



**THE CORRELATION BETWEEN VOCABULARY  
MASTERY AND SPEAKING MASTERY AT  
GRADE VIII STUDENTS OF SMP N 5  
PADANGSIDIMPUAN**

**A THESIS**

Submitted to the State Institute for Islamic Studies (IAIN)  
Padangsidimpuan as a Partial Fulfilment of the Requirement for the  
Graduated Degree of Education (S. Pd.) in English

Written by:

**ANRY ANI**  
Reg. Number. 1620300008

**ENGLISH EDUCATION DEPARTMENT**

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

2021



THE CORRELATION BETWEEN VOCABULARY  
MASTERY AND SPEAKING MASTERY AT  
GRADE VIII STUDENTS OF SMP N 5  
PADANGSIDIMPUAN

A THESIS


Submitted to the State Institute for Islamic Studies (IAIN)  
Padangsidimpuan as a Partial Fulfilment of the Requirement for the  
Graduated Degree of Education (S. Pd.) in English

Written by:

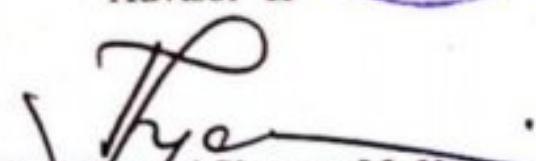
ANRY ANI  
Reg. Number. 1620300008



Advisor I

  
Dr. Fitriadi Lubis, M. Pd  
NIP. 19620917 199203 1 002

Advisor II

  
Fitri Hayani Siregar, M. Hum  
NIP. 19620731 200912 2 004

ENGLISH EDUCATION DEPARTMENT  
TARBIYAH AND TEACHER TRAINING FACULTY  
STATE INSTITUTE FOR ISLAMIC STUDIES  
PADANGSIDIMPUAN  
2021



LETTER OF AGREEMENT

Term : Munaqosyah  
Item : 7 (seven) exemplars

Padangsidempuan, 18 Februari 2021  
a.n. Anry Ani  
To: **Dean**  
**Tarbiyah and Teacher Training Faculty**  
In-  
Padangsidempuan

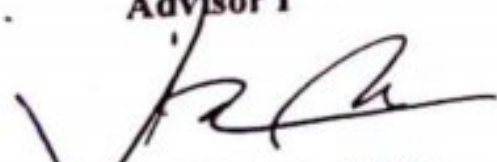
*Assalamu 'alaikum wr.wb.*

After reading, studying and giving advice for necessary revision on the thesis belongs to Anry Ani entitled "**The Correlation between Vocabulary Matery and Speaking Mastery at Grade VIII Students of SMP N 5 Padangsidempuan**". We assumed that the thesis has been acceptable to complete the assignments and fulfill the requirements for graduate degree of Education (S.Pd) in English Education Department, Tarbiyah and Teacher Training Faculty in IAIN Padangsidempuan.

Therefore, we hope that the thesis will soon be examined by the Thesis examiner team of English Education Department of Tarbiyah and Teacher Training Faculty IAIN Padangsidempuan. Thank you.

*Wassalam 'alaikumwr.wb.*

Advisor I

  
Dr. Eltriadi Lubis, M.Pd.  
NIP. 19620917 199203 1 002

Advisor II

  
Ritri Rayani Siregar, M.Hum.  
NIP. 19820731 200912 2 004

**DECLARATION LETTER OF WRITING OWN THESIS**

The name who signed here:

Name : Anry Ani  
Reg. Number : 16 203 00008  
Faculty/Department : Tarbiyah and Teacher Training Faculty/ TBI-1  
The title of the Thesis : **THE CORRELATION BETWEEN  
VOCABULARY MASTERY AND SPEAKING  
MASTERY AT GRADE VIII STUDENTS OF  
SMP N 5 PADANGSIDIMPUAN**

I hereby declare that I have arranged and written the Thesis by myself, without asking for illegal help from the others, except the guidance from advisors, and without plagiarism as it is required in students' ethic code of IAIN Padangsidimpuan in article 14 verse 2.

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

Padangsidimpuan, 14 Februari 2021  
Declaration Maker



*Anry Ani*  
Anry Ani  
Reg. Number 16 203 00008



## AGREEMENT PUBLICATION OF FINAL TASK FOR ACADEMY CIVITY

---

As academic cavity of the State Institute for Islamic Studies Padangsidempuan, the name who signed here:

Name : Anry Ani  
Registration Number : 16 203 00008  
Faculty/Department : Tarbiyah and Teacher Training Faculty/TBI-1  
Kind : Thesis


To develop of science and knowledge, I hereby declare that I present to the state institute for Islamic Studies Padangsidempuan Non Exclusive Royalty Right on my thesis with entitled: **"The Correlation between Vocabulary Mastery and Speaking Mastery at Grade VIII Students of SMP N 5 Padangsidempuan"** With all the sets of equipments (if needed). Based on the this non-exclusive royalty right, the State Institute for Islamic Studies Padangsidempuan has the right to save, to format, to organize in data base form, to keep and to publish thesis for as I am determined as a writer and owner of its creative right.

Based on the statement above all, this statement is made true heartedly to be used properly.

Padangsidempuan, 14 Februari 2021

Signed



  
Anry Ani  
Reg. Num. 16 203 00008


**EXAMINERS**  
**SCHOLAR MUNAQOSYAH EXAMINATION**

Name : Anry Ani  
Registration Number : 16 203 00008  
Faculty/Department : Tarbiyah and Teacher Training Faculty/ TBI-1  
The Tittle of Thesis : **The Correlation between Vocabulary Mastery and Speaking Mastery at Grade VIII Students of SMP N 5 Padangsidimpuan**


Chief,


Secretary,

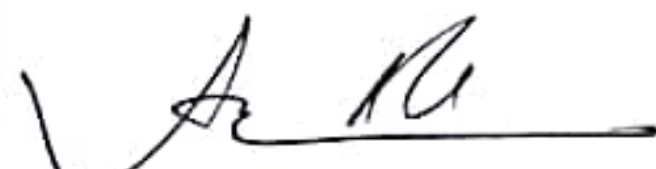
  
Fitri Rayani Siregar, M.Hum.  
NIP. 19820731 200912 2 004


  
Shokira Linda Vinde Rambe, M. Pd  
NIP. 19851010 201903 2 007

Members,

  
Fitri Rayani Siregar, M.Hum.  
NIP. 19820731 200912 2 004

  
Shokira Linda Vinde Rambe, M. Pd  
NIP. 19851010 201903 2 007

  
Dr. Fitriadi Lubis, M. Pd  
NIP.19620917 199203 1 002

  
Sri Rahmahani Siregar, M.Pd  
NIDN. 2006058602

Proposed:

Place : Padangsidimpuan  
Date : April, 9<sup>th</sup> 2021  
Time : 14.00 WIB until finish  
Result/Mark : 85,75 (A)  
IPK : 3,52  
Predicate : Pujian





**RELIGION MINISTRY INDONESIAN REPUBLIC**  
**STATE INSTITUTE FOR ISLAMIC STUDIES PADANGSIDIMPUAN**  
TARBIYAH AND TEACHER TRAINING FACULTY  
Alamat: Jl. H.T. Rizal Nurdin Km. 4,5 Telp. (0634) 22080 Sihitang 22733  
Padangsidempuan

---

### LEGALIZATION

Thesis : The Correlation between Vocabulary Mastery and  
Speaking Mastery at Grade VIII Students of SMP N  
5 Padangsidempuan

Written By : ANRY ANI

Reg. No : 16 203 00008

Faculty/Department : Tarbiyah and Teacher Training Faculty/TBI

The Thesis had been accepted as a partial fulfillment of the Requirement  
for Graduate Degree of Education (S.Pd.)





**Name** : AnryAni  
**Reg. No** : 16 203 00008  
**Faculty** : Tarbiyah and Teacher Training Faculty  
**Department** : English Education (TBI-1)  
**Title of Thesis** : The Correlation Between Vocabulary Mastery and Speaking Mastery at grade VIII Students of SMP N 5 Padangsidempuan.

### **ABSTRACT**

This research discussed about the correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan. The students problem in this research were: 1) Students consider that learning English is very difficult 2) Students are worried about making mistake 3) Students have less confidence 4) Students are lack of English vocabulary. The purpose of this research are to know of how significant the correlation between vocabulary mastery and speaking mastery at grade VIII Students of SMP N 5 Padangsidempuan.

The formulation of the problem in this research was, how is the students' vocabulary mastery at grade VIII students of SMP N 5 Padangsidempuan, how is the students' speaking mastery at grade VIII students of SMP N 5 Padangsidempuan and is there a significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan. The purpose of this research was to describe the level of vocabulary mastery at grade VIII students of SMP N 5 Padangsidempuan, to describe the speaking mastery at grade VIII students of SMP N 5 Padangsidempuan and to find out the correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan.

The kinds of this research was quantitative research with correlational method. 22 students were gotten by Slovin formula and chosen randomly from 7 classes as the sample. 5 students were from VIII-1, 3 students were from VIII-2, 3 students were from VIII-3, 2 students were from VIII-4, 2 students were from VIII-5, 3 students were from VIII-6, 4 students were from VIII-7. In this research the researcher used the way to take sample is used by lottre.

To analyze the data, the researcher use Product Moment formula. After analyzing the data, the researcher found that mean score of variable X was 73,60 and mean score of variable Y was 69,77. Besides, the score of  $r_{xy}$  was more than  $r_{table}$   $0.737 > 0,423$ . The result showed that there was any significant correlation between two variables. It means the hypothesis ( $H_a$ ) was accepted and ( $H_o$ ) was rejected. It was concluded that there was any significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan and the criteria score interpretation between Vocabulary Mastery and Speaking Mastery students of SMP N 5 Padangsidempuan in high category.

**Key words:** *Vocabulary Mastery, Speaking Mastery*



**Nama** : AnryAni  
**NIM** : 16 203 00008  
**Fakultas** : Fakultas Tarbiyah dan Ilmu Keguruan  
**Jurusan** : Tadris Bahasa Inggris (TBI-1)  
**Judul Skripsi** : Hubungan antara Penguasaan Kosakata dan Penguasaan Berbicara pada kelas VIII siswadari SMP N 5 Padangsidempuan

### **ABSTRAK**

Penelitian ini membahas tentang hubungan antara penguasaan kosakata dan penguasaan berbicara pada siswa kelas VIII di SMP N 5 Padangsidempuan. Masalah siswa dalam penelitian ini adalah: 1) Siswa menganggap bahwa belajar Bahasa Inggris sangat sulit 2) Siswa takut salah 3) Siswa Kurang percaya diri 4) Siswa tidak memiliki kosakata Bahasa Inggris. Tujuan dari penelitian ini adalah untuk mengetahui seberapa signifikan hubungan antara penguasaan kosakata dan penguasaan berbicara pada siswa kelas VIII di SMP N 5 Padangsidempuan.

Formulasi masalah di dalam penelitian ini adalah, bagaimana penguasaan kosakata pada siswa kelas VIII di SMP N 5 Padangsidempuan, bagaimana penguasaan berbicara pada siswa kelas VIII di SMP N 5 Padangsidempuan dan apakah ada makna penting antara penguasaan kosakata dan penguasaan berbicara pada siswa kelas VIII di SMP N 5 Padangsidempuan. Tujuan dari penelitian ini adalah untuk menggambarkan tingkat penguasaan kosakata pada siswa kelas VIII di SMP N 5 Padangsidempuan, untuk menggambarkan tingkat penguasaan berbicara pada siswa kelas VIII di SMP N 5 Padangsidempuan dan untuk mencari tahu korelasi antara penguasaan kosakata dan penguasaan berbicara pada siswa kelas VIII di SMP N 5 Padangsidempuan.

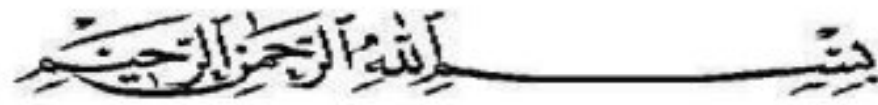
Jenis penelitian ini adalah penelitian kuantitatif dengan metode correlational. 22 siswa di ambil melalui rumus slovin dan di pilih secara acak dari 7 kelas sebagai sampel. 5 siswa dari kelas VIII-1, 3 siswa dari kelas VIII-2, 3 siswa dari kelas VIII-3, 2 siswa dari kelas VIII-4, 2 siswa dari kelas VIII-5, 3 siswa dari kelas VIII-6, 4 siswa dari kelas VIII-7. Untuk penelitian ini, peneliti mengambil sampel menggunakan cara lottre.

Untuk analisis data, peneliti menggunakan rumus Product Moment. Setelah menganalisis data, peneliti menemukan nilai rata-rata dari variabel X adalah 73,60 and nilai rata-rata dari variabel Y adalah 69,77. Selain itu, nilai dari  $r_{xy}$  lebih dari  $r_{tabel}$   $0.737 > 0,423$ . Hasil nya menunjukkan bahwa adanya pengaruh yang signifikan antara kedua variabel. Artinya hipotesis ( $H_a$ ) diterima dan ( $H_o$ ) di tolak. Di simpulkan bahwa adanya hubungan yang signifikan antara kedua variabel dan criteria skor hubungan penguasaan kosakata dan penguasaan berbicara siswa di SMP 5 Padangsidempuan masuk ke dalam kategori yang tinggi.

**Kata Kunci:** Penguasaan kosakata, Penguasaan berbicara



## ACKNOWLEDGEMENT



Firstly, the researcher would like to convey her grateful to Allah SWT. The most Creator and Merciful who has given her the health, time and chance for finishing this thesis: “The Correlation between Vocabulary Mastery and Speaking Mastery at grade VIII students of SMP N 5 Padangsidempuan” This thesis is written in order to fulfill one of the requirements for English Education Department of State Institute for Islamic Studies (IAIN) Padangsidempuan. Hence, this thesis paper has been undertaken.

In writing this thesis, the researcher is assisted by some people and institutions. Therefore, in this opportunity the researcher would like to express her gratitude to the following people:

1. Mr. Dr. Fitriadi Lubis, M.Pd., as my first advisor and Mrs. Fitri Rayani Siregar, M.Hum., as my second advisor who have guided me for finishing this thesis, who have been the great advisors for me and gave me much idea and suggestion sincerely and patiently during the progress of writing this thesis.
2. Mr. Prof. Dr. H. Ibrahim Siregar, M.CL., as the Rector of IAIN Padangsidempuan.



3. Mrs. Dr. Lelya Hilda, M.Si., as the Dean of Tarbiyah and Teacher Training Faculty. Mrs. Fitri Rayani Siregar, M.Hum., as my academic advisor who has given me motivations.
4. All lecturers and all the cavities academic of IAIN Padangsidimpuan, Especially to English lecturers.
5. Headmaster of SMP N 5 Padangsidimpuan who has given me permission to carry out the research.
6. My beloved parents (Abdullah Saleh Siregar and Ummi Kalsum), My beloved sisters (Nur Abni Amd kep. Aprilia, Amelia) and my beloved brothers (Ahmad Syukry) who always give me a lot of love, affection, attention, and big spirit how to be patient and survive in all condition.
7. All of my lovely friends (Kak Amelia Khairani, Desri, Nurhasanah, Khalijah, Netti, Hamidah, Riskeyanti, Suci, Yuni, Nia), All of my friends in IAIN Padangsidimpuan, especially all of TBI 1, TBI 2 and TBI 3, thank you so much for your support all.

May Allah , the almighty bless them all. Aaamiin.

