza Ibrahim (2016 : 118) in his study that use same instruments, in his study, he said that " The vocabulary Levels Tests (VLT) Version 2 from Schmitt were use to asses the pre-sessional students' vocabulary. This study adopted the above test as these were the test that have been widely used to measure L2 students' vocabulary.
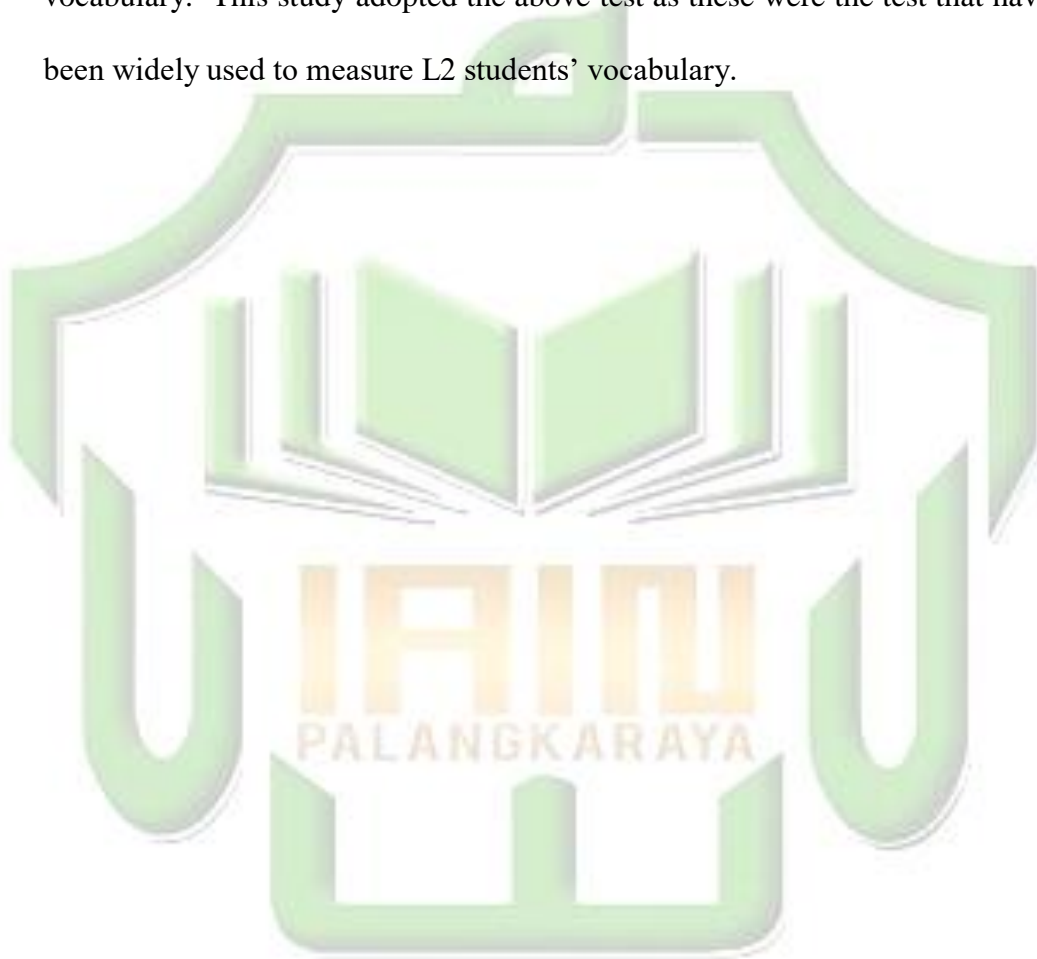
CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

This researcher presents the data which had been collected from the research in the field of study which consists of description of the data, result of data analysis, and discussion.