Padangsidimpuan, 18 February 2021

Researcher

**AnryAni**  
**Reg. No. 16 203 00008**

## TABLE OF CONTENTS

<b>TITLE PAGE</b>	
<b>LEGALIZATION OF ADVISOR SHEET</b>	
<b>AGREEMENT ADVISOR SHEET</b>	
<b>DECLARATION OF SELF THESIS COMPLETION</b>	
<b>AGREEMENT PUBLICATION OF FINAL TASK FOR</b>	
<b>ACADEMY CIVITY</b>	
<b>SCHOOLAR MUNAQOSHYAH EXAMINATION</b>	
<b>LEGALIZATION OF DEAN OF TARBIYAH AND TEACHER TRAINING</b>	
<b>FACULTY</b>	
<b>ABSTRACT</b> .....	<b>i</b>
<b>ABSTRAK</b> .....	<b>ii</b>
<b>ACKNOWLEDGMENT</b> .....	<b>iii</b>
<b>TABLE OF CONTENT</b> .....	<b>v</b>
<b>LIST OF TABLES</b> .....	<b>vii</b>
<b>LIST OF FIGURES</b> .....	<b>viii</b>
<b>LIST OF APPENDIXES</b> .....	<b>ix</b>

### CHAPTER I

#### INTRODUCTION

A. Background of the Problem .....	1
B. Identification of the Problem .....	3
C. Limitation of the Problem .....	4
D. Formulation of the Problem .....	4
E. Purposes of the Research .....	5
F. Significances of the Research .....	5
G. Thesis Outline .....	6

### CHAPTER II LITERATURE REVIEW

A. Theoretical Description .....	
1. Vocabulary .....	
a. Definition of Vocabulary .....	7
b. Purpose of Vocabulary .....	8
c. Kinds of Vocabulary .....	9
d. Principle for Teaching Vocabulary .....	10
e. Choosing Vocabulary .....	11
f. Materials of Teaching Vocabulary .....	12
2. Speaking .....	
a. Definition of Speaking .....	14
b. Purpose of Speaking .....	15
c. Principle of Speaking .....	17
d. Kinds of Speaking .....	18
e. Elements of Speaking .....	20
f. Materials of Teaching Speaking .....	23
B. Review of Related Finding .....	25
C. Framework of Thinking .....	27



D. Hypothesis .....	28
<b>CHAPTER III RESEARCH METHOD</b>	
A. Place and Time of the Research .....	29
B. Research Method .....	29
C. Population and Sample .....	30
1. Population .....	30
2. Sample.....	30
D. Definition of Data Variable .....	32
E. Instrument of the Research .....	33
F. Validity and Reliability of the Instrument .....	35
G. Technique of Data Collection .....	37
H. Technique of Data Analysis .....	38
<b>CHAPTER IV RESULT OF THE RESEARCH</b>	
A. The Description of the Data.....	42
B. Testing of Hypothesis .....	47
C. The Discussion of the Result .....	51
D. Limitation of the Research .....	52
<b>CHAPTER V CONCLUSION AND SUGGESTION</b>	
A. Conclusion .....	54
B. Suggestion .....	55
<b>REFERENCES</b>	
<b>APPENDIXES</b>	
<b>CURRICULUM VITAE</b>	

## LIST OF TABLES

	<b>Pages</b>
Table 1. The Population of VIII Grade Students SMP N 5 Padangsidimpuan .....	30
Table 2. Indicators of Vocabulary Mastery.....	33
Table 3. Indicators of Speaking Mastery .....	34
Table 4. Table Interpretation Mean Score.....	38
Table 5 The Criteria Score Interpretation .....	40
Table 6. The Resume of Variable Score of Vocabulary Mastery .....	42
Table 7. The Frequency of Distribution of Vocabulary Mastery.....	42
Table 8. The Resume of Variable Score of Speaking Mastery .....	44
Table 9. The Frequency of Distribution of Speaking Mastery.....	45
Table 10. Normality and Homogeneity data X and data Y.....	43
Table 11. Categories Value Correlation Coefficient and Strength Correlation .....	48



## LIST OF FIGURES

	<b>Pages</b>
Figure 1 : Simple Paradigm .....	26
Figure 2 : The Histogram data of Vocabulary Mastery .....	38
Figure 3 : The Histogram data of Speaking Mastery .....	40

## LIST OF APPENDIX

Appendix 1.	Test of Vocabulary Mastery before Validity.....
Appendix 2.	Answer Keys of Vocabulary Mastery .....
Appendix 3.	Questionnaire Result of Vocabulary Mastery .....
Appendix 4.	Validity of Test.....
Appendix 5.	Table of Pre-test Validity .....
Appendix 6.	Test of Vocabulary Mastery after doing Validity .....
Appendix 7.	Answer Keys of Vocabulary Mastery .....
Appendix 8.	Test of Speaking Mastery.....
Appendix 9.	Questionnaire Result of Vocabulary Mastery .....
Appendix 10.	Questionnaire Result of Speaking Mastery .....
Appendix 11.	The Result of Students Vocabulary Mastery.....
Appendix 12.	The Result of Students Speaking Mastery .....
Appendix 13.	Variable X (Students Vocabulary Mastery) .....
Appendix 14.	Variable Y (Students Speaking Mastery) .....
Appendix 15.	Normality of data X and data Y .....
Appendix 16.	Homogeneity of data X and data Y.....
Appendix 17.	The Result of data X and data Y .....
Appendix 18.	Statistical Analysis of data .....
Appendix 19.	Table Distribusi t.....
Appendix 20.	Table “r” Product Moment.....



## CHAPTER I

### INTRODUCTION

#### A. Background of the Problem

Speaking is one of the important skills in language learning. People should be able to communicate with the others to express their opinion or argument about something and to get or to share information. We speak with others to express our ideas, and to know others ideas as well. Speaking is one of the most important skills in language to communicate orally to express idea besides listening, reading and writing.

Then, speaking can be a powerful vehicle for conveying our feelings and motions for expressing our hopes, illusions, fears, and also speaking will be helpful to build up oral communication among the people from different area. It is absolutely true that to have good communication, the students have to master the speaking.

Besides, all the efforts has done by the goverment to improve the quality of education such as increasing the quality of the curriculum development. School also makes an effort to raise the students ability, the school has prepared equipment to support the students' activities in study. The teacher has an important role in teaching-learning process, begining from managimg the classroom become comfortable, so students can focus in learning English. Then, teacher give task individually or group, tellstories, and give the materials from textbook, until the headmaster provides various of media in

teaching English such as louspeaker and infocus. Thus, the learning is more interesting and fun in the class.

Based on information from the English teacher in SMP N 5 Padangsidimpuan, The condition of speaking mastery in SMP N 5 Padangsidimpuan especially to the VIII grade students still poor. Teacher says most of the students consider that the learning English is very difficult, they are worried about making mistake, students have less confidence and students are lack of English vocabulary.<sup>1</sup>The researcher has seen the situation from the teacher statement, when the teacher are explaining the material, they often speak their bataknese language in the English Class.

There are many factors in speaking mastery. According to Maulaoeddin Afna in his journal, he says “Vocabulary is the important parts in acquiring fluency for speaking skill.”<sup>2</sup>Then, Zhiqin Wang says “There are some factors in speaking such as cognitive factors, linguistic factors and affective factors.”<sup>3</sup> In Hendriati’s Journal there are some factors in speaking, they are listening ability, topical knowledge, feedback during speaking activities and from performance conditions.<sup>4</sup>As general truth, there are many factors in speaking but the researcher only focuses on vocabulary factor. Because

---

<sup>1</sup>Private Interview with Mrs. E As English Teacher in SMP N 5 Padangsidimpuan” on Januari 16th 2020 at 11:00 A.m.

<sup>2</sup>Mauloeddin Afna, “The Correlation between Vocabulary and Speaking Skill,” *Journal of Linguistics, Literature & Language Teaching* IV, no. 1 (2018): 43–71, <http://sinta.ristek.go.id> p.44.

<sup>3</sup>Zhiqin Wang, “Developing Accuracy and Fluency in Spoken English of Chinese EFL Learners,” *English Language Teaching* 7, no. 2 (2014): 110–18, <https://doi.org/10.5539/elt.v7n2> p.110.

<sup>4</sup>Hendriati Afebi, “Factors Affecting Students’ Difficulties in Speaking Performance of the Tenth Grade Students of SMA Negeri 1 Tiworo Kepulauan,” *Journal of English Education and Teaching* 3, no. 1 (2019): 95–105, <http://ejournal.unib.ac.id> p.97.



without vocabulary we can not express our idea and with a limited vocabulary anyone will also have limited understanding in terms of English such as speaking.

Vocabulary refers to the collection of word. Vocabulary is the total number of word. Vocabulary is one of the important aspect of the language, as we know vocabulary also is the basic element in language and it is one of the objective in teaching learning English. Through this element someone can communicate, learn and think.

Vocabulary plays important role in speaking. To master speaking, students have to know many vocabularies because vocabulary can help students for speaking with someone and vocabulary is the first step if students wants to be mastered speaking. Vocabulary also an essential element in a language, because no language exists without vocabulary.

Based on explanation stated above, the researcher was interested in conducting a research entitled “The Correlation Between Vocabulary Mastery and Speaking Mastery at Grade VIII Students of SMP N 5 Padangsidempuan”.

## **B. Identification of the Problem**

Based on background of the problem above, speaking is the ability to report acts, or ability to express a sequence of ideas fluently. Speaking also the important ability that people must be have in learn English language. The function of speaking skill are to express an idea, someone feeling, and it spontaneously by orally.

The factors of speaking are cognitive factors include conceptualization, formulation and articulation, linguistic factors pronunciation, vocabulary grammar, affective factors anxiety, motivation self-restriction, listening ability, topical knowledge, amount of support, feedback during speaking activities and from performance conditions.

### **C. Limitation of the Problem**

Based on the identification above, there are many factors in speaking students they are vocabulary, pronunciation, grammar, anxiety, motivation, self-restriction, listening ability, topical knowledge, amount of support, feedback during speaking activities and from performance conditions.

In this research, the researcher did not discuss all the factors. This research discussed one factor only, that is vocabulary.

The reason why the researcher chooses vocabulary factor because first step to master speaking is by learning vocabulary. By learning vocabularies, students will be able to communicate with the others and to get or to share the information.

### **D. Formulation of the Problem**

Based on the background of the problem, researcher formulates the problem of the research as follows:

1. How is the students' vocabulary mastery at grade VIII students of SMP N 5 Padangsidimpuan?
2. How is the students' speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan?



3. Is there a significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan?

#### **E. Purpose of the Research**

From formulation of problem, the purpose of this research were:

1. To describe the level of vocabulary mastery at grade VIII students of SMP N 5 Padangsidimpuan.
2. To describe the speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan.
3. To find out the correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan.

#### **F. Significances of the Research**

By conducting the research about the correlation between students of vocabulary mastery and their speaking mastery, I hope that the result of the research will be useful to give some contributions to English language and teaching learning:

1. To Head master of the school, as an information to guide English teacher to teach English better.
2. To the English teachers, as a reference to teach English clear and better.
3. To reader and another researchers, as an information to do related topic of the research and for further researchers who are interested in correlational research, they can get basic information from this research. So, they can do their research better than this research.

## **G. Thesis Outline**

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

The first chapter consists of introduction; background of the problems, limitation of the problems, formulation of the problems, purposes of the research, significances of the research, and thesis outline. This research is expected to be useful at least three domains, they are for the head master and for the English teacher and for another researcher.

The second chapter consists of theoretical descriptions; review of related findings, framework of thinking, and hypothesis. In this research, researcher has hypotheses that the significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan.

The third chapter consists of the research method; place and time of the research, research method, population and sample, definition of operational variables, instrument of research, validity and reliability of instrument, and techniques of analysis data.

The fourth chapter consists the result of research; the description data, hypotheses of testing, discussion of result, and limitation of research.

Finally, in the fifth chapter consists of conclusion and suggestion.



## CHAPTER II

### LITERATURE REVIEW

#### A. Theoretical Description

##### 1. Vocabulary

###### a. Definition of Vocabulary

Vocabulary is an essential element of language in teaching English. It is a part of language that so important to all aspects in life. According to Hornby “Vocabulary is all the words that person know or use, the words that people use when they are telling about particular subject.”<sup>5</sup> Then, Jack C. Richard and Willy A Renandya said “Vocabulary is a core component of language proficiency and provides much of the basic for how well learners speak, read, listen and write. It means, words can be noun, verb, adverbs, adjectives, preposition and conjunction to use language.”<sup>6</sup> Then, language is some words or vocabulary for speak, listen, read and write.

According to Ur Penny “Vocabulary is the words we teach in foreign language. It means vocabulary is the list of words that work in language and it is taught by the teacher based on the students’ level.”<sup>7</sup> Then, according to Jackson, “Vocabulary is a representative collection

---

<sup>5</sup>A.S Hornby, *Oxford Advanced Learners’ Dictionary* (New York: Oxford University Press, 1995),p. 1506.

<sup>6</sup>Jack C Richards & Willy A Renandya, *Methodology in Language Teaching and Anthology of Current Practice* (USA: Cambridge University Press, 2000),p. 255.

<sup>7</sup>Penny Ur, *A course in Language Teaching* (United kingdom: University Press, 2000),p. 60.

of the words that exist in the English language.”<sup>8</sup> According to Fitri Rayani’s journal “Vocabulary is the total number of words that are needed in communicate ideas and express the speakers’ meaning.”<sup>9</sup> Vocabulary is the words that are known and use by human. Vocabulary is so important for the students because it is the core part of the language and has the link to each skill in English.

Based on quotation above, it can be concluded that vocabulary is collection of words that are understood and used to communicate in a language.

#### **b. Purpose of Vocabulary**

Purpose of vocabulary is to increase learners’ ability in language and to have knowladge about words and its element. Julie Meltzer and Edmund quote from Alen as follows:

According to Allen, purposeful vocabulary instruction to: 1) increase reading comprehension, 2) develope knowledge of new concepts, 3) improve range and specificity in writing, 4) help students communicate more effectively, and 5) develope deeper understanding of words and concepts with which students are only nominally familiar.<sup>10</sup>

Meanwhile, the purpose of vocabulary in Junior high school institution (MTs/ SMP) there are some purposes for vocabulary student:

- 1) Students are able to memories vocabulary around 250 words.
- 2) Students are able to enrich vocabulary in daily activity

---

<sup>8</sup>Howard Jackson, *Words, Meaning And Vocabulary* (London: Casell, 2000),p. 118.

<sup>9</sup>Fitri Rayani Siregar, “Using the Word Card Technique in Teaching Vocabulary,” *English Education Journal* 4 (2016): 1–13, <http://scholar.google.com> p.3.

<sup>10</sup>Julie Meltzer and Edmund T. Hamman, *Meeting the Literacy Development Needs of Adolescent English language Learning Through content Area Learning* ( The Education Alliacient Brown university, 2005 p.5.



3) Students are able to know the meaning of words.<sup>11</sup>

Based on the explanation above, there are some purposes of vocabulary. They are: students are able to memories vocabulary around 250 words, to enrich vocabulary in daily activity, to know the meaning of words. It can be concluded that teaching vocabulary can develops the students' understanding of words elements.

### c. Kinds of Vocabulary

According to Thornbury in Harmer, there are two kinds of vocabulary, as follows: Receptive vocabulary or passive vocabulary and productive vocabulary or active vocabulary. The further explanation is:

- 1) Receptive Vocabulary or Passive vocabulary  
Receptive vocabulary can be understood only through listening and reading. Someone doesn't need to know much about the receptive vocabulary and it is impossible for someone to memorize all the vocabularies of a certain language but someone can understand the ideas of the utterance contextually not word by word.
- 2) Productive Vocabulary or Active Vocabulary  
Productive vocabulary involves of knowing how to pronounce the word how to write and spell it, how to use it in correct grammatical patterns along with the words that usually collocate with.<sup>12</sup>

According to Haycraft in Mofareh's journal there are two kinds of vocabulary, namely receptive vocabulary and productive vocabulary.

- 1) Receptive Vocabulary  
Receptive vocabulary is words that learners recognize and understand when they are used in context, but which they cannot produce. It is vocabulary that learners recognize when they see or meet in reading text but do not use it in speaking and writing.

---

<sup>11</sup>-, Syllabus of eight grade of junior high school in Curriculum K-13 2019/2020, access on 25<sup>th</sup> August 2020 at 11.00 am

<sup>12</sup>Jeremy Harmer, *The Practical of English language Teaching*( New york; Longman, 2000)p. 158.



## 2) Productive vocabulary

Productive vocabulary is the words that the learners understand and can pronounce correctly and use constructively in speaking and writing. It involves what is needed for receptive vocabulary plus the ability to speak or write at the appropriate time. Therefore, productive vocabulary can be addressed as an active process, because the learners can produce the words to express their thoughts to others.<sup>13</sup>

Based on the quotation above, it can be concluded that receptive vocabulary or passive vocabulary will be easy understand by using listening and reading to remember words or vocabularies, while productive or active vocabulary will be easy to understand by using concentration patterns and grammatical word to get vocabulary. Then, receptive vocabulary refers to the words the students meet in reading text, while productive vocabulary refers to word that the learners understand and can pronounce correctly and use constructively in speaking and writing.

### d. Principles for Teaching Vocabulary

Recognizing what students need in learning is necessary for a teacher. The process of transferring knowledge will not simply succeed if he can not see his students' learning absorbing capability toward the material taught and the teaching portion should be given. According to Nunan, there are several principles for successful in teaching vocabulary as follow:

---

<sup>13</sup>Mofareh Alqahtani, "The Important of Vocabulary in Language Learning And How to Be Taught," *International Journal of Teaching and Education* III, no. 3 (2015): 21–34, <https://doi.org/10.20472/TE.2015.3.3.002>. p.26 access on 23<sup>th</sup> July 2020 at 20.00 pm



- 1) Focus on the useful vocabulary first.
- 2) Focus on the vocabulary in the most appropriate word.
- 3) Give attention to the high frequency words across the four strands of a course.
- 4) Encourage learners to reflect on and take responsibility for learning.<sup>14</sup>

In addition, Michael in Rahmi's thesis says that there are the principles for teaching vocabulary, there are:

- 1) Give most attention to word that are already partly known.
- 2) Tell the learners if it is a high frequency word that they should remember.
- 3) Keep teaching simple and clear. No complicated explanations.
- 4) Relate the present teaching to past knowledge by showing pattern.<sup>15</sup>

Based on the quotations above, there are some principles for teaching vocabulary from many expert. They are: focus on the useful vocabulary first, focus on the vocabulary in the most appropriate word, give attention to the high frequency word across the four strands of a course, encourage learners to reflect on and take responsibility for learning, give most attention to word that are already partly known, tell the learners if it is a high frequency word that they should remember, keep teaching simple and clear, relate the present teaching to past knowledge by showing pattern. These principles can apply in a variation way and variation types of course. In other words, the variation principle in teaching about vocabulary is effective to help the students in learning vocabulary.

---

<sup>14</sup>David Nunan, *Practical English Language Teaching* (Singapore: Mc Graw Hill, 2003) p.135-140.

<sup>15</sup>Rahmi Pu'adi Siregar, "The Effect of Concept Circle Strategy on Students' Vocabulary Mastery at Grade VII MTs N 2 Padangsidempuan" (Iain Padangsidempuan, 2017) p.18.