A. Analysis of Vocabulary Size Test Score

1. The Result of Tadris Biologi Students' Vocabulary Size Test Score

The following table showed about the vocabulary sizetest scores of Tadris Biologi students :

Table 4.1

The Result of Tadris Biologi Students' Vocabulary Size Test Score

CODE	Score (X_1)	$(X_1)^2$	Vocabulary size
A1	34	1.156	3400
A2	38	1.444	3800
A3	42	1.764	4200
A4	67	4.489	6700
A5	61	3.721	6100
A6	71	5.041	7100
A7	77	5.929	7700
A8	40	1.600	4000

44

A9	91	8.281	9100
A10	102	10.404	10200
A11	31	961	3100
A12	54	2.916	5400
A13	32	1.024	3200
A14	32	1.024	3200
A15	40	1.600	4000
A16	58	3.364	5800
A17	69	4.761	6900
A18	28	784	2800
A19	35	1.225	3500
A20	35	1.225	3500
Sum	**1.037**	**62.713**	**103700**
Lowest Score	**28**		**2800**
Highest Score	**102**		**10200**
Mean	**51,85**		**5185**
Standard Deviation	**21,1478**		

Based on the calculation, variable X_1 was found $\sum X_1 = 1.037$ and $\sum X_1^2 = 62.713$. Based on the data above, it was known that the highest score was 102

and the lowest score was 28.The classification of the students' scores can be seen in the table below.

Table 4.2

Distribution of Tadris Fisika Students' Vocabulary Size Test Score

No .	Category	Frequency
1	Score >100	1
2	Score 70 – 100	3
3	Score 50 – 69	5
4	Score < 50	11
	Total	**20**

Based on the data above, can be seen the variation of scores. Based on the calculation there were onestudents who acquired score above 100, three students who acquired score between 70 and 100, five students who acquired score between 50 and69, and eleven student who acquired score under 50.

The following is chart about the frequency listening test scores.

Figure 4.1

The Frequency of Listening Comprehension Test Score
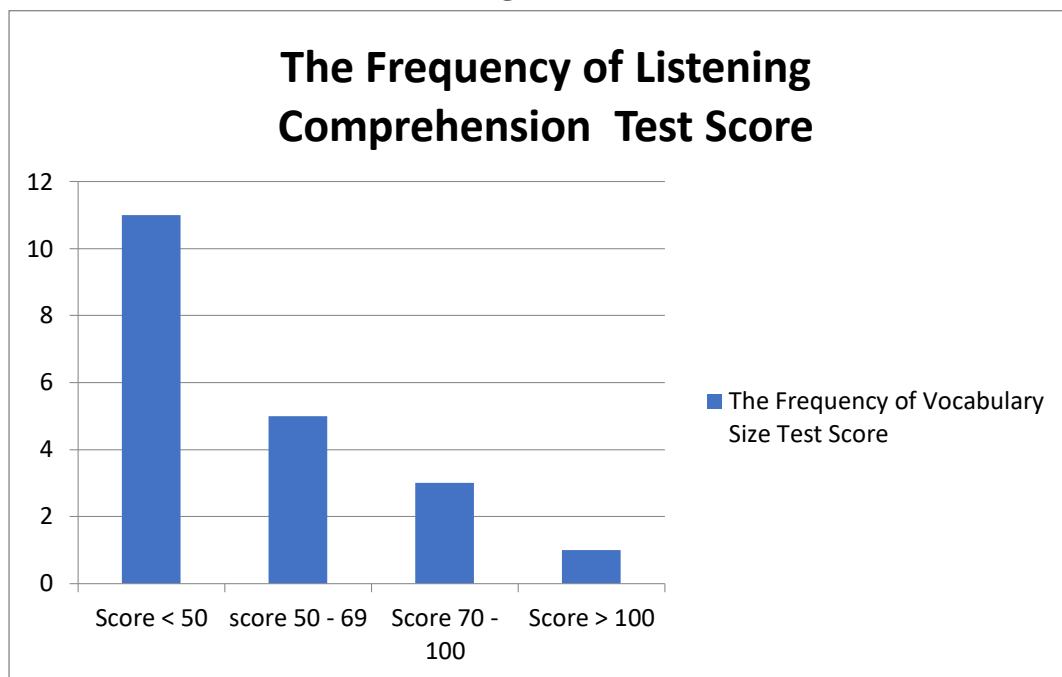
2. **The Result of Tadris Fisika Students' Vocabulary Size Test Score**

The following table showed about the vocabulary sizetest scores of

TFS students.

Table 4.3

The Result of Tadris Fisika Students' Vocabulary Size Test Score

CODE	Score (X_1)	$(X_1)^2$	Vocabulary Size
B1	92	8.464	9200
B2	85	7.225	8500
B3	84	7.056	8400
B4	107	11.449	10700
B5	59	3.481	5900

B6	44	1.936	4400
B7	49	2.401	4900
B8	69	4.761	6900
B9	41	1.681	4100
B0	70	4.900	7000
B1	52	2.704	5200
B12	64	4.096	6400
B13	63	3.969	6300
B14	55	3.025	5500
B15	73	5.329	7300
B16	73	5.329	7300
B17	61	3.721	6100
B18	38	1.444	3800
B19	40	1.600	4000
B20	35	1.225	3500
Sum	**1.254**	**85.796**	**125400**
Lowest Score	**35**		**3500**
Highest Score	**107**		**10700**
Mean	**62,7**		**62700**
Standard	**18,9344**		

	Deviation		

Based on the calculation, variable X_1 was found $\sum X_1 = 1.254$ and $\sum X_1{}^2 = 85.796$. Based on the data above, it was known that the highest score was 107 and the lowest score was 35. The classification of the students' scores can be seen in the table 4.4

Table 4.4

Distribution of Tadris Fisika Students' Vocabulary Size Test Score

No .	Category	Frequency
1	Score >100	1
2	Score 70 – 100	6
3	Score 50 – 69	7
4	Score < 50	6
	Total	**20**

Based on the data above, can be seen the variation of scores. Based on the calculation there were onestudents who acquired score above 100, six students who acquired score between 70 and 100, seven students who acquired score between 50 and69, and six student who acquired score under 50.

The following is chart about the frequency of Vocabulary Size Test Score

Figure 4.2

The Frequency of Vocabulary Size Test Score
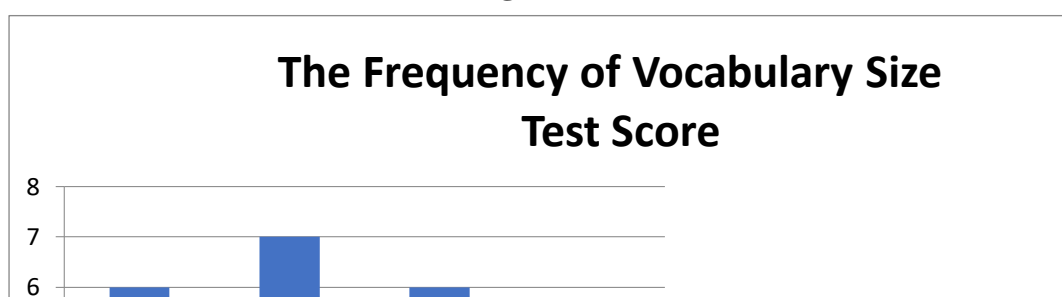
3. The Average of Tadris Biologi Students' Vocabulary SizeTest Scores

To find the average of the Tadris Biologi students'vocabulary size test scores, it used the formula as follow :

$$M = \frac{\sum X1}{N}$$

Where :

M   = Mean

$\sum X_1$ = the sum of scores

N   = number of the students

It is known that :

M   = 51,85

$\sum X_1$ = 1.037

N   = 20

As the calculation above, the average scores of Tadris Biologi students was 51,85.To Find out the vocabulary size, the score is multified by 100 (Nation, 2012) . Therefore, the mean score 51,85 suggests that the Tadris Biologi students' average vocabulary size was 51,85 words.