### e. Choosing Vocabulary

Understanding the nature of vocabulary is important to the process of selecting appropriate instructional strategies that enable students to master the vocabulary they need to learn, to read and to read and learn. Vocabulary consists of function words and content words. The first step in planning for vocabulary instruction is to identify the words students will learn. According to Afaf Abdelrahim there are five suggestions to guide you in this decision-making process are enumerated below, They are:

- 1) Select words that are common and generally useful for students to know.
- 2) Avoid assigning words that students rarely encounter.
- 3) Choose terms that are strategic to academic success and are not typically acquired independently .
- 4) Identify words that are essential for understanding a reading selection
- 5) Pick textbook vocabulary that addresses key concepts or idea.<sup>16</sup>

Based on quotations above, there are some suggestions that teacher should know to teach vocabulary for students. They are: select words that are common and generally for students, Avoid assigning words that students rarely, choose terms that are strategic, identify words that are essential for understanding and pick textbook vocabulary that addresses.

---

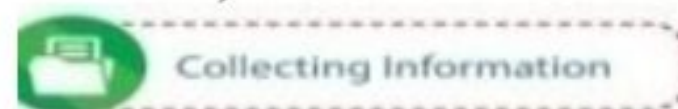
<sup>16</sup>Afaf Abdelrahim and Jalal Eldin, "The Role of Vocabulary Learning Strategies in Enhancing EFL Learners ' Writing Skills" 4, no. 8 (2017): 41–50, <http://dx.doi.org/10.20431/p.42>. access on 11<sup>th</sup> September 2020 at 10.00 am



## f. Materials of Teaching Vocabulary

The material of teaching vocabulary is based on syllabus given by government who has the authority. The topic of the vocabularies does not mention explicitly in the material. The topic does not explain specifically, but the vocabularies include in writing, speaking and reading materials. Here, only discuss the vocabulary that related to the name of animal.

### 1) Words related to the name of animal



We will look closely at the descriptions of the animals. We will use a table to analyze the information about them.

Here are what we will do. We will work in groups. **First**, we will study the examples carefully and copy them in our notebook. **Second**, we will discuss and fill in the table with the information of the animals, like the examples. **Finally**, every one of us will handwrite the analysis in the notebook or type it with a computer.

We will use a dictionary. We will spell the words and use the punctuation marks correctly. We will also say each word loudly, clearly, and correctly. If we have any problems, we will go to our teacher for help.

No	Animal	Habitat	Food	Activity	Characteristics
1	Elephants	Africa and Asia	grass and plants	use their long trunks to put food and water in their mouths	are the heaviest land animals
2	Tigers				
3	Bears				
4	Monkeys				

Here are what they will do, students will work in groups and use a dictionary. First, they will study the examples carefully. Second, students will discuss and fill the table with the information of the animals, like the examples. Finally, every one will handwrite the analysis on the notebook.

## 2) Words related to the name of thing

 Observing & Asking Questions

We will work in groups. We will write about three people in our class. We will tell what they can and cannot do in English, music, sports, housework, and others.

Here are what we will do. **First**, we will study the example carefully. **Second**, we will use the form below to write down what the three people can do and cannot do in the areas. **Third**, we will use the data to write about each of them. We will handwrite it or type it on a computer. **Then**, we will put our works on the wall of the classroom. We will answer questions from people who visit our works.

We will use a dictionary. We will spell the words and use the punctuation marks correctly. While we are writing, we will say the sentences loudly, clearly, and correctly. If we have any problems, we will go to our teacher for help.

No.	Name	Areas / Fields				
		English	Music	Sports	Housework	Others
1.	Wina	- read story - answer questions - not ask question	- play flute - sing English songs - sing folk songs	- swim - run - not basket-ball	- fry eggs - cook rice - fry banana	- knit - draw
2.						
3.						
4.						

Source: English Textbook of SMP N 5 Padangsidimpuan

## 2. Speaking

### a. Definition of Speaking

Speaking is the process of building and sharing meaning through in verbal and symbol of variety in context. David Nunan states



speaking is the productive aural/oral skill. It consists of producing systematic verbal utterances to convey meaning.<sup>17</sup> According to Kathleen “Speaking is an interactive process of constructing meaning that involves producing and receiving and processing information”. It is often spontaneous, open-ended, and evolving, but it is not completely unpredictable.<sup>18</sup> Then, According to Sri Rahmadani’s journal “Speaking is a way of communication are used by speakers to express their ideas, opinions, and feelings to other by using verbal form.”<sup>19</sup> So, speaking is a process that producing and receiving meaning.

Based on Indonesia curriculum of Junior High school in Buku Guru Bahasa Inggris; “*When English Rings a bell*” by Siti Wachidah, speaking has a specific definition. Speaking is one of the students learning activity to make students able communicate interpersonal, transactional, and functional about themselves, family, people, animals and objects concrete and imaginative, which are closest to the life and daily activities of students at home, school and society.<sup>20</sup> Speaking makes students establish verbal communication.

Based on explanation above, it can be concluded definition speaking in junior high school is students can express the meaning of short transactional, interpersonal conversation, and personal in order

---

<sup>17</sup>Nunan, *Practical English Language Teaching* p.48.

<sup>18</sup>Kathleen M.Bailey, *Practical English Language Teaching 1st Edition* (New York: The Mc. Graw-Hill Company, n.d.) p.52.

<sup>19</sup>Sri Rahmadhani Siregar, “Using Direct Method in Teaching Speaking,” *English Education Journal* 4 (2016): 34–47, <http://scholar.google.com> p.36.

<sup>20</sup>Siti Wachidah et al., *When English Rings a Bell* (Jakarta Pusat Kurikulum dan Perbukuan, Balitbang, Kemendikbud, 2018).



to interact with the surrounding oral which simple way that related to animals and daily life.

### **b. Purpose of Speaking**

Purpose of speaking not only for communicate with other but also for producing and receiving meaning. Shaima state some purposes of speaking as follows:

- 1) Personal means that someone want to speak or express personal feeling, opinions, beliefs and ideas.
- 2) Descriptive is describing someone or something, real or imagined.
- 3) Narrative is when people creating and telling stories or chronological sequenced events.
- 4) Instructive. Giving instruction or providing directions designed produce an outcome.
- 5) Questioning. Asking questions to obtain information.
- 6) Comparative. Comparing two or more objects, people, ideas, or opinions to make judgments about them.
- 7) Imaginative. Expressing mental images of people, places or events and objects.
- 8) Predictive. Predicting possible future events.
- 9) Interpretative. Exploring meaning, creating hypothetical deductions and considering influences.
- 10) Persuasive. Changing others' opinions, attitudes, point of view, or influencing the behavior of other in some way.
- 11) Explanatory. Explaining, clarifying, and supporting ideas and opinions.
- 12) Informative. Sharing information with other.<sup>21</sup>

Based on curriculum (K13), there are some purposes of speaking in reviewed from kompetensi dasar in Junior High School, the purposes of speaking are divided into the following description :

- 1) Speaking makes students know a variety different ways in interrupting a conversation for the purposes asking and personal,

---

<sup>21</sup>Shiamaa Abd EL Fattah Torky, "The Effectiveness of a Task- Based Instruction Program in Developing the English Language Speaking Skills of Secondary Stage Students" (2006), <https://www.awej.org>.access on 09<sup>th</sup> August at 12.00 p.m



describe someone or something, question and confirming explanation, changing topic or conversation.

- 2) Speaking makes students able to show attention in the form of appreciation and praise in conversation.
- 3) Speaking makes students able to clarify and confirming to change the conversation topics through listening and speaking.<sup>22</sup>

Based on explanation above, there are some purposes of speaking. Purposes of speaking makes students know and understand how to interrupt conversation in order to ask for an explanation. Speaking also makes students know and understand how to change the topic of conversation listening and speaking activities. Speaking makes students can express the meaning of oral text function to make it simple. This helps to easy the transactional process of communicating to be done by keeping good social relation with others. So, the purpose of speaking is to get information from the speaker. In other words, we can say that speakers do one thing by doing another.

### c. Principles of Speaking

There are some principles in speaking that speaker must applied in teaching speaking. Nunan stated there are five principles that teacher aware in teaching speaking, they are :

- 1) Be aware of the differences between second language and foreign language learning context.
- 2) Give students practices with both fluency and accuracy

---

<sup>22</sup>-, *Kurikulum 2013*, 2013, <http://abbah.yolasite.com> p.68..access on 10<sup>th</sup> August 2020 at 15.00 pm

- 3) Provide opportunities for students to talk by using group work and limiting teacher talk.
- 4) Plan speaking task that involve negotiation for meaning.
- 5) Design classroom activities involve guidance and practice in both transactional and interactional speaking.<sup>23</sup>

In addition, According to Brown's book there are seven principles of speaking, as follow:

- 1) Focus on both fluency and accuracy, depending on objective.
- 2) Provide intrinsically motivating techniques.
- 3) Encourage the use of authentic language in meaningful contexts.
- 4) Provide appropriate feedback and correction.
- 5) Capitalize on the natural link between speaking and listening.
- 6) Give opportunities to initiate oral communication.
- 7) Encourage the development of speaking strategies<sup>24</sup>.

Based on quotations above, there are twelve principles for teaching speaking. They are: be aware of the differences between second language and foreign language learning context, give students practices with both fluency and accuracy, provide opportunities for students to talk by using group work and limiting teacher talk, plan speaking task, design classroom activities involve guidance and practice in both transactional interactional speaking, focus on both fluency, accuracy, provide intrinsically motivating, encourage the use of authentic language, provide feedback and correction, capitalize on the natural link, give opportunities to communicate, encourage the development of speaking. So, the teacher can follow the principles to make students more active in teaching learning process. Teacher also make teaching learning process more interest.

---

<sup>23</sup>Nunan, *Practical English Language Teaching*.p.54-56

<sup>24</sup>H Douglas Brown, *Teaching by Principles an Interactive Approach to Language Pedagogy*, 2007 p.331.



#### d. Kinds of Speaking

There are some kinds of speaking that we teach for communication with other. According to Douglas Brown, there are types of spoken language:

- 1) Imitative. A very limited portion of classroom speaking time may legitimately be spent generating “human tape recorder” speech, for example, learners practice an intonation contour or try to pinpoint a certain vowel sound. Imitation of this kind is carried out not for the purpose of meaningful interaction, but for focusing on some particular element of language from.
- 2) Intensive. Intensive speaking goes one step beyond imitative to include any speaking performance that is designed to practice some phonological or grammatical aspect of language. Intensive speaking can be self-initiated, or it can even form part of some pair work activity, where learners are “going over” certain forms of language.
- 3) Responsive. A good deal of student speech in the classroom is responsive: short replies are usually sufficient and do not extend into dialogues. Such speech can be meaningful and authentic.
- 4) Transactional (dialogue). Transactional language, carried out for the purpose of conveying or exchanging specific information, is an extended form of responsive language. Conversation for example: may have more of a negotiation nature to them than does responsive speech.
- 5) Interpersonal (dialogue). Interpersonal dialogue carried out more the purpose of maintaining social relationship than for the transmission of facts and information. This conversation is little trickier for learners because they can involve some or all of the following factors: casual register, colloquial language, emotionally charged language, slang, ellipsis, sarcasm and a covert “agenda”.
- 6) Extensive (monologue). Students at intermediate to advanced levels are called on to give extended monologues in the form of oral reports, summaries or perhaps short speeches. Here the register is more formal and deliberative. Then monologues can be planned or impromptu.<sup>25</sup>

---

<sup>25</sup>Brown p.327-330.



In addition, according to Browns' book there are two types of oral language, as follow:

1) Monologue

Brown states that "Monologue is when one speaker uses spoken language for any length of time, as in speeches, lectures, readings, news broadcast, and the like, the hearer must process long stretches of speech without interruption the stream of speech will go on whether or not the hearer comprehends what speaker means".<sup>26</sup>

2) Dialogue

It is different with monologue. "Dialogue is the speaking that involves two or more speakers. The interruption may happen in the speech when the interlocutor does not comprehend what the speaker say. The dialogue consist of two types, they are: social relationship (interpersonal), and factual information (transactional)".<sup>27</sup>

Based on explanation about kinds of speaking above, both of expert's opinion are good. The most suitable that is based on Brown's opinion that are monologue and dialogue. Studying speaking students have effort to explain their idea even need long time or short time. Monologue process also can be as an alternative for students to mastery speaking by doing such as : retelling story, combine stories, telling opinion, presentation and speech. Where as studying dialogue, students communicate not only for one way but also there is a part to talk. For example: conversation and discussion.

---

<sup>26</sup>Brown p.303.

<sup>27</sup>Brown p.303.



### e. Elements of Speaking

According to Harris, there are some elements of speaking. It is defined into five: pronunciation, grammar, fluency, vocabulary, and comprehension.<sup>28</sup> The further explanation is explained as follows:

#### 1) Pronunciation

Pronunciation refers to the way how we make the sound of words. According to Lynda Yates and Zielinski "Pronunciation is how we produce the sound that we use to make meaning when we speak."<sup>29</sup> People's pronunciation is influenced by some aspects as the place where we live, our mother language or education. So, pronunciation has a key role in learning English.

#### 2) Vocabulary

Vocabulary is the most important when we learn about foreign language specially in speaking. Nunan states "Vocabulary is more than a list of target language words."<sup>30</sup> A spoken word is a sound or sequence of sounds, which communicate those "ideas" precisely, a speaker should express them with precise words rather than general words. In addition, vocabulary refers to the student's achievement to build up the words using some related vocabularies.

---

<sup>28</sup>David P Harris, *Testing English as a Second Language* (New York: McGraw Hill book company, 1996) p.81.

<sup>29</sup>Lynda Yates and Beth Zielinski, *Give It a Go: Teaching Pronunciation to Adults* (Australia: AMEP Research Centre on behalf of the Department of Immigration and Citizenship Macquarie University Sydney, 2009) p.11.

<sup>30</sup>Nunan, *Practical English Language Teaching* p.258.

### 3) Fluency

Fluency refers to how well a learner communicate meaning rather than how many mistakes that they make According to Richard “Fluency is the features which give speech the qualities of being natural and normal, including native-like use pausing, rhythm, intonation, stress, rate of speaking,”<sup>31</sup> So, fluency is the ability to speak a foreign language easily and accurately.

### 4) Grammar

Grammar has effect to students confidents in speaking. According to Jack C. Richard “Grammar is description of the sructure of language and the way in which linguistic units are combined to produce sentence in the language.”<sup>32</sup> Sometime students want to speak but afraid about their grammar will be wrong while speaking. So, they choose to still silent and safe their opinion because they lack in grammar.

### 5) Comprehension

Comprehension denotes the ability of understanding the speaker’s intention and general meaning.Hormby states, “Comprehension is the mind’s act and power of understanding.”<sup>33</sup> When there is communication between people and the listener can

---

<sup>31</sup>Jack Richards and Richard W Schmidt, *Longman Dictionary of Language Teaching and Applied Longuistics*, Fourth edi (UK: Person education, 2010) P.222.

<sup>32</sup>Richards and Schmidt P.251.

<sup>33</sup>A S Hormby, *Oxford Learners’ Pocket Dictionary*, Fourth Edi (New york: Oxford University, 2008) p.86.



understand, answer or express well and correctly, it shows comprehend in their communication.

Based on English book “When English Rings A Bell” there are some elements of speaking in Junior high school at grade VIII and the assesment of speaking are divided into : Pengucapan (Pronunciation), Intonasi (Intonation), Kelancaran (Fluency) and Ketelitian (Accuracy).<sup>34</sup>

From these explanation above, there are some components of speaking that must be paid attention by students if they want to speak well. They are accent, grammar, fluency, vocabulary and comprehension. The teacher can follow the elements to students speaking ability in the class.

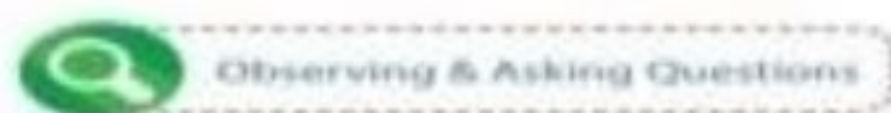
#### **f. Materials of Teaching Speaking**

There are three ways of communication applied in implementation of 2013 curriculum, they are : student – teacher, teacher – student and student – student. Here, students should be able to observe, asking question, think out, experiment and communicate by doing discussion with their group. In this research, the material only focus on chapter with sub topic My Uncle is a Zookeeper.

The example of speaking material about animals :

---

<sup>34</sup>Wachidah et al., *When English Rings a Bell*.



We have a study tour in a zoo.  
What animals do you see in the picture?



86 KELAS VIII SMP/ MTs

Source: English Textbook of SMP N 5 Padangsidimpuan

Here are what they will do, students will learn to describe the animals in a zoo one by one. First, students will listen and repeat each description at the teacher, sentence by sentence. Second, in the group students will discuss to identify different pieces of information about each animals. Finally, students will say word loudly, clearly and correctly.





We will learn to describe the animals in the zoo, one by one.


Here are what we will do. **First**, we will listen and repeat each description after the teacher, sentence by sentence. **Second**, in the group we will discuss to identify different pieces of information about each animal and put them into the table. **Finally**, we will handwrite the analyses in our notebooks.

We will use a dictionary. We will spell the words and use the punctuation marks correctly. We will also say each word loudly, clearly, and correctly. If we have any problems, we will go to our teacher for help.


We will tell what the zoo keepers do as their routines.