4. **The Average of Tadris Fisika Students' Vocabulary Size Test Scores**

To find the average of the Tadris Fisika students' vocabulary size test scores, it used the formula as follow :

$$M = \frac{\sum X1}{N}$$

Where :

M   = Mean

$\sum X_1$ = the sum of scores

N   = number of the students

It is known that :

M   = 62,70

$\sum X_1$ = 1.254

N   = 20

As the calculation above, the average scores the students' vocabulary size test score was 62,7. To Find out the vocabulary size, the score is multified by 100 (Nation, 2012) . Therefore, the mean score 62,70 suggests that the Tadris Fisika students' average vocabulary size was 6270 words.

B. Homogeneity Test

Homogeneity testing is used to find out whether the two groups have the same level of data variance. In this study homogeneity tests were carried out with the help of SPSS version 16.0 for Windows. Homogeneity test results are presented in table 4.5 below:

Table 4.5

Homogeneity test result

Test of Homogeneity of Variances

Vocabulary Size

Levene Statistic	df1	df2	Sig.
.743	1	38	.394

The results of calculations in table 4.5 can be seen that the significance values 0.137> 0.05 then the data is homogeneous.

C. Normal Distribution

In this study, the writer used One-Sample Kolmogorov-Smirnov Test to test normality. The variable to test is Vocabulary Size Test Score of Tadris Biologi and Tadris Fisika students. The results of calculating the nominality using SPSS 16.00 for Windows are presented in table 4.6 below:

Table 4.6

Normality Test Result

One-Sample Kolmogorov-Smirnov Test

		TBG	TFS
N		20	20
Normal Parameters[a]	Mean	51.8500	62.7000
	Std. Deviation	2.16971E1	1.94262E1
Most Extreme Differences	Absolute	.225	.098
	Positive	.225	.098
	Negative	-.136	-.077
Kolmogorov-Smirnov Z		1.007	.438
Asymp. Sig. (2-tailed)		.263	.991

a. Test distribution is Normal.

Based on data obtained from the Kolmogorof-smirnov test calculations it can be seen that the Tadris Biologi study program has an Asymp sig of 0.263> 0.05 and a Tadris Fisika study program of 0.991> 0.05 so that the data is normally distributed.

D. Hypotesis Test

1. The Comparation on English Vocabulary Size Between Tadris Biologi and Tadris Fisika Students

The test that is used next is the t-test that is to find out the comparison of the two means derived from the two data distributions of the results of the Vocabulary Size Test of Tadris Biologi and Tadris Fisika Students are presented in table 4.7 below:

Table 4.7
The Result of Tadris Biologi and Tadris Fisika Students'
Vocabulary SizeTest Score

CODE (TBG)	Vocabulary Size (X_1)	$(X_1)^2$	CODE (TFS)	Vocabulary Size (X_1)	$(X_1)^2$
A1	34	1.156	B1	92	8.464
A2	38	1.444	B2	85	7.225
A3	42	1.764	B3	84	7.056
A4	67	4.489	B4	107	11.449
A5	61	3.721	B5	59	3.481
A6	71	5.041	B6	44	1.936
A7	77	5.929	B7	49	2.401
A8	40	1.600	B8	69	4.761
A9	91	8.281	B9	41	1.681
A10	102	10.404	B0	70	4.900
A11	31	961	B1	52	2.704
A12	54	2.916	B12	64	4.096
A13	32	1.024	B13	63	3.969
A14	32	1.024	B14	55	3.025
A15	40	1.600	B15	73	5.329
A16	58	3.364	B16	73	5.329