Here are what we will do. **First**, we will listen and repeat after the teacher, sentence by sentence. **Second**, in the group we will learn to tell, not read, the zoo keepers' routine jobs. **Finally**, we will do it in front of the class.

We will say the sentences loudly, clearly, and correctly.



He feeds the animals every day.



She prepares foods and drinks for the animals every morning.

Bahasa Inggris / When English Rings a Bell 87

Bahasa Inggris / When English Rings a Bell 91

Source: English Textbook of SMP N 5 Padangsidimpuan

## B. Review of Related Finding

There were several researchers which have done the some research that related to this research, as follows:

Talita Fitri Ashari found there is a correlation between mastering vocabulary and speaking skills of second grade students of junior high school in Pakal Surabaya. This can be proved from the result of the product moment correlation that the value of  $r_{xy} = 0,72$  is greater than the significance, either at the level; of 1% or 5%.<sup>35</sup>

Putri Aulia and Refnaldi they found that there is a correlation between vocabulary mastery and speaking ability at grade 8 of Junior High School. They were proved by the mean score 65 for vocabulary mastery and 68 for speaking ability. Moreover, there was strong correlation between students' vocabulary mastery and speaking ability. It was shown by the  $r_{value} = 0,703$  was higher than  $r_{table} = 0,361$ .<sup>36</sup>

Yuz Fernandez Uzer showed that the coefficient correlation of them was 0.630, respectively with the significance level 5% was 0.320. In other words the alternative hypothesis ( $H_0$ ) was rejected.<sup>37</sup>

Nina Aristi and Atni Prawati found that there was positive correlation between vocabulary mastery and speaking skill by second years students of SMP N 12 Bintan. The value of  $r$  table with the level

---

<sup>35</sup>Talita Fitri Ashari, "The Correlation between Students' Vocabularies Mastery and Speaking Skill at SMP AL-Azhar Surabaya," *Journal of Applied Linguistics and Islamic Education* 03, no. 1 (2019): 201–30, <http://google.scholar.co.id> p.227.

<sup>36</sup>Aulia Putri and Refnaldi, "The Correlation between Students' Vocabulary Mastery and Speaking Ability at Grade 8 Of Junior High School," *Journal of English Language Teaching* 9, no. 1 (2020): 1–100, <http://google.scholar.co.id>.

<sup>37</sup>Yus Vernandez Uzer, "The Correlation between Vocabulary Mastery and English Speaking Ability of the Tenth Grade Students of Senior High School 12 Palembang" (Universitas PGRI Palembang, 2017), <http://www.journal.unrika.ac.id>.258.



significance 5%= 0.361 and 1%= 0.463 the value of  $r_{xy}$  was 0.68. The  $H_0$  hypothesis was rejected and the  $H_a$  was accepted.<sup>38</sup>

Taslim and Andi Asrifan also found the result of data analysis showed that there was a significant positive correlation between student's mastery vocabulary and their speaking skill it can be seen by  $r_{value}$  was higher than the  $r_{table}$ . it showed that the student's mastery vocabulary (variable X) gave about 75.33% contribution to the speaking (variable Y) of the sample class 25.66% was influenced by other aspects.<sup>39</sup>

Based on review of related finding above, the researcher also do this research with different place, time and instrument.

### C. Framework of Thinking

Vocabulary is collection of words that person know or use in language. Vocabulary is the basic that must be learnt first by the learners. It is impossible to learn English without vocabulary. Moreover, the first lesson of human language is words.

Speaking is how the students give expression in oral which simple way. Definition speaking in Junior High School speaking is students can express the meaning of short transactional, interpersonal and personal in oral which simple way.

---

<sup>38</sup> Atni Pratiwi Nina Aristi, "The Correlation between Vocabulary Mastery and Speaking Ability in Describing People By Second Year Students of SMP N 12 Bintan," *Jurnal Online Mahasiswa* 4, no. 2 (2017): 1–9, <http://www.neliti.com> p.7.

<sup>39</sup> Andi Asrifan Taslim, "The Correlation between Students Vocabulary Mastery and Speaking Skill," *Journal of Advanced English Studies* 2, no. 2 (2019): 65–76, <http://sastra.unifa.ac.id> p.75.

Vocabulary plays an important role in speaking. To master speaking, students have to know many vocabularies because vocabulary can help students for speak with someone. By vocabulary, students able to communicate with the others clearly, to help students to know what people say. and to help students share their idea.

Based on assumption above, it can be assumpt that there was correlation between vocabulary mastery and speaking mastery.

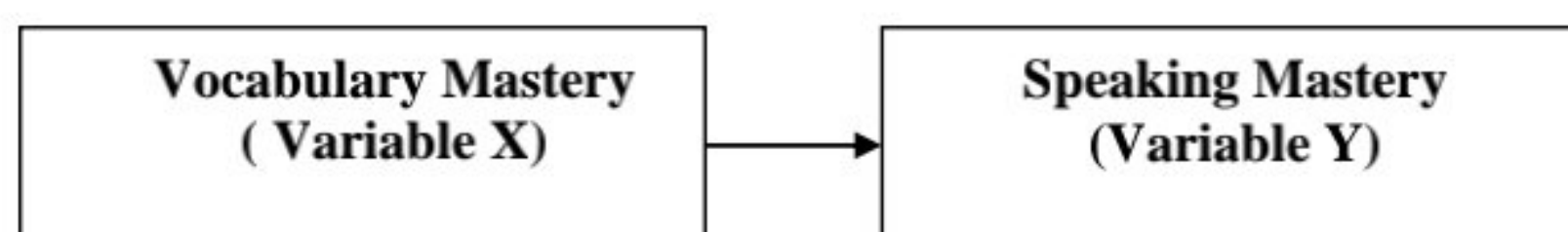


Figure 1 The Correlation Between Vocabulary Mastery and Speaking Mastery

#### D. Hypothesis

According to Suharsimi Arikunto, "Hypothesis is a provisional answer of result problem in research."<sup>40</sup> So, it can be concluded the hypothesis is a tentative answer or prediction for the result of the research that we so.

Based on above explanation, the hypothesis of this research are:

1. There is a significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan.
2. There is no significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan.

---

<sup>40</sup>Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik* (Jakarta: Rineka Cipta, 2006) p.172.



## CHAPTER III

### RESEARCH METHOD

#### A. Place and time of the Research

This research was conducted at SMP N 5 Padangsidimpuan. It is located at Jl. Perintis Kemerdekaan, Padangsidimpuan No. 61, 22731, Padangmatinggi, Kec. Padangsidimpuan Selatan, Kota Padangsidimpuan North Sumatera. The location is 3,8 km from the city center to the south, it takes about 10 minutes by public transportation. The process of the research was from Januari 2020 until December 2020.

#### B. Research Method

The type of this research was quantitative research. L. R. Gay said that quantitative research is based on the collections and analysis of numerical data. Usually it obtains from questionnaires, tests, checklist and other formal paper and pencil instruments.<sup>41</sup> While, correlation research is attempted to determine whether and to what degree the correlation exist between two or more variables.<sup>42</sup> At correlation research, the data will be collected and analyzed by used statistical analysis to get the real result.

From the quotation above, it can be concluded that the correlation quantitative is a kind of descriptive method. Descriptive method is describe and interpret things, such as the condition or relationship. “Descriptive method is a form of research to describe the phenomena that

---

<sup>41</sup>L. R. Gay and Petteer Airaisan, *Educational Research for Analysis and Application* (America: Prentice Hall, 1992) p.8.

<sup>42</sup>Airaisan p.12.

happened like natural phenomena or fictive phenomena.<sup>43</sup> So, this method was used to describe the correlation between Vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan.

### C. Population and Sample

#### 1. Population

The population of this research was the grade VIII students of SMPN 5 Padangsidimpuan. The population number is shown in the table below:

**Table 1**  
**The Population of VIII Grade Students of SMP N 5 Padangsidimpuan**

<b>NO</b>	<b>Class</b>	<b>Total</b>
1	VIII-1	26 Students
2	VIII-2	26 Students
3	VIII-3	27 Students
4	VIII-4	26 Students
5	VIII-5	28 Students
6	VIII-6	27 Students
7	VIII-7	29 Students
<b>TOTAL</b>		<b>189 Students</b>

Source: School Data Administration of SMP N 5 Padangsidimpuan

#### 2. Sample

Sample is the small group that is observed. It was selected from a larger group which consist of the individuals, items or events and referred to as a population. A sample is a portion of

---

<sup>43</sup>Sanapiah Faisal dan Mulyadi Guntur, *Metode Penelitian Dan Pendidikan* (Surabaya: Usaha Nasional, 1982) p.119.



population.<sup>44</sup>L. R. Gay and Airaisan figures sample is a number of individuals for a study in such a way that they represent the larger group from who they were selected.<sup>45</sup>It means that sample is a part of the population that used as the respondent of a research. For this research, researcher used lottery technique to take the sample. Where the name of all the students was written on a small paper. Then, the small paper put into the small box and shake it as much as needed.

The formula for calculating the sample size of a known population was used Slovin's formula :

$$n = \frac{N}{1+Ne^2}$$

n = sample size

N = population

e = significant error (5% and 20%)<sup>46</sup>

Based on formula above reseacher used 20% limit of error tolerance and the sample can be decide as follows:

$$n = \frac{189}{1+189 \cdot 0,2^2}$$

$$n = \frac{189}{1+189 \cdot 0,04}$$

$$n = \frac{189}{8,56}$$

$$n = 22$$

---

<sup>44</sup>Asghar Razavieh Ary, Donald, Lucy Cheeser Jacobs, Chris Sorensen, *Introduction to Research in Education* (Canada: Wadsworth Cengage Learning, 2010) p.148.

<sup>45</sup>Airaisan, *Educational Research for Analysis and Application* p.121.

<sup>46</sup>Husein Umar, *Metode Riset Bisnis* (Jakarta: PT Gramedia Pustaka Utama, 2003) p.141-142. p. 141-142

From the calculation above, it can be concluded that the total of sample in this research was 22 students. They are from VIII-1 until VIII-7. 5 students were from VIII-1, 3 students were from VIII-2, 3 students were from VIII-3, 2 students were from VIII-4, 2 students were from VIII-5, 3 students were from VIII-6, and 4 students were from VIII-7. In this research, researcher used random sampling in taking the sample. The researcher's reason using random sampling technique was because of homogen. All of the sample has the same opportunities to choose, they have similar competence in English, no placement test, have same lessons and appropriated with the information that reseacher get from teacher.

#### **D. Definition of the Operational Variable**

Based on the title of this research, this research was consisted of two variables, so that the definitions of variables as follow:

1. Vocabulary Mastery (Variable X)

VocabularyMastery is a collection of words that are understood and used to comunicate in a language. Vocabulary mastery is considered to be important.The vocabularies of this research is about animal.

2. Speaking Mastery (Variable Y)

Speaking Mastery is students can express the meaning of short transactional, interpersonal and personal conversation in order to interact with the surronding in oral which simple way. In this research, just focus on describeabout animals.



## E. Instrument of the Research

Instrument is the important thing in a research. Suharsimi said that “Instrument is a tool to help the researcher in collecting the data easier and systematically.”<sup>47</sup> The quality of the instrument will establish the quality of the data. The instruments of this research to collect the data was test. The instruments will be explained below:

### 1. Vocabulary Test

For the vocabulary test, this research used the multiple choice test consisting of 100 item in order to facilitate the students to answer the test. which form of multiple choice is with four options A, B, C and D. To find out the scores of the students answer, the researcher gives 1 score from each item. So, the maximum of test was 100.

**Table 2**  
**Indicators of Vocabulary Mastery**

No	Indicator	Topic	Number of Items	Total Items	Total Scores
1	Able to identifying the meaning of word	Name of Animals	4,5,9,11,12,14,20,31,52,69,76,81,87,88,99	15	15
		Food of animals	6,16,17,19,35,45,48,54,55,56,82,92,93,94,96	14	14
		Characteristic of the animal	7,10,39,41,46,51,59,56,60,61,74,79,86	13	13
2	Able to remembering the word	Name of Animals	1,3,8,27,29,33,37,38,43,44,47,62,65,66,67,68,70,71,72,77,78,84,97	23	23

<sup>47</sup>Suharsimi Arikunto, *Prosedur Penelitian* (Jakarta: Rineka Cipta, 2002) p.134.

	Food of animals	2,13,22,24,30,36,40, 49,53,57,63,64,73,8 3,91,97,95,98,100	19	19
	Characteristic of the animal	15,18,21,23,25,26,2 8,32,33,34,43,50,75, 80,85,89,90	16	16
	<b>TOTAL</b>			100

## 2. Speaking Test

In this research, the researcher used monologue speaking to do the test. Brown defined a test best a method of measuring a person's ability: knowledge or performance in a given domain.<sup>48</sup>

The use of oral test is to improve students speaking, measuring students abilities in speaking. Arthur Hughes formulates that there are five elements should be measured in speaking test, namely; accent, grammar, vocabulary, fluency and comprehension.<sup>49</sup> Those all indicators of speaking are correct, but researcher limited the indicators in scoring the test only on students need based on the purpose and definition speaking in junior high school, based on teacher's book in PERMENDIKBUD K13 version. The indicators of speaking test can be seen in the table below:

<sup>48</sup>H. Douglas Brown, *Language Assessment Principle and Classroom Practice* (San Francisco: Longman, 2004) p.3.

<sup>49</sup>Arthur Hughes, *Testing for Language Teachers* (USA: Cambridge University Press, 1990) p.111.



**Table 3**  
**Indicators of Speaking Mastery**

No	Aspect	Criteria	Score
1	Pronunciations	Almost Perfect	5
		There are some mistake but do not interfere the meaning	4
		There are some mistakes and interfere the meaning	3
		Many mistakes and interfere the meaning	2
		Too much mistakes and interfere the meaning	1
2	Intonation	Almost perfect	5
		There are some mistakes but do not interfere the meaning	4
		There are some mistakes and interfere the meaning	3
		Many mistakes and interfere the meaning	2
		Too much mistakes and interfere the meaning	1
3	Fluency	Very good	5
		Good	4
		Enough	3
		Not so bad	2
		Bad	1
4	Accuracy	Very good	5
		Good	4
		Enough	3
		Not so bad	2
		Bad	1
S	Score $N/20 \times 100 = 100$		

Source: Teacher's English Textbook of SMP N 5 Padangsidempuan

#### **F. Validity and Reliability of the Instruments**

Validity and realibility are the important thing toward the research.

In this research, there were two instrument that had been identified the validity and reliability, as follow:

## 1. Validity

Validity is a tool that used to measure the test. AnasSudijonostate “Validity is a characteristic of the good test”. To get the validity of an achievement, two ways can be used :

- a) Totality of the test validity
- b) Item validity<sup>50</sup>

In this research, researcher had used item validity to find out the validity of instrument. Item Validity is a part of the test as a totality to measure the test by item. Based on the 125 questions, the 107 question was valid. The questionnaires were not valid was 18 questions they wasnumber : 14, 18, 23,26, 35, 40, 44, 47, 48, 58, 68, 74, 75, 79, 86, 114, 115, and number 118.

To know the validity of the each question, this research refered to list  $r$  biserial with  $r$ . If  $r_{count} > r_{table}$  the test is classify valid. So, to get the validity test, the researcher used the formula of  $r$  pointbiserial as follow :

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

Where

- $r_{pbi}$  : Coefficient item validity
- $M_p$  : Mean Score of the total score
- $SD_t$  : Standart deviation of the total score
- $P$  : Presentation of the right answer of the item test validity
- $q$  : Presentation of the wrong answer of the item test validity<sup>51</sup>

## 2. Reliability

---

<sup>50</sup>Anas Sudijono, *Pengantar Evaluasi Pendidikan* (Jakarta: PT Raja Grafindo Persada, 1996) p.163.

<sup>51</sup>Anas Sudijono p.166.



An instrument of the research must be reliable. Reliability is the degree of consistency of a measure. A test will be reliable when it gives the same repeated result under the same condition. The formula of reliability test used by Spearman Brown, is:

$$r_i = \frac{2rb}{1+rb}$$

Where :

$r_i$  = internal reliability of all instrument

$rb$  = correlation product moment between the first and second hemispheres.<sup>52</sup>

### G. Techniques of Data Collection

Collecting data in this research is through testing. Multiple choice test was performed to get the data about the students' vocabulary mastery and speaking mastery to get the degree or not. The process was explained as follows:

- 1) The researcher entered to the each of classroom for doing research.
- 2) The researcher introduce self, explain the aim, and asked permission to the sample.
- 3) The researcher give the test to the students.
- 4) The researcher give 45 minute for answering test.
- 5) The researcher controlled the class while students were answering the test.
- 6) The researcher collected all of the instrument.
- 7) The researcher brought it to home and analyzed the data.

---

<sup>52</sup>Sugiyono, *Metode Penelitian Kuantitatif Dan Kualitatif Dan R&D* (Bandung: Alfabeta, 2008) p.121.

## H. Techniques of Data Analysis

After the processed of data collection, the researcher analyzed the data by using quantitative data. In quantitative research the most suitable analysis was using the statistical process and following steps :

- 1) Identified and corrected the answer the subject research from the tests.
- 2) Identified mean, median and modus by using descriptive statistic. It is the second ways of presenting the data analysis. According to Anas Sudijono, the three formulas above had been explained bellow<sup>53</sup> :

- a) Know the mean (average) score used the formula :

$$M(x) = \frac{\sum fx}{N}$$

- b) Know the median score used the formula :

$$Me = \ell + \left( \frac{\frac{1}{2}n - fkb}{fi} \right) xi$$

- c) Know the modus score used the formula :

$$Mo = \ell + \left( \frac{fa}{fa+fb} \right) xi \text{ atau } M_0 = U - \left( \frac{fb}{fa+fb} \right) xi^{54}$$

**Table 4**  
**Interpretation of Mean Score**

No	Interval	Predicate
1	80-100	Very Good
2	70-79	Good
3	60-69	Enough
4	50-59	Less
5	0-49	Fail

- 3) Identified the normality test

<sup>53</sup>Sugiyono p.81.

<sup>54</sup>Sugiyono p.82.



Normality test is used to know whether the data of research is normal or not. To know the normality, the researcher use *Chi-Square* formula. The formula is as follow:

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

**Where:**

$X^2$  = Value of Chi-Square

$F_o$  = Observed Frequency

$F_e$  = Expected Frequency<sup>55</sup>

To calculate the result of *Chi-Quadrate*, it was used 5% significant level. If result  $x^2_{count} < x^2_{table}$ , it can be concluded that data is distributed normal.

4) To test Hypothesis

To know the correlation between variable X and Y was calculated by applying product moment formula. it has been refer to list r product moment with 5% significant level. The hypothesis was accepted If  $r_{count} > r_{table}$ . The formula of Product Moment explained below:

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

**Where :**

$r_{xy}$  = Coefficient Correlation between variable X and Y

$\sum X$  = The sum scores of variable X

---

<sup>55</sup>Ahmad Nizar Ranguti, *Statistik Untuk Penelitian Pendidikan* (Medan: Perdana Publishing, 2015) p.74.

$\Sigma Y$  = The sum scores of variable Y

$\Sigma XY$  = Product X dan Y

N = Total of sample.<sup>56</sup>

- 5) Find the amount of contribution variable X and Y it can be definite the formula determinant correlation :

$$KD = r^2 \times 100\%$$

Description ;

KD = coefficient of determination

r = the correlation value obtained<sup>57</sup>

- 6) Then, testing the truth of significant correlation, used the formula  $t_{\text{count}}$  with the formula

$$T_{\text{count}} = r \frac{\sqrt{n-2}}{\sqrt{1-r^2}}$$

Description ;

t = the canculated t test value

r = correlation coefficient

$r^2$  = coefficient of determination

n = the total sample<sup>58</sup>

The result should been appropriated with interpretation to the index of product moment of correlation. The interpretation of the result could be seen in the following table:

---

<sup>56</sup>Anas Sudjiono, *Pengantar Statistik Pendidikan* (Jakarta: Pt Raja Grafindo, 2005) p.193.

<sup>57</sup>Ahmad Nizar Rangkuti, *Statistik Untuk Penelitian Pendidikan* p.102.

<sup>58</sup>Ahmad Nizar Rangkuti p.103.



**Table 5**  
**The Criteria Score Interpretation**

<b>Interval correlation</b>	<b>Degree correlation</b>
Between 0,00-0,19	Very low
Between 0,20-0,399	Low
Between 0,40-0,599	Midle
Between 0,60-0,799	High
Between 0,80-1,000	Very High

Source: Anas Sudjiono in book Pengantar Statistik Pendidikan

## CHAPTER IV

### RESULT OF THE RESEARCH

In this chapter, this research discussed the result of testing, in order to evaluate the correlation between vocabulary mastery and speaking mastery at grade VIII Students of SMP N 5 Padangsidimpuan. The researcher has calculated the data by using descriptive method. Applying the quantitative analysis, this reseach used the formulation “r” Product Moment. Then the researcher described the data as follow:

#### A. The Description of the Data

To facilitate understanding of the result of this study, the data described by sequence of variables. Description of research result started from variable (X) was Vocabulary Mastery, and variable (Y) was Speaking Mastery.

##### 1. Vocabulary Mastery

In this part, this research showed the result of the research that has been done to the dependent variable that is Vocabulary Mastery. In this research, the researcher present 100 item question of multiple choice. For each number get 1 score if the answer was true.

After calculating then scores , it was found that the highest score was 84 and the lowest score was 65 (see appendix 13 : Variable X Vocabulary mastery). To complete this research, it was needed for the researcher to calculate the mean score was 73,60 the median score was 73,5 and the mode was 73,82. Where mean was the score which represent the general value that was achieved by the students.



Meanwhile, median was the score in the middle of the score which divides a distribution of data into two equal part and mode is a score which has the most frequency. So, the specification calculation was described in the table below:

**Table 6**  
**The Resume of Variable Score of Vocabulary Mastery**

<b>NO</b>	<b>Statistics</b>	<b>Variable X</b>
1	High Scores	84
2	Low Score	65
3	Range	19
4	Interval	4
5	Mean Score	73,60
6	Median Score	73,5
7	Mode	73,82
8	Standart Deviation	17,88

Table 5 presented the conclusions of the result from students' answer. It shows that mean is 73,60 it means that the students in vocabulary mastery was in good predicate. To know revelation of data was done to group the variable score of vocabulary mastery which the total classes 5 and interval 4.

Then, the computed of the frequency distribution of the students's score of group can be appied in to table frequency distribution as follow:

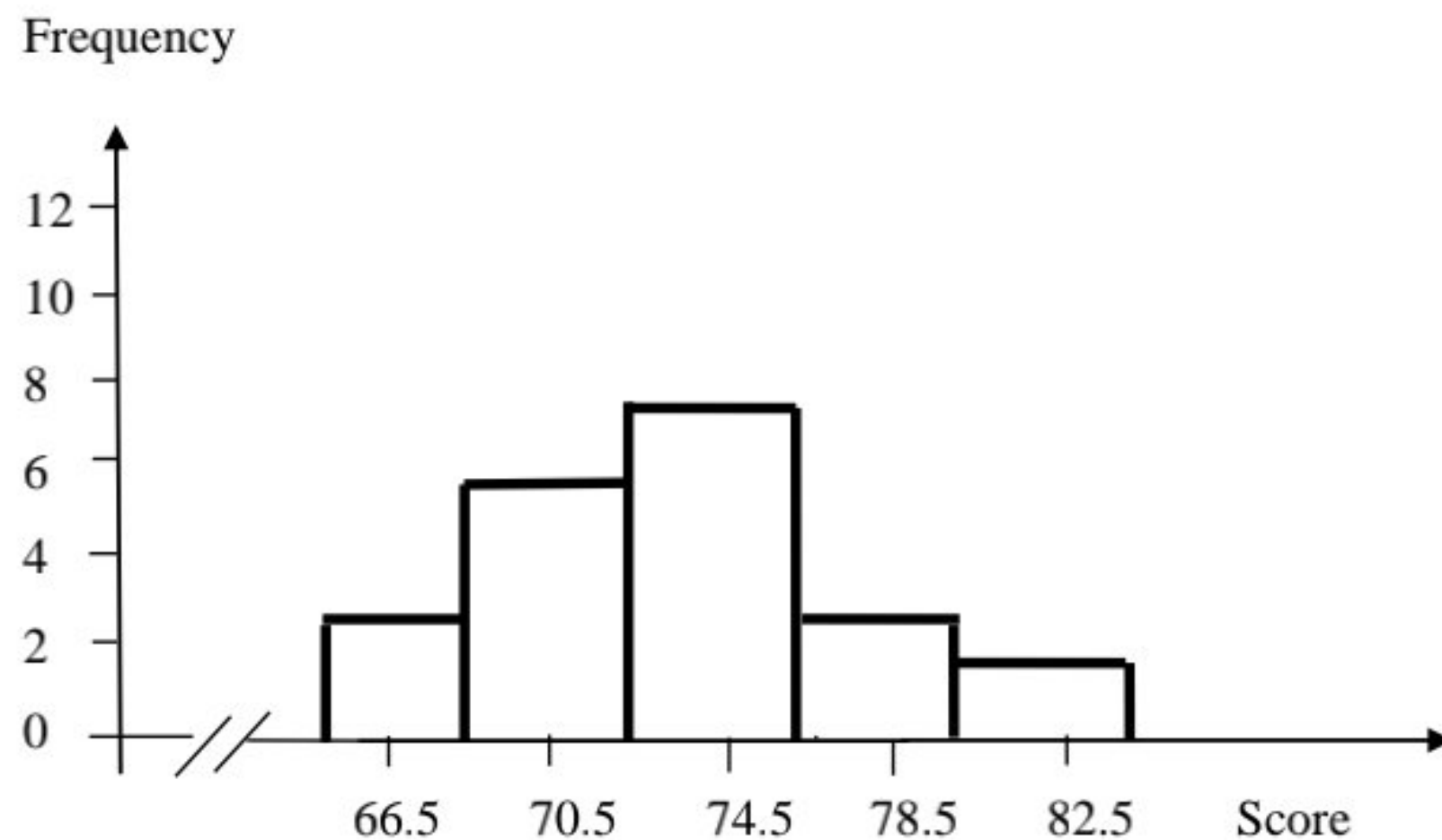
**Table 7**  
**The Frequency Distribution of Vocabulary Mastery**

<b>Interval</b>	<b>Mid Point</b>	<b>Frequency</b>	<b>Percentage</b>
65 – 68	66,5	3	13.63%

69 – 72	70,5	6	27.28%
73 – 76	74,5	8	<b>36.37%</b>
77 – 80	78,5	3	13.63 %
81 – 84	82,5	2	9.09%
<b>Total</b>		22	100%

Based on the table above, it was known that the variable revelation of vocabulary mastery shown that the respondent an interval 65-68 were 3 student (13.63 %), interval 69-72 were 6 students (27.28%), interval 73-76 were 8 students (36.37%), interval 77-80 were 3 students (13.63%) and last interval 81-84 were 2 students (9.09%).

In order to get a description of the data clearly and completely, the researcher presents them in histogram on the following figure:



**Figure 1:**  
**The Histogram of Vocabulary Mastery at grade VIII**  
**Students of SMP N 5 Padangsidimpuan**



By looking the above histogram, it can be said that the curve was normal. The degree of students' (respondent) in agreement of vocabulary mastery were the highest at the middle position.

## 2. Speaking Mastery

The resume score of variable speaking mastery at grade VIII students' of SMP N 5 Padangsidimpun has been gotten as table below:

**Table 8**  
**The Resume of the Variable Score of Speaking Mastery**

No	Statistic	Variable Y
1	High Score	80
2	Low score	60
3	Range	20
4	Interval	4
5	Mean score	69.77
6	Median score	70
7	Mode	71.5
8	Standart deviation	22,62

From the above table, the researcher got high score was 80, low score was 60, mean score was 69.77, median score was 70, mode score was 71.5. The data could be seen in the appendix 14 (variable Y : Speaking mastery)

Based on the calculating of mean score, it was 69.77 it means that the students' speaking mastery was enough predicate. To know the revelation of data was done to group the variable score of speaking mastery which the total classes 5 and interval 4. Then, the computed

of the frequency distribution of the students' score of group can be applied in to table frequency distribution as follows:

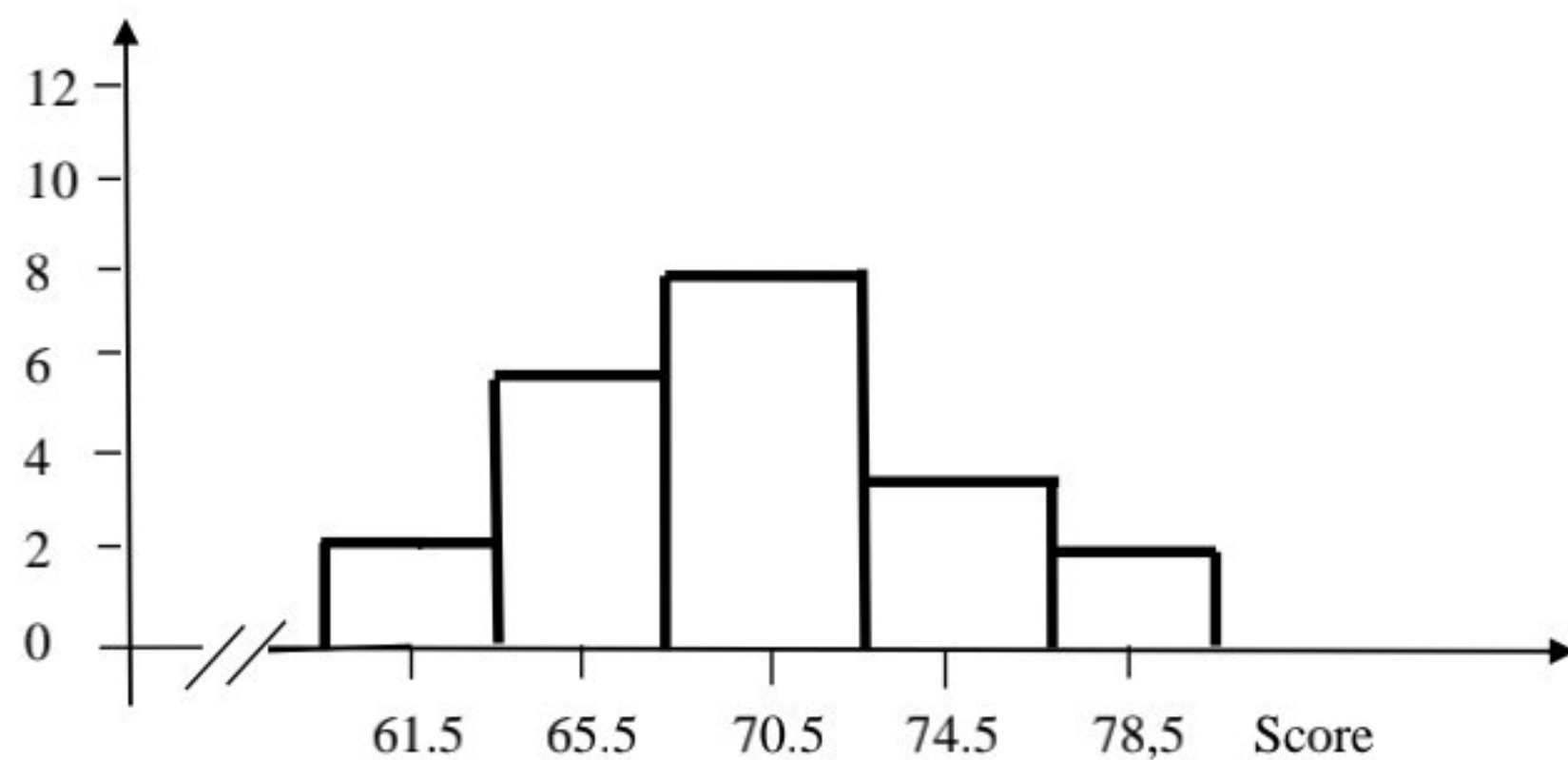
**Table 9**  
**The Frequency of Distribution of Speaking Mastery**

Interval	Mid Point	Frequency	Percentage
60 - 63	61,5	2	9.09%
64 - 67	65,5	6	27.27 %
68 - 72	70,5	8	<b>36.37%</b>
73 - 76	74,5	4	18.18%
77 - 80	78,5	2	9.09%
Total		22	100%

Based on table above, it was known that the variable revelation of speaking mastery shown that the respondent an interval 60-63 were 2 students (9.09%), interval 64-67 were 6 students (27.27%), interval 68-72 were 8 students (36.37%), interval 73-76 were 4 students (18.18%) and the last interval 77-80 were 2 students (9.09%).

In order to get a description of the data clearly and completely, the researcher presents them in the histogram on the following figure:

Frequency



**Figure 2: The Histogram of Speaking Mastery at grade VIII students of SMP N 5 Padangsidimpuan**



By looking the above histogram, it can be said that the curve was normal. The degree of students' (respondent) in agreement of speaking mastery were the highest at the middle position.

## B. Testing of Hypothesis

### 1. Normality Test

After got the resume score of variable X and variable Y, the data was analyzed by using Chi-Square formula to know the data was normal or not. Normality test was as the requirement of test before go to the testing hypothesis.

**Table 10**  
**Normality and Homogeneity Data X dan Data Y**

Class	Normality Test		Homogeneity Test	
	$t_{count}$	$t_{table}$	$f_{count}$	$f_{table}$
Data X	2,549	7,815	1.013 < 2.12	
Data Y	6,522	7,815		

Based on the table above, the score of data X = 2.549 < 7.815 with n = 22 and data Y = 6.522 < 7.815 with n = 22 and real level  $\alpha$  0.05. It means that data X dan data Y were distributed normal. It can be seen in appendix 15.