A17	69	4.761	B17	61	3.721
A18	28	784	B18	38	1.444
A19	35	1.225	B19	40	1.600
A20	35	1.225	B20	35	1.225

The next test that is used after the prerequisite test and descriptive statistical analysis is the hypothesis test. The test used is the t test, with the following formula:

$$\text{t-Test} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left[\frac{SD_1^2}{N_1 - 1}\right] + \left[\frac{SD_2^2}{N_2 - 1}\right]}}$$

a. To find Out $(SD_1)^2$ and $(SD_2)^2$ the formula that used :

1) $(SD_1)^2 = \frac{\sum X_1^2}{N_1} - (\bar{X}_1)^2$ dengan $\bar{X}_1 = \frac{\sum X_1}{N_1}$

$$\bar{X}_1 = \frac{\sum X_1}{N_1} = \frac{1037}{20} = 51{,}85$$

$$(SD_1)^2 = \frac{\sum X_1^2}{N_1} - (\bar{X}_1)^2$$

$$= \frac{62713}{20} - (51{,}85)^2$$

$$= 3135{,}65 - 2688{,}423$$

$$= 447{,}228$$

2) $(SD_2)^2 = \frac{\sum X_2^2}{N_2} - (\bar{X}_2)^2$ dengan $\bar{X}_2 = \frac{\sum X_2}{N_2}$

$$\bar{X}_2 = \frac{\sum X_2}{N_2} = \frac{1254}{20} = 62{,}7$$

$$(SD_2)^2 = \frac{\sum X_2{}^2}{N_2} - (\bar{X}_2)^2$$

$$= \frac{85796}{20} - (62{,}7)^2$$

$$= 4289{,}8 - 3931{,}29$$

$$= 358{,}51$$

b. To find out t_{count}

$$t_{hitung} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left[\frac{SD_1^2}{N_1 - 1}\right] + \left[\frac{SD_2^2}{N_2 - 1}\right]}}$$

$$= \frac{51{,}85 - 62{,}7}{\sqrt{\left[\frac{447{,}228}{20 - 1}\right] + \left[\frac{358{,}51}{20 - 1}\right]}}$$

$$= \frac{-10{,}85}{\sqrt{23{,}54 + 18{,}87}}$$

$$= \frac{-10{,}85}{\sqrt{42{,}41}}$$

$$= \frac{-10.85}{6{,}512} = -1{,}666$$

c. To compare t_{count} dengan t_{table}

Significant level $\alpha = 0{,}05$ dan degree of freedom (db) = N – 2 = 40

– 2 = 38with t_{tabel}= 2,02439.

d. Conclution

Ift_{count}>t_{tabel}means H₀ rejected

Ift_{count}≤ t_{tabel} means H₀ accepted

Conclusion = -1,666 <2,02439, it means that H0 is accepted. This means that there is no significant difference between the results of the Vocabulary Size Test of Tadris Fisika study program students and Tadris Biologi study program students at IAIN Palangka Raya.

The t-test value can also be found using the Independent Sample Test with the help of the SPSS version 16.0 for Windows program as shown in the following table 4.8:

Tabel 4.8

Independent Sample Test

Group Statistics

	Prodi	N	Mean	Std. Deviation	Std. Error Mean
Vocabulary Size	TBG	20	51.8500	21.69714	4.85163
	TFS	20	62.7000	19.42624	4.34384

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Vocabulary Size	Equal variances assumed	.743	.394	-1.666	38	.104	-10.85000	6.51208	-24.03302	2.33302
	Equal variances not assumed			-1.666	37.545	.104	-10.85000	6.51208	-24.03828	2.33828

Based on table 4.8 above, it can be seen that the Vocabulary Size test results of Tadris Biologi study program students have an average (mean) of 51.85. Whereas the Tadris Fisika study program students had an average of 62.7.