The coefficient of  $F_{count} = 1.013$  was compared with  $F_{table} = 2.12$  Where  $f_{table}$  was determined at real  $\alpha$  0.05, and the different numerator  $dk = N - 1 = 22 - 2 = 20$ . So, by using the list of critical value of F distribution is got  $F_{0.05} = 2.12$  it showed that  $F_{count} 1.013 < F_{table}$

2.12. It shows that both variable X and Y were homogeneous. The calculation can be seen on the appendix 16.

## 2. Testing of Hypothesis

Hypothesis testing aims to determine the correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan by using the product moment formula. Before testing the hypothesis, first performed the calculation of the scores obtained by the respondents as below :

$$X = 1596$$

$$Y = 1530$$

$$X^2 = 116274$$

$$Y^2 = 107\ 050$$

$$XY = 111\ 410$$

By using the values above, calculated the value of correlation between variable X and Y :

$$\begin{aligned} r_{xy} &= \frac{n \sum xy - (\sum x) (\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2] [n \sum y^2 - (\sum y)^2]}} \\ &= \frac{22.111\ 410 - (1596)(1530)}{\sqrt{[2 \cdot 116\ 274 - (1596)^2] [2 \cdot 107\ 050 - (1530)^2]}} \\ &= \frac{2\ 451\ 020 - 2\ 441\ 880}{\sqrt{[2\ 558\ 028 - 2\ 547\ 216] [2\ 355\ 100 - 2\ 340\ 900]}} \\ &= \frac{9\ 140}{\sqrt{(10\ 812)(14\ 200)}} \\ &= \frac{9\ 140}{\sqrt{153\ 530\ 400}} \\ &= \frac{9\ 140}{12\ 390\ 738} \end{aligned}$$



= 0.737

$H_a$  : there is a significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan.

$H_o$  : there is no significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan.

So, based on the calculation between variabel X and Y by  $r_{xy}$ , the researcher got 0.737. The calculating product moment by getting correlation coefficients  $r_{xy} = 0.737$  was more than  $r_{table} = 0,423$  on 5% and 1% = 0,537. The result showed that there was a significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidempuan. It means that  $H_a$  is accepted and  $H_o$  is rejected. It had been written in the table of coefficient correlation interpretation.

**Table 11**  
**Categories Value Correlation Coefficient**  
**and Strength Correlation**

No	Value of high r	Interpretation
1	0.90 – 1.00	Very good
2	0,70 – 0,90	Good
3	0,40 – 0,70	Enough
4	0,20 – 0,40	Low
5	0.00 – 0,20	Lowest

To look for the contribution of Variable X and Y as follows:

KP : the score of determine coefficient

r : the score of the coefficient correlation

KP :  $r^2 \times 100\%$

:  $(0,737)^2 \times 100\%$

:  $0.5431 \times 100\%$

: 54.31%

Based on X variable (vocabulary mastery) and Y variable (speaking mastery), the result of contribution was 0,737 belong to good category contribution variable has KP 54.31% and 45.69% influenced by other variable.

Testing the truth of significant correlation, used the formulate

$t_{\text{count}}$  :

$$\begin{aligned} T_{\text{count}} &= \frac{r\sqrt{n-2}}{1-r^2} \\ &= \frac{0.737\sqrt{22-2}}{1-(0.737)^2} \\ &= \frac{0.737\sqrt{20}}{1-0.5431} \\ &= \frac{0.737 \cdot 4.472}{0.45} \\ &= \frac{3.295}{0.45} \\ &= 7.322 \end{aligned}$$

Based on the calculative above,  $t_{\text{count}} > t_{\text{table}}$  namely  $t_{\text{count}}$  : 7,322 and  $t_{\text{table}}$  on significant 5% = 2,086 and on 1% = 2,845. It means that there was significant correlation between two variables that it was



said that the validity of the contribution of variable X to variable Y was valid or could be say that the validity of the distribution of variable X and variable Y was “accepted”.

### C. The Discussion of the Result

After did the research, the researcher found that the correlation between vocabulary mastery and speaking mastery students at grade VIII Students of SMP N 5 Padangsidempuan is in high correlation. The researcher discussed the result and compared it with result in research related finding. But, previously, the researcher said that there was no research that was exactly the same as the title of this study, namely “The Correlation between vocabulary mastery and speaking mastery”. So, the researcher compared with the other research one by one the variable of this research, such as:

First, the research done by Talita Fitri Ashari, she concluded that there is a correlation between mastering vocabulary and speaking skills of second grade students of junior high school in Pakal Surabaya. The result was  $r_{\text{count}} > r_{\text{table}}$  ( $0,72 > 0,250$ ) which means the hypothesis was accepted.<sup>59</sup> Second, the researcher done by Yus Vernandez Uzer, he concluded that there is a a positive correlation between vocabulary mastery and English speaking ability of the Tenth Grade Students of Senior High

---

<sup>59</sup>Talita Fitri Ashari, “The Correlation between Students’ Vocabularies Mastery and Speaking Skill at SMP AL-Azhar Surabaya,” *Journal of Applied Linguistics and Islamic Education* 03, no. 1 (2019): 201–30, <http://google.scholar.co.id>.

School 12 Palembang. The result was ( $r_{\text{count}} 0,630 > r_{\text{table}} 0,320$ ).<sup>60</sup> Third, Putri Aulia and Refnaldi they found that there is a correlation between vocabulary mastery and speaking ability at grade 8 of Junior High School. They were proved by the mean score 65 for vocabulary mastery and 68 for speaking ability. Moreover, there was strong correlation between students' vocabulary mastery and speaking ability. It was shown by the  $r_{\text{value}} = 0,703$  was higher than  $r_{\text{table}} = 0,361$ .<sup>61</sup>

So far exactly there is no research that the same title with this research. It was proved that this reasearch about vocabulary mastery and speaking mastery was rather different with the other research. In other words it was supported by this research and it was proved by testing hypothesis of the research. This fact can be seen from  $r_{\text{count}} > r_{\text{table}} (0,737 > 0,423)$ . So, it is clearly vocabulary mastery have the significant correlation to students speaking mastery. Vocabulary mastery is needed and really important in speaking.

#### **D. Limitation of the Research**

The researcher limits this research, as follow:

1. The researcher did not know how serious the students were in answering the questionnaire.

---

<sup>60</sup>Yus Vernandez Uzer, "The Correlation between Vocabulary Mastery and English Speaking Ability of the Tenth Grade Students of Senior High School 12 Palembang" (Universitas PGRI Palembang, 2017), <http://www.journal.unrika.ac.id>.

<sup>61</sup>Aulia Putri and Refnaldi, "The Correlation between Students' Vocabulary Mastery and Speaking Ability at Grade 8 Of Junior High School," *Journal of English Language Teaching* 9, no. 1 (2020): 1–100, <http://google.scholar.co.id>.



2. The researcher was in capable of measuring honest aspects of the students in answering the test that given. until possibly the students cheat or guess.
3. The researcher did not know wether students' concentrated or not in answering the test and questionnaire, and time was limited.

## CHAPTER V

### CONCLUSION AND SUGGESTION

#### A. Conclusion

After getting the result of research work, the research come to describe the data as follow:

1. Students vocabulary mastery at grade VIII students of SMP N 5 Padangsidimpuan was “good” getting mean score were 73,60.
2. Students speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan was “enough” by getting mean score were 69,77.
3. There was a significant correlation between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan. On the result of calculating data, the hypothesis  $H_a$  was accepted whereas  $H_o$  was rejected. The calculating of product moment by getting correlation coefficient  $r_{xy} = 0.737$ . The significant correlation level was done by looking  $r_{table}$  ( $r_t$ ) on significant level 5% was 0,423. The hypothesis ( $H_a$ ) in this research was accepted namely  $r_{count} > r_{table}$  ( $0.737 > 0.423$ ). Then, categories value correlation coefficient between vocabulary mastery and speaking mastery at grade VIII students of SMP N 5 Padangsidimpuan that showed the correlation in to high category.



## **B. Suggestion**

Here, the researcher give information as follows:

1. The headmaster of SMP N 5 Padangsidimpuan was hoped to support all English teacher to teach well and provide facilities involves with learning English.
2. The English teacher should give a positive stimulus to increase students speaking mastery and also as references in teaching English.
3. The researcher hopes that the others researchers who want to conduct a research related to this research to find the others influence. In order to motivate readers more critics and consider whatever they read and the researcher hopes to another researcher to do the research with the same title with this research namely “The Correlation between Vocabulary Mastery and Speaking Mastery” and get the better value.

## REFERENCES

- A S Hornby. *Oxford Learners' Pocket Dictionary*. Fourth Edi. New york: Oxford University, 2008.
- Abdelrahim, Afaf, and Jalal Eldin. "The Role of Vocabulary Learning Strategies in Enhancing EFL Learners' Writing Skills." *International Journal of Humanities Social Sciences and Education* 4, no. 8 (2017): 41–50. <http://dx.doi.org/10.20431/2349-0381.0408006>.
- Afna, Mauloeddin. "The Correlation Between Vocabulary and Speaking Skill." *Journal of Linguistics, Literature & Language Teaching* IV, no. 1 (2018): 43–71. <http://sinta.ristek.go.id>.
- Ahmad Nizar Rangkuti. *Statistik Untuk Penelitian Pendidikan*. Medan: Perdana Publishing, 2015.
- Airaisan, L. R. Gay and Petter. *Educational Research for Analysis and Application*. America: Prentice Hall, 1992.
- Alqahtani, Mofareh. "The Important of Vocabulary in Language Learning And How to Be Taught." *International Journal of Teaching and Education* III, no. 3 (2015): 21–34. <https://doi.org/10.20472/TE.2015.3.3.002>.
- Anas Sudijono. *Pengantar Evaluasi Pendidikan*. Jakarta: PT Raja Grafindo Persada, 1996.
- Anas Sudjiono. *Pengantar Statistik Pendidikan*. Jakarta: Pt Raja Grapindo, 2005.
- Arikunto, Suharsimi. *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta, 2006.
- Arthur Huges. *Testing for Language Teachers*. USA: Cambridge University 1 Press, 1990.
- Ary, Donald, Lucy Cheeser Jacobs, Chris Sorensen, Asghar Razavieh. *Introduction to Research in Education*. Canada: Wadsworth Cengage Learning, 2010.
- Ashari, Talita Fitri. "The Correlation between Students' Vocabularies Mastery and Speaking Skill at SMP AL-Azhar Surabaya." *Journal of Applied Linguistics and Islamic Education* 03, no. 1 (2019): 201–30. <http://google.scholar.co.id>.
- Brown, H Douglas. *Teaching by Principles an Interactive Approach to Language*



*Pedagogy*, 2007.

David P Harris. *Testing English as a Second Language*. New York : Mc Graw Hill book company, 1996.

H. Douglass Brown. *Language Assessment Principle and Classroom Practice*. San Francisco: Longman, 2004.

Hendriati Afebi. "Factors Affecting Students' Difficulties in Speaking Performance of the Tenth Grade Students of SMA Negeri 1 Tiworo Kepulauan." *Journal of English Education and Teaching* 3, no. 1 (2019): 95–105.

Kathleen M. Bailey. *Practical English Language Teaching 1st Edition*. New York: The Mc. Graw-Hill Company, n.d.

Nina Aristi, Atni Pratiwi. "The Correlation between Vocabulary Mastery and Speaking Ability in Describing People By Second Year Students of SMP N 12 Bintan." *Jurnal Online Mahasiswa* 4, no. 2 (2017): 1–9. <http://www.neliti.com>.

Nunan, David. *Practical English Language Teaching*. Singapore: Mc Graw Hill, 2003.

Putri, Aulia, and Refnaldi. "The Correlation between Students' Vocabulary Mastery and Speaking Ability at Grade 8 Of Junior High School." *Journal of English Language Teaching* 9, no. 1 (2020): 1–100. <http://google.scholar.co.id>.

Richards, Jack, and Richard W Schmidt. *Longman Dictionary of Language Teaching and Applied Linguistics*. Fourth edi. UK: Person education, 2010.

Sanapiah Faisal dan Mulyadi Guntur. *Metode Penelitian Dan Pendidikan*. Surabaya: Usaha Nasional, 1982.

Shiamaa Abd EL Fattah Torky. "The Effectiveness of a Task- Based Instruction Program in Developing the English Language Speaking Skills of Secondary Stage Students," 2006. <https://www.awej.org>.

Siregar, Fitri Rayani. "Using the Word Card Technique in Teaching Vocabulary." *English Education: English Journal for Teaching and Learning* 4 (2016): 1–13. <http://scholar.google.co.id/scholar?oi=bibs&cluster=1972924495531024957&btnl=1&hl=en>

Siregar, Sri Rahmadhani. "Using Direct Method in Teaching Speaking." *English*



*Education: : English Journal for Teaching and Learning* 4 (2016): 34–47.  
<http://scholar.google.co.id/scholar?oi=bibs&cluster=7415827780138065959&btnl=1&hl=en>

Sugiyono. *Metode Penelitian Kuantitatif Dan Kualitatif Dan R&D*. Bandung: Alfabeta, 2008.

Suharsimi Arikunto. *Prosedur Penelitian*. Jakarta: Rineka Cipta, 2002.

Taslim, Andi Asrifan. “The Correlation between Students Vocabulary Mastery and Speaking Skill.” *Journal of Advanced English Studies* 2, no. 2 (2019): 65–76. <http://sastra.unifa.ac.id>.

Umar, Husein. *Metode Riset Bisnis*. Jakarta: PT Gramedia Pustaka Utama, 2003.

Uzer, Yus Vernandez. “The Correlation between Vocabulary Mastery and English Speaking Ability of the Tenth Grade Students of Senior High School 12 Palembang.” Universitas PGRI Palembang, 2017.  
<http://www.journal.unrika.ac.id>.

Wachidah, Siti, Asep Gunawan, Diyantari, and Yuli Rulani Khatimah. *When English Rings a Bell*. Jakarta Pusat Kurikulum dan Perbukuan, Balitbang, Kemendikbud, 2018.

Wang, Zhiqin. “Developing Accuracy and Fluency in Spoken English of Chinese EFL Learners.” *English Language Teaching* 7, no. 2 (2014): 110–18.  
<https://doi.org/10.5539/elt.v7n2p110>.

Yates, Lynda, and Beth Zielinski. *Give It a Go: Teaching Pronunciation to Adults*. Australia: AMEP Research Centre on behalf of the Department of Immigration and Citizenship Macquarie University Sydney, 2009.



## CURRICULUM VITAE



### A. Identity

Name : ANRY ANI  
Nim : 162030 0008  
Place and Birthday : Padangsidempuan, 17<sup>th</sup> May 1998  
Gender : Female  
Religion : Islam  
Address : Jln Abdul Haris Nasution, Padangsidempuan.

### B. Parents

1. Father : Abdullah Soleh Siregar  
2. Mother : Ummi Kalsum

### C. Educational Background

1. Elementary School	: SD N 200208 Padangsidempuan	2004-2010
2. Junior High School	: SMP N 2 Padangsidempuan	2010-2013
3. Senior High School	: SMA N 5 Padangsidempuan	2013-2016
4. Collage	: IAIN Padangsidempuan	2016-2021





**KEMENTERIAN AGAMA REPUBLIK INDONESIA  
INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUAN  
FAKULTAS TARBIYAH DAN ILMU KEGURUAN**

Jalan T. Rizal Nurdin Km. 4,5 Sihitang 22733  
Telephone (0634) 22080 Faximile (0634) 24022

17 September 2019

Jumlah : 103 /In.14/E.6a/PP.00.9/09/2019  
Tempat : -  
Perihal : Pengesahan Judul dan Pembimbing Skripsi

Kepada Yth:

1. Dr. Fitriadi Lubis, M.Pd

(Pembimbing I)

2. Fitri Rayani, M.Hum

(Pembimbing II)

di-Padangsidempuan

Assalamu'alaikum Wr. Wb.

Dengan hormat, sehubungan dengan hasil sidang bersama tim pengkaji judul skripsi Program Studi Tadris/Pendidikan Bahasa Inggris (TBI) Fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidempuan. Maka dengan ini kami mohon kepada Bapak/Ibu agar dapat menjadi pembimbing skripsi dan melakukan penyempurnaan judul bilamana perlu untuk mahasiswa dibawah ini dengan data sebagai berikut:

Nama : Anry Ani  
NIM : 16 203 00008  
Fak/Jurusan : Tarbiyah dan Ilmu Keguruan/ Tadris Bahasa Inggris  
Judul skripsi : The Correlation between Vocabulary Mastery and Speaking Mastery at Grade VIII Students of SMP N 5 Padangsidempuan

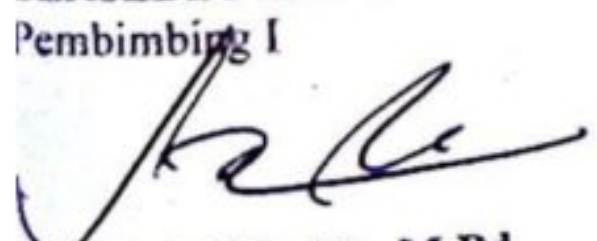
Demikian disampaikan, atas kesediaan dan kerjasama yang baik dari Bapak/Ibu kami ucapkan terima kasih.

Ketua Program Studi Tadris Bahasa Inggris


  
Fitri Rayani Siregar, M.Hum.  
NIP. 19820731 200912 2 004

PERNYATAAN KESEDIAAN SEBAGAI PEMBIMBING

BERSEDIA/TIDAK BERSEDIA  
Pembimbing I

  
Dr. Fitriadi Lubis, M.Pd  
NIP. 19620917 199203 1 002

~~BERSEDIA/TIDAK BERSEDIA~~  
Pembimbing II

  
Fitri Rayani Siregar, M.Hum  
NIP. 19820731 200912 2 004





**KEMENTERIAN AGAMA REPUBLIK INDONESIA**  
**INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUAN**  
**FAKULTAS TARBIYAH DAN ILMU KEGURUAN**  
Jalan T. Rizal Nurdin Km. 4,5 Sihitang 22733  
Telepon (0634) 22080 Fax/mf (0634) 24022

Nomor : B - 1672 /In.14/E.1/TL.00/11/2020  
Hal : Izin Penelitian  
Penyelesaian Skripsi.

26 November 2020

Yth. Kepala SMP N 5 Padangsidempuan  
Kota Padangsidempuan

Dengan hormat, bersama ini kami sampaikan bahwa :

Nama : Anry Ani  
NIM : 1620300008  
Program Studi : Tadris/Pendidikan Bahasa Inggris  
Fakultas : Tarbiyah dan Ilmu Keguruan

adalah Mahasiswa Fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidempuan yang sedang menyelesaikan Skripsi dengan Judul "The Correlation between Vocabulary Mastery and Speaking Mastery at Grade VIII Students of SMP N 5 Padangsidempuan".

Sehubungan dengan itu, kami mohon bantuan Bapak/Ibu untuk memberikan izin penelitian sesuai dengan maksud judul diatas.

Demikian disampaikan, atas kerja sama yang baik diucapkan terimakasih.

a.n.Dekan  
Wakil Dekan Bidang Akademik



Dr. Ahmad Nizar Rangkuti, S.Si., M.Pd.  
NIP. 19800413 200604 1 002





PEMERINTAH KOTA PADANGSIDIMPUAN  
DINAS PENDIDIKAN  
**SMP NEGERI 5 PADANGSIDIMPUAN**

Jl. Perintis Kemerdekaan No. 61 Padangsidempuan Selatan  
Telp. (0634)22255 Kode Pos 22727

**SURAT KETERANGAN**

NOMOR : 422 / 226 / SMP.5 / 2020

Yang bertanda tangan dibawah ini Kepala SMP Negeri 5 Padangsidempuan di Padangsidempuan, menerangkan bahwa:


Nama : ANRY ANI  
NPM : 1620300008  
Prodi : Tadris/Pendidikan Bahasa Inggris  
Fakultas : Tarbiyah dan Ilmu Keguruan

benar telah mengadakan penelitian (Riset) di SMP Negeri 5 Padangsidempuan pada tanggal 27 Nopember 2020 s/d selesai, guna untuk melengkapi penyelesaian skripsinya yang berjudul : "The Correlation between Vocabulary Mastery and Speaking Mastery at Grade VIII Students of SMP N 5 Padangsidempuan", sesuai dengan surat Dekan Fakultas Tarbiyah dan Ilmu Keguruan Institut Agama Islam Negeri (IAIN) Padangsidempuan nomor : B-1632/In.14/E.1/TL.00/11/2020 tanggal 26 Nopember 2020.

Demikianlah surat keterangan ini dibuat dengan sebenarnya untuk dipergunakan seperlunya.

Padangsidempuan, 15 Desember 2020

Kepala SMP Negeri 5 Padangsidempuan  
An. Wakasek Bid. Kurikulum



R. HAWAR, S.Pd  
NIP. 19730202 200502 2 001



## Appendix 1

### Vocabulary Test

Name :

Room :

#### Instruction :

1. Write your name and your room on the top right.
2. Read question carefully before you answer.
3. Choose one the best answer.
4. Pray before doing the test!

#### A. Answer the question bellow by giving cross (X) in the correct answer!



1. The picture behind in English is..  
a. Turtle  
b. Snail  
c. Flamingo  
d. Snake
2. Which animals can fly?  
a. Bird  
b. Cat  
c. Fish  
d. Bear
3. What is the food of dolphin?  
a. Fish  
b. Nugget  
c. Spinach  
d. Banana
4. Beetle are an insect that live anywhere from 2 days to as long as 11 months. He has small body and can flying. The underlined word in Bahasa Indonesia is..  
a. Kupu-kupu  
b. Serangga  
c. Burung gagak  
d. Kumbang
5. Grass is the favorite food of deer. Grass in Bahasa Indonesia is..  
a. Wortel  
b. Kacang  
c. Rumput  
d. Sayur
6. Animals that used their long trunks to put food and water in their mounths is..



7. Ants are small insects. Some ants have a stinger. stinger in Bahasa Indonesia is..

- a. Alat penyengat
- b. Alat masak
- c. Alat tidur
- d. Alat mandi

8. Rabbit have a long ears, which can be more than 10 cm. The underlined word in Bahasa Indonesia is..

- a. Telinga yang panjang
- b. Hidung yang pese
- c. Pendengaran yang jelas
- d. Pendengaran yang tajam

9. Cat is a ... animal

- a. Tame
- b. Wild
- c. Dangerous
- d. Cattle

10. What do you call cockroach in Bahasa Indonesia..

- a. Badak Jawa
- b. Kecoa
- c. Jerapah
- d. Zebra

11. What we call Dragonfly in Bahasa Indonesia?

- a. Gorilla
- b. Capung
- c. Kumbang
- d. Cicak



12. The name of animals behind is..

- a. Ant
- b. Dog
- c. Turtle
- d. Snail

13. What is the food of owls?

- a. Mouse
- b. Meat
- c. Insect
- d. Fish

14. Pollen in Bahasa Indonesia is...



- a. Kelopak
- b. Serbuk Sari
- c. Bunga
- d. Daun

15. Bear is a wild animal. The underlined word in Bahasa Indonesia is..

- a. Beruang
- b. Katak
- c. Macan tutul
- d. Gorilla

16. Rabbit has ... foot

- a. 2 foot
- b. 4 foot
- c. 6 Foot
- d. 8 foot

17. Bats are the only mammals that can fly. Bats in Bahasa Indonesia is..

- a. Kelelawar
- b. Unta
- c. Semut
- d. Cacing

18. Every day rabbit eats carrot and fresh vegetables. Fresh vegetables in Bahasa Indonesia is....

- a. Sayur-sayuran yang segar
- b. Sayur
- c. Sayur mayur
- d. Buah




19.  In English means..

- a. Sheep
- b. Chicken
- c. Bird
- d. Pig

20. Leopard in Bahasa Indonesia is..

- a. Macan Tutul
- b. Domba
- c. Semut
- d. Penyu



21.  What is the food of that animals..

- a. Mouse
- b. Buffalo
- c. Goat
- d. Bird



22.  In English we call..

- a. Peanut  
b. Milk
- c. Chili  
d. Carrot
23. Buah in English is...
- a. Fruit  
b. Insect
- c. Grains  
d. Vegetable
24. Bone in Bahasa Indonesia is...
- a. Daging  
b. Tulang
- c. Bangkai  
d. Kulit
25. Worm in Bahasa Indonesia is...
- a. Daging  
b. Cacing
- c. Kacang  
d. Serangga
26. Elephant, goat and horse eat..
- a. Grass  
b. Bread
- c. Water  
d. Apple
27. What does grain means in Bahasa Indonesia..
- a. Biji-bijian  
b. Daging
- c. Buah-buahan  
d. Sayuran
28. Elephants eat grass, fruit and branches. The underlined word in Bahasa Indonesia is...
- a. Ranting, rumput dan sayur  
b. Rumput, buah dan ranting
- c. Tangkai, buah dan tomat  
d. Dedaunan
29. Cat likes eating fish and special snacks for cats. Fish in Bahasa Indonesia is..
- a. Ikan hiu  
b. Ikan
- c. Tuna  
d. Tulang
30. Plant in Indonesia is....
- a. Daun  
b. Tumbuhan
- c. Ranting  
d. Pohon
31. Monkey likes banana. In Indonesia banana means..
- a. Kurma  
b. Pisang
- c. Anggur  
d. Pepaya



32. What is the meaning of peanut in Bahasa Indonesia?

- a. Kacang
- b. Jagung
- c. Cabai
- d. Kelapa

33. Bird have feather, wings and..

- a. Trunk
- b. Jaw
- c. Teeth
- d. Beak

34. The picture behind in English is....



- a. Meat
- b. Vegetable
- c. Honey
- d. Fish

35. What is giraffe food?

- a. Peanut
- b. Water
- c. Milk
- d. Juice



36. what is the food of that animals..

- a. Zooplankton
- b. Fish
- c. Worm
- d. Insect



37. in English is...

- a. Lettuce
- b. Peanut
- c. Pumpkin
- d. Tomato

38. Penguin in English is..

- a. Penguin
- b. Camel
- c. Snake
- d. Carrot

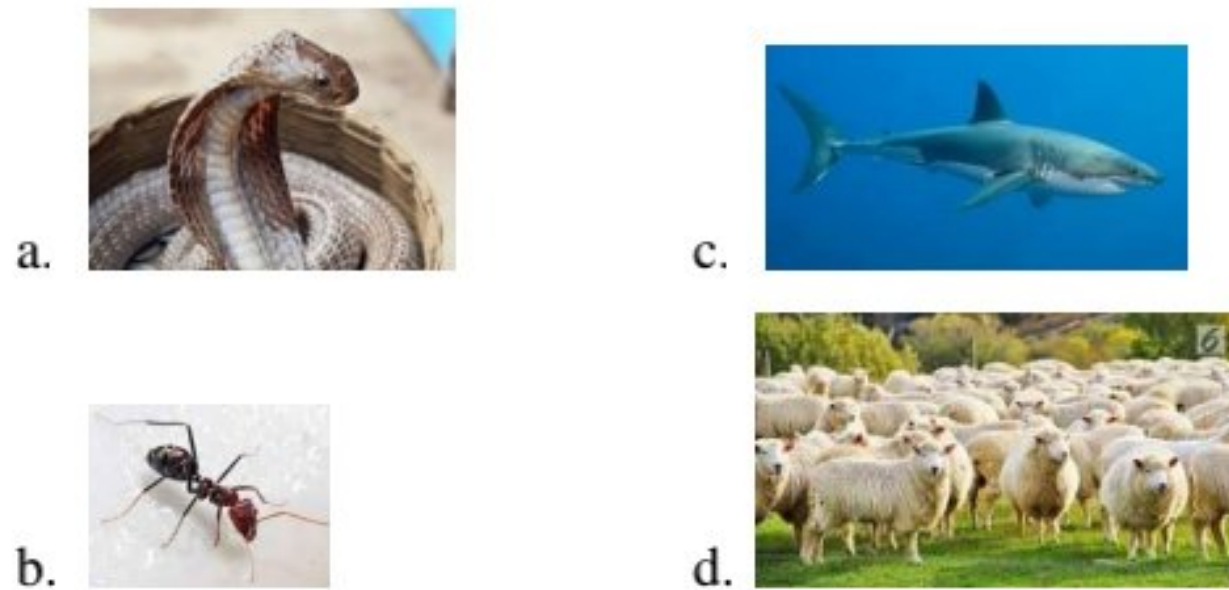
39. Memanjat in English means..

- a. Climb
- b. Hunt
- c. Hop
- d. Swim

40. Rabbit is jump. in Indonesia jump means..

- a. Berjalan
- b. Bekerja
- c. Melompat
- d. Berlari

41. Animals has long body, not have foot and lives in forest and dangerous is..



42. .... is a herbivors

- a. Giraffe
- b. Watermelon
- c. Tiger
- d. Bear



43. What is the name of that animals...

- a. Koala
- b. Monkey
- c. Orangutan
- d. Roar

44. The picture behind in English is...



- a. Corn
- b. Peanut
- c. eggplant
- d. Spinach



45. What is the food of animals behind is

- a. Banana
- b. Watermelon
- c. Duku
- d. Peanut

46. Merayap in English...



- a. Run
- b. Hop
- c. Roar
- d. Creep

47. A .... has long neck

- a. Pigeon
- b. Eagle
- c. Bird
- d. Tiger



48. What is the food of animal that picture behind..

- a. Fruit
- b. Chocolate
- c. Fried rice
- d. Grass

49. The characteristic of kangaroo is has pocket. in Indonesia pocket means..

- a. Bulu
- b. Sayap
- c. Uang
- d. Kantong

50. Mengaum in English is...

- a. Migrate
- b. Rove
- c. Roar
- d. Slither



51. What is the food of flamingo..

- a. Shrimp
- b. Water
- c. Juice
- d. Grape

52. What do we call mencakar in English....

- a. Hibernate
- b. Scratch
- c. Purr
- d. Catch

53. What is the characteristic of rabbit?

- a. Can run
- b. Can fly
- c. Can jump
- d. Can creep

54. Giraffe has two small horns on it is head. The underlined words in Bahasa Indonesia is..

- a. Memiliki 2 tanduk kecil di kepala nya
- b. Memiliki 3 tanduk kecil di kepala nya

- c. Memiliki 2 tanduk panjang di kepala nya
- d. Memiliki 2 tanduk kecil di hidung nya



55. The food of crab is a small fish, alga, worm and mushrooms. The underlined word in Bahasa Indonesia is..
- a. Ikan, alga, cacing, jamur
  - b. Ikan kecil, cacing, jamur
  - c. Ikan, cacing, jamur
  - d. Ikan kecil, ganggang, cacing dan jamur
56. Fox is an ...
- a. Mamals
  - b. Reptile
  - c. Omnivore
  - d. Amphibians
57. The body of the crab is protected by a strong shell. in Bahasa Indonesia shell is...
- a. Bulu
  - b. Cangkang
  - c. Hibernate
  - d. Stay
58. Fruit in Bahasa Indonesia we call ..
- a. Buah
  - b. Sayur-sayuran
  - c. Bayam
  - d. Nasi
59. What do we call berburu in English....
- a. Hibernate
  - b. Hunt
  - c. Purr
  - d. Catch
60. .... is a wild animals
- a. Monkey
  - b. Cat
  - c. Fly
  - d. Snake



61. what is the name of that animals?
- a. Octopus
  - b. Lobster
  - c. Fox
  - d. Crab






62. What is the food of that animals?
- a. Leaf
  - b. Pumpkin
  - c. Peanut
  - d. Carrot
63. Elephant has one long nose. long nose Indonesia means..
- a. Mata yang panjang
  - b. Rambut yang panjang
  - c. Badan yang panjang
  - d. Hidung yang Panjang
64. .... the king of the Forest
- a. Ant
  - b. Tiger
  - c. Cat
  - d. Frog
65. Giraffe and goat eats..
- a. Grass
  - b. Water
  - c. Insect
  - d. Hone
66. The .... helps farmer to plow the rice fields
- a. Sheep
  - b. Cow
  - c. Bufallo
  - d. Goat
67. .... is a Reptile animal
- a. Eagle
  - b. Rooster
  - c. Bird
  - d. Snake
68. .... is the Omnivor animal
- a. Bear
  - b. Semut
  - c. Chicken
  - d. Ant
69. The .... fly on the sky
- a. Birds
  - b. Buffalo
  - c. Chicken
  - d. Fish
70. This animal lives in the sea. has tentacles. what animals is this?
- a. Octopus
  - b. Zebra
  - c. Duck
  - d. Owl
71. Elephant is the ... animal

- a. Mamalia  
b. Herbivore
- c. Bird  
d. Reptile
72. Lion, tiger, Crocodile and dog are included in..
- a. Carnivore  
b. Reptile
- c. Mamalia  
d. Bird
73. Frog is the ... animal
- a. Amfibi  
b. Carnivore
- c. Mamalia  
d. Omnivore
74. The characteristic of Bunglon is..
- a. Can change body color  
b. Can swim
- c. Can eat  
d. Can fly
75. Camel in indonesia means..
- a. Unta  
b. Burung hantu
- c. Owl  
d. Unggas
76. They are pet animals..
- a. Cat, rabbit and lion  
b. Fish, Zebra and Tiger
- c. Cat, rabbit and chicken  
d. Rabbit, ant and frog
77. Chameleon, and snake are included in..
- a. Reptile  
b. Carnivore
- c. Mamalia  
d. Omnivore
78. Crocodile has a sharp teeth and it is very dangerous. the underlined word in Bahasa Indonesia is..
- a. Gigi yang kuat  
b. Gigi yang tajam
- c. Gigi yang panjang  
d. Gigi yang besar
79. What food does camel eat?
- a. Grass  
b. Meat
- c. Bread  
d. Vegetables
80. The cows eat..
- a. Bone  
b. Grass
- c. Birds  
d. Fish
81. Which animals can swim?



- a. Elephant  
b. Eagle
- c. Dolphin  
d. Tiger
82. Pigeon in Bahasa Indoneisa is...
- a. Gagak  
b. Merpati
- c. Beo  
d. Burung gereja
83. The smallest animal and like sweet food is..
- a. Ant  
b. Elephant
- c. Monkey  
d. Gorilla
84. Frog and lizard like eat..
- a. Insect  
b. Banana
- c. Meat  
d. Fruit
85. Bee has 2 colored stripes(black and yellow) has 2 wings and small size.  
What is that animal in Bahasa Indonesia?
- a. Bee  
b. Pigeon
- c. Insect  
d. Bite
86. Menggantung in English is...
- a. Hang  
b. Bark
- c. Purr  
d. Fly
87. The duck food is..
- a. Grains  
b. Worm
- c. Insect  
d. Grass
88.  What is the food of that animals?
- a. Insect  
b. Chicken
- c. Kangaroo  
d. Duck
89. What food does camel likes?
- a. Camel likes meat  
b. Camel likes Grass
- c. Camel likes Honey  
d. Camel likes bee



90. The characteristic of that animal is..

- a. The heaviest animal
- b. The small animal
- c. The slim animal
- d. The smart animal



91. What is the food of that animals?

- a. Banana
- b. Meat
- c. Vegetable
- d. Table



92. What is the food of that animal?

- a. Grass
- b. Bamboo
- c. Leaves
- d. Meat

93. What is the Leopard food?

- a. Meat
- b. Rice
- c. Noodle
- d. Fried Chicken



94. What does shark food?

- a. Fish
- b. Noodle
- c. Insect
- d. Baby



95. What is the name of that animal?

- a. Squid
- b. Insect
- c. Paper
- d. Dolphin



96. The characteristic of cow is can produce..
- a. Produce milk
  - b. Produce honey
  - c. Produce sauce
  - d. Produce sugar
97. Octopus in indonesia means..
- a. Gurita
  - b. Laba-laba
  - c. Lalat
  - d. Semut
98. What is the characteristic of bird?
- a. Has wings
  - b. Has 4 foot
  - c. can climb
  - d. can dancing
99. What is the characterictic of lizard?
- a. Catch insects with the tongue
  - b. Jumping on the tree
  - c. Hung on the wood
  - d. Eat food bu using hand
100. Berimigrasi in English is...
- a. Roar
  - b. Migrate
  - c. Hibernate
  - d. Hunt
101. The characteristic of rabbit like carrot and..
- a. Run fast
  - b. Laugh
  - c. Sad
  - d. Fly
102. Dolphin can ... in the water
- a. Swim
  - b. Jump
  - c. Run
  - d. Climb



103. Look at this animal!

it has beautiful..