Thus the results of the Vocabulary Size Tadris Fisika study program students have an average higher than the results of the Vocabulary Size Tadris Biologi study program students. The magnitude of tcount = -1.666 while ttable = 2.02439, this means tcount<ttable then H0 is accepted

Based on the data analysis above, it can be concluded that there is no significant difference between the results of the Vocabulary Size Test of Tadris Biologi study program students and Tadris Fisika study program students at IAIN Palangka Raya.

E. **Discusstion**

Recapitulation of research results in tabular form aims to illustrates the differences in the results of the Vocabulary Size Test of Tadris Fisika study program students and Tadris Biologi study program students at IAIN Palangka Raya, as in the following table 4.9:

Tabel 4.9

Recapitulation of Research Results

Research Hypothesis	Research Result	Interpretation Criteria	Interpretation	Conclution

There is a significant difference between the results of the Vocabulary Size Test of Tadris Fisika study program students and Tadris Biologi study program students at IAIN Palangka Raya	$t_{count} = -1,666$	$t_{table} = 2,02439$	H_0 Accepted H_a Rejected	There was no significant difference between the results of the Vocabulary Size Test of Tadris Biologi study program students and Tadris Fisika study program students at IAIN Palangka Raya.

CHAPTER V

CONCLUSION AND SUGGESTION

This chapter presents conclusions and suggestions related to what the researcher analyzed and discussed.

A. Conclusion

Based on the calculating using SPSS 16.0 program regression linear and the test, the result showed :

1. Based on the data analysis , it can be concluded that there is no significant difference between the results of the Vocabulary Size Test of Tadris Biologi study program students and Tadris Fisika study program students at IAIN Palangka Raya.

2. Hypothesis (Ha) stating that there is significance correlation it meant (Ha) was rejected.

3. Thus the results of the Vocabulary Size Tadris Fisika study program students have an average higher than the results of the Vocabulary Size Tadris Biologi study program students. The magnitude of tcount = -1.666 while t_table = 2.02439, this means tccount < ttable then H0 is accepted. The writer assumed why Tadris Fisika students got higher score than Tadris Biologi students at Tadris Fisika department used some books that contains with English words so they are more familiar with vocabulary in English.

4. It can be seen that the Vocabulary Size test results of Tadris Biologi study program students have an average (mean) of 51.85. Whereas the Tadris Fisika study program students had an average of 62.7. To Find out the vocabulary size, the score is multified by 100 (Nation, 2012). Therefore, the mean score 62,70 suggests that the Tadris Biologi students' average vocabulary size was 5185 words and Tadris Fisika students' average vocabulary size was 6270 words. As stated by Hirsh and Nation (1992) having a vocabulary size of around 5000 word families should give enough contribution to enable learners to read authentic text. It means that with around 5000 words, students are already familiar with almost 89 words per 100- words text (Nation and Warring, 1997).

The result of this study is in line with Riyo Irfan Subrata, in his study under the tittle *Designing A Vocabulary Size Test for The Fourth- Year ELESP Students of Sanata Dharma University*. This research showed that the average students' vocabulary size was around 5000 words.

B. **Suggestion**

Based According to the conclusion in the result of study, the writer would like to propose some suggestions for the students, teachers and the future researcher as follow:

1. For the Students

The students are expected to increase their vocabulary size by learning independently and reading broadly many types of text genres. The writer also

expects that they can practice it in order to develop their English Level quality.

2. For the Science Education students Study Program at IAIN Palangka Raya

 The author hopes that the physics and biology study program can prepare more English language reference books and make English courses in their majors not just supplementary SKS courses. because English is a language that is used globally, so that students who do not study English majors can understand English

3. For the other or next Researchers

 The writer expects to the next researchers that the next researchers can use this study as references for their study in the future. If they want to continue this study, The writer has some suggestions, there are :

 a. The researcher expects to the next researchers can use this study as references for their study in the future. If they want to continue this study, The researcher has some suggestions, there are :

 1. Adding more sample, because the higher the sample the finding study will be generalized.

 2. Using case study research because it is valuable to investigate phenomena continously to out the facts. The data also can be anallyzed both quantitative and qualitative study so the investigation and exploration of the data finding thoroughly and deeply.

3. Using another Vocabulary size test. The writer suggest they can use EVST test based on yes/no test where the learner indicates whether a word is known or not known. And because the test use internet vocabulary size can be calculated directly.

REFERENCES

Ary, D ., Jacobs. L. C., & Sorensen, C . (2010). *Introducing to Research in Education* (8th ed) California: Wadsworth.

Afriando, Barry April 8th 2015. *A Survey of English Vocabulary Size in Senior High School*. Bandar Lampung . Language and Arts Education Department Faculty of Teacher Training and Education.

Anderson, Richard C. And Peter Freebody. (1981). *Vocabulary Knowledge. Comprehension and Teaching*: Research Review. John T. Guthrie. N (Eds), 77-177. DE: International Reading Association.

Bough C. Albert & Cable Thomas. 2002, *A History of The English language 5th Edition*, London : Pearson Education.

Cohen, Louis et all. 2000, Research Methods In Education 5th Edition, London : Routledge Falmer.

Donald, Ary et.al.. 1972, *Introduction to Research in Education*. Canada: simullataneously.

Framkin, Victoria et all. 2003, An *Introductionto Language Seventh Edition* , United States : Wadsworth

Galderen Van Elly. 2006, *A History of The English Language*, Amsterdam/Philadelphia : John Benjamins Publishing Arizona State Univeristy.

Hadavi, Maryam and Zahra Hashemi. *Compare use and preference of Vocabulary Learning Strategies (VLS) among freshmen and senior EFL medical sciences students.* Rafsanjan University of Medical Sciences, Iran.

Harmer, Jeremy. 1991. The *Practice of English Language Teaching*. New York: Longman.

Hanson Susan & Padua F.M. Jennifer, *Teaching Vocabulary Explicitly*, Pacific Resources for Education and Learning.

Heaton, JB. 1974, *English Language Test,* Longman.

Hiebert H. Elfrieda & Kamil L. Michael. 2005, *Teaching And Learning Vocabulary,* New Jersey : Lawrence Erlbaum Associates.

Nation, Paul. 2012, *Vocabulary Test*.

Nation, Paul and David Beglar. 2007. A Vocabulary Size Test. The Language Teacher Journal, 31(7): 9-13.

Nugraha, Aria. *A Comparative Study of Vocabulary Size among Different Vocabulary Learning Strategies Use*. Bandar lampung. Universitas Lampung.

Read, John. 2000, *Assessing Vocabulary*, Cambridge : Cambridge UniversityPress.

Riduwan. 2007, *Metode dan Teknik Menyusun Tesis*, Bandung : Alfabeta

Sargeant, Howard, 2007, *Basic English Grammar for English Learners*, United States : Saddleback Educational Publishing.

Schmitt, Norbertt. 2010, *Researching Vocabulary*, United Kingdom : Palgrave MacMillan.

Scnmitt, Norbert. 2000, *Vocabulary in Language Teaching*, Cambridge : Cambridge University Press.

Seaton Anne & Mew Y.H. 2007, *Basic English Grammar*, United States America : Saddleback Educational Publishing.

Shepherd Peter & Mitchell Gregory Unsworth, *The Speed Reading Course*.

Suryabrata, Sumardi. 2003, *Metodologi Penelitian*, Yogyakarta : Raja Grafindo Persada.

Thornbury, Scott. 2002, *How To Teach Vocabulary*, England : Pearson Education .

Sugiyono, (2013). *Metode Penelitian Kuantitatif, Kualitatif dan R and D*, Bandung, ALFABETA

Waldvogel, D. 2013. *The Relationships between Vocabulary Learning Strategies and Vocabulary Size among Adult Spanish Foreign Language Learners*. Journal of Language Teaching and Research, Vol. 4, No. 2, (pp. 209-219).