- a. Body
  - b. Teeth
  - c. Feather
  - d. Hair
104. The characteristic of bee is can produce..
- a. Produce honey
  - b. Produce juice
  - c. Produce Milk
  - d. Produce Sugar
105. Porcupine in Bahasa Indonesia is..

- a. Udang
  - b. Landak
  - c. Insect
  - d. Fruit
106. How many legs does bird have?
- a. One
  - b. Two
  - c. three
  - d. four
107. The characteristic of chicken can produce..
- a. Produce egg
  - b. Produce bread
  - c. Produce sauce
  - d. Produce chili
108. A ..... has beautiful wings
- a. Chicken
  - b. Butterfly
  - c. Kangaroo
  - d. Ant
109. ... is Herbivore animal
- a. Rabbit
  - b. Cat
  - c. Dog
  - d. Bear
110. What is the color of zebra?
- a. White and Black
  - b. Blue and red
  - c. Red and white
  - d. Purple and Black
111. Frog is ... . it can be live on land and in water
- a. Aves
  - b. Mamals
  - c. Amphibians
  - d. Reptile
112. Catfish in Bahasa Indonesia is..
- a. Kambing
  - b. Ikan lele
  - c. Kucing
  - d. Semut
113. Frog can be live on land and in water The underlined words in Bahasa Indonesia is..
- a. Dapat hidup di darat dan di air
  - b. Dapat hidup di 2 tempat
  - c. Dapat hidup di darat saja
  - d. Semua benar
114. What does giraffe food?
- a. Fruit
  - b. Insect
  - c. Insect
  - d. Fruit



- b. Ant d. Butterfly
115. A giraffe has a long..  
 a. Mouth c. Ears  
 b. Stomach d. Neck
116. It is a tame animal. it smart and funny. It lives in the sea or the circus. it eats fish. What is the name of that animals?  
 a. Dolphin c. Bear  
 b. Bird d. Cat
117. Monkeys like to ... on trees  
 a. Climb c. Run  
 b. Walk d. Dance
118. The lizard like eat insect and can ...  
 a. Can creep c. Can sing  
 b. Can run d. Can dance
119. A otter likes..  
 a. Carrot c. Candy  
 b. Warm d. Chili
120. Weasel in Bahasa Indonesia is..  
 a. Spider c. Cheetah  
 b. Musang d. Crocodile
121. What is the food of penguin?  
 a. Shrimp c. Peanut  
 b. Insect d. Rice
122. ... Is a strong animal. It help people carry heavy things.  
 a. Pig c. Horse  
 b. Goat d. Sheep
123. The monkey often eats banana and peanuts. Banana and peanut in Indonesia we call?  
 a. Pisang dan Kacang c. Buah dan sayur  
 b. Kacang dan Buah d. Apel dan Anggur

124. Crocodile are the biggest reptiles in the world. The underlined word in Bahasa Indonesia is..

- a. Monkey
- b. Buaya
- c. Tiger
- d. Bear

125. Bears have thick fur coats to protect them from the cold. The underlined word in Indonesia means..

- a. Bulu yang tebal
- b. Kaki yang panjang
- c. Mata yang panjang
- d. Rambut yang tebal



## Appendix 2

### KEY ANSWER

1. A	31. A	61. A	91. A	121. A
2. D	32. D	62. B	92. A	122. B
3. A	33. A	63. A	93. D	123. B
4. A	34. A	64. A	94. B	124. B
5. C	35. A	65. A	95. A	125. A
6. B	36. C	66. C	96. A	
7. A	37. A	67. A	97. A	
8. A	38. B	68. A	98. A	
9. A	39. A	69. A	99. C	
10. B	40. C	70. B	100. A	
11. B	41. A	71. B	101. A	
12. D	42. A	72. A	102. B	
13. A	43. A	73. A	103. A	
14. A	44. B	74. A	104. A	
15. A	45. D	75. B	105. B	
16. A	46. C	76. A	106. D	
17. A	47. A	77. B	107. A	
18. A	48. B	78. A	108. A	
19. A	49. C	79. A	109. A	
20. D	50. A	80. A	110. A	
21. A	51. D	81. A	111. C	
22. B	52. C	82. A	112. B	
23. B	53. B	83. B	113. A	
24. B	54. A	84. A	114. A	
25. B	55. D	85. B	115. D	
26. B	56. B	86. A	116. A	
27. A	57. A	87. A	117. A	
28. B	58. D	88. A	118. A	
29. B	59. A	89. A	119. B	
30. B	60. A	90. A	120. B	

**Appen  
dix 3**

**QUESTIONNAIRE RESULT  
VALIDITY OF TEST**

N O	RESP ONDE N	ITEM																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
1	AML AMND	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1
2	ARIEF LEO	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1
3	ASNI	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	IRSN W	1	1	0	0	0	0	0	1	1	0	1	1	1	0	1	1	0	1	0	1	1	1	1	1	0	0	0	0	1	1	1	1	1
5	DEREN ALFIA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1



6	AYU ADHA	1	1	0	0	0	0	0	1	1	0	1	0	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1		
7	NAURA J	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	1		
8	RAJA AZH	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0		
9	RAMN DA	1	1	0	1	1	1	1	0	0	1	0	0	1	1	1	1	0	0	1	0	1	1	1	0	0	0	0	1	1	0	1	1		
10	TMI	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0	1	
11	SDRMN	1	1	0	1	1	0	0	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
12	RAIHN	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1

1 3	WNNDI	0	0	0	0	1	0	0	1	1	0	1	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0		
1 4	MHD ALWI	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	
1 5	DEWI	1	0	0	1	0	0	0	1	1	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	
1 6	YNITA	1	1	0	0	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	
1 7	RZKI	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
1 8	NZWA	1	1	0	0	1	0	0	1	1	0	1	0	1	0	0	1	1	1	0	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1
1 9	PADLN	1	1	1	0	1	0	0	1	1	0	1	1	0	0	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	



20	REZA ONGK	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	1	1	0	0	0	1	1	0	0	0	
21	ZSKIA	0	1	0	0	1	1	0	0	0	1	0	0	1	0	0	0	1	1	0	0	1	0	1	1	0	0	1	0	1	0	1	0	1	0
	N = 21	$\frac{1}{6}$	18	8	9	$\frac{1}{5}$	7	4	13	13	6	13	9	16	$\frac{1}{0}$	13	14	$\frac{1}{1}$	10	10	13	18	14	18	$\frac{1}{4}$	8	12	10	17	$\frac{1}{6}$	11	8	16		
	p	$\frac{0,7}{6}$	0.85	0.38	0.42	$\frac{0,7}{1}$	$\frac{0,3}{3}$	0.19	0.61	0.61	0.28	0.61	0.42	0.76	$\frac{0,4}{7}$	0.61	0.66	$\frac{0,5}{2}$	0.47	0.47	0.61	0.85	0.66	0.85	$\frac{0,6}{6}$	0.38	0.57	0.47	0.80	$\frac{0,7}{6}$	0.52	0.38	0.76		
	q	0.2	0.15	0.62	0.58	0.2	0.6	0.81	0.39	0.39	0.72	0.39	0.58	0.24	0.5	0.39	0.34	0.4	0.53	0.53	0.39	0.15	0.34	0.15	0.3	0.62	0.43	0.53	0.2	0.2	0.48	0.62	0.24		

		4			9	7								3		8						4						4				
	r tabel	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4
	r hitung	0,62	0,671	0,416	0,352	0,549	0,4386	0,462	0,462	0,456	0,462	0,449	0,371	0,311	0,745	0,534	0,533	0,313	0,448	0,635	0,656	0,497	0,671	0,633	0,292	0,499	0,544	0,599	0,477	0,616	0,476	0,621
				T		T						T	T				T							T								



## Appendix 4

Calculation of the formulation  $r_{pb}$

$$r_{pb} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

### 1. Mean score from score total ( $M_t$ )

$$M_t = \frac{\sum X_t}{n}$$

$$M_t = \frac{1600}{21} = 76.2$$

### 2. Standard Deviation ( $SD_t$ )

$$SD_t = \sqrt{\frac{\sum X_t^2}{n} - \left(\frac{\sum X_t}{n}\right)^2}$$

$$SD_t = \sqrt{\frac{138026}{21} - \left(\frac{1600}{21}\right)^2}$$

$$SD_t = \sqrt{6574.19 - 5806.44}$$

$$SD_t = \sqrt{767.75} = 27.7$$

### 3. Mean Score

#### Item 1

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n}$$

$$M_{pl} = \frac{90+111+81+105+38+102+100+106+79}{9}$$

$$M_{pl} = \frac{812}{9} = 90.22$$

#### Item 2

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n}$$

$$M_{pl} = \frac{99+90+88+111+81+100+89+105+102+100+14}{11}$$

$$M_{pl} = \frac{979}{11} = 89$$

### Item 3

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n67}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+41+92+100+89+105+100+74+106+59+79}{17}$$

$$M_{pl} = \frac{1410}{17} = 82.94$$

### Item 4

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n68}$$

$$M_{pl} = \frac{61+111+81+41+92+100+89+105+102+100+106}{11}$$

$$M_{pl} = \frac{988}{11} = 89.82$$

### Item 5

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n69}$$

$$M_{pl} = \frac{99+61+88+111+35+92+100+89+105+100+74+106+79}{13}$$

$$M_{pl} = \frac{1139}{13} = 87.61$$

### Item 6

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n70}$$

$$M_{pl} = \frac{99+61+111+92+100+102+100+106+59+79}{10}$$

$$M_{pl} = \frac{909}{10} = 90.9$$

### Item 7



$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n71}$$

$$M_{pl} = \frac{99+88+111+92+100+89+105+102+40+100}{10}$$

$$M_{pl} = \frac{926}{10} = 92.6$$

### Item 8

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n72}$$

$$M_{pl} = \frac{99+61+90+88+81+92+100+89+105+102+100+14+79+106+59+79}{16}$$

$$M_{pl} = \frac{1344}{16} = 84$$

### Item 9

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n73}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+92+100+105+102+100+14+106+79}{15}$$

$$M_{pl} = \frac{1263}{15} = 84.2$$

### Item 10

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n74}$$

$$M_{pl} = \frac{99+90+88+81+92+100+89+105+38+40+100+74+106+79}{14}$$

$$M_{pl} = \frac{1181}{14} = 84.36$$

### Item 11

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n75}$$

$$M_{pl} = \frac{99+90+88+111+81+92+100+89+105+38+40+100+74+106+59}{15}$$

$$M_{pl} = \frac{1272}{15} = 84.8$$

### Item 12

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n76}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+102+40+106+79}{15}$$

$$M_{pl} = \frac{1248}{15} = 85.6$$

### Item 13

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n277}$$

$$M_{pl} = \frac{99+90+111+81+105+102+40+106+79}{9}$$

$$M_{pl} = \frac{813}{9} = 90.33$$

### Item 14

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n78}$$

$$M_{pl} = \frac{99+88+89+105+102+74+106+59+79}{9}$$

$$M_{pl} = \frac{801}{9} = 89$$

### Item 15

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n79}$$

$$M_{pl} = \frac{99+88+111+92+100+106+59+79}{8}$$

$$M_{pl} = \frac{734}{8} = 91.75$$



### Item 16

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n80}$$

$$M_{pl} = \frac{99+61+90+111+81+92+105+106+79}{9}$$

$$M_{pl} = \frac{824}{9} = 91.55$$

### Item 17

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n81}$$

$$M_{pl} = \frac{99+90+88+111+81+41+92+100+89+105+38+100+74+106+59+79}{16}$$

$$M_{pl} = \frac{1352}{16} = 84.5$$

### Item 18

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n82}$$

$$M_{pl} = \frac{61+88+92+100+89+102+100+106+59+79}{10}$$

$$M_{pl} = \frac{876}{10} = 87.6$$

### Item 19

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n83}$$

$$M_{pl} = \frac{99+90+88+111+81+41+92+100+89+105+102+40+100+14=74+106}{16}$$

$$M_{pl} = \frac{1332}{16} = 83.25$$

### Item 20

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n84}$$

$$M_{pl} = \frac{99+90+88+111+81+92+100+89+105+102+100+74+106+59+79}{15}$$

$$M_{pl} = \frac{1375}{15} = 91.67$$

### Item 21

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n85}$$

$$M_{pl} = \frac{99+90+88+111+81+41+92+100+89+105+38+102+40+100+74+106+59+79}{18}$$

$$M_{pl} = \frac{1494}{18} = 83$$

### Item 22

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n86}$$

$$M_{pl} = \frac{61+88+100+89+105+102+100+74+106+59+79}{11}$$

$$M_{pl} = \frac{963}{11} = 87.54$$

### Item 23

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n87}$$

$$M_{pl} = \frac{61+88+111+92+100+102+74+106+59+79}{10}$$

$$M_{pl} = \frac{872}{10} = 87.2$$

### Item 24

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n88}$$

$$M_{pl} = \frac{99+88+111+35+41+92+100+89+105+102+40+100+106+79}{14}$$

$$M_{pl} = \frac{1187}{14} = 84.75$$



### Item 25

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n89}$$

$$M_{pl} = \frac{99+90+88+111+81+35+41+92+100+89+105+38+102+100+74+106+79}{17}$$

$$M_{pl} = \frac{1430}{17} = 84.12$$

### Item 26

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n90}$$

$$M_{pl} = \frac{99+61+90+88+111+81+92+100+102+100+14+59}{12}$$

$$M_{pl} = \frac{997}{12} = 83.08$$

### Item 27

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n91}$$

$$M_{pl} = \frac{99+61+90+111+81+35+92+100+89+105+102+100+74+106+59+79}{16}$$

$$M_{pl} = \frac{1383}{16} = 86.44$$

### Item 28

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n92}$$

$$M_{pl} = \frac{99+90+88+111+81+35+92+100+89+105+38+102+100+14+74+106+59+79}{18}$$

$$M_{pl} = \frac{1462}{18} = 81.22$$

### Item 29

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n93}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+41+92+100+89+102+100+74+106+59}{16}$$

$$M_{pl} = \frac{1328}{16} = 83$$

### Item 30

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n94}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+38+102+40+100+74+106+59+79}{19}$$

$$M_{pl} = \frac{1555}{19} = 81.84$$

### Item 31

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n95}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+92+100+89+102+40+100+74+106}{15}$$

$$M_{pl} = \frac{1268}{15} = 84.53$$

### Item32

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n96}$$

$$M_{pl} = \frac{99+61+90+80+111+81+92+89+105+102+40+100+74+106+59+79}{15}$$

$$M_{pl} = \frac{1288}{15} = 85.87$$

### Item 33

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n97}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+41+92+100+89+105+38+102+100+74+106+59+79}{19}$$

$$M_{pl} = \frac{1550}{19} = 81.58$$



### Item 34

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n98}$$

$$M_{pl} = \frac{99+61+90+88+111+35+92+100+89+105+102+40+106+79}{14}$$

$$M_{pl} = \frac{1197}{14} = 85.5$$

### Item 35

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n99}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+38+102+40+100+74+106+59+79}{19}$$

$$M_{pl} = \frac{1500}{19} = 78.95$$

### Item 36

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n100}$$

$$M_{pl} = \frac{61+90+88+111+81+35+41+92+100+89+105+102+100+74+106+79}{16}$$

$$M_{pl} = \frac{1354}{16} = 84.61$$

### Item 37

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n101}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+102+40+106+79}{15}$$

$$M_{pl} = \frac{1284}{15} = 85.6$$

### Item 38

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n102}$$

$$M_{pl} = \frac{99+61+90+88+111+41+92+100+89+105+102+40+106+79}{14}$$

$$M_{pl} = \frac{1203}{14} = 85.93$$

### Item 39

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n103}$$

$$M_{pl} = \frac{99+90+111+81+92+100+89+102+40+100+74+79}{12}$$

$$M_{pl} = \frac{1057}{12} = 88.08$$

### Item 40

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n104}$$

$$M_{pl} = \frac{99+61+90+111+81+92+89+100+74+59}{10}$$

$$M_{pl} = \frac{856}{10} = 85.6$$

### Item 41

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n105}$$

$$M_{pl} = \frac{90+88+111+81+35+41+92+100+89+105+102+100+106+59+79}{15}$$

$$M_{pl} = \frac{1278}{15} = 85.2$$

### Item 42

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n106}$$

$$M_{pl} = \frac{61+92+100+105+102+106+79}{7}$$

$$M_{pl} = \frac{645}{7} = 92.14$$



### Item 43

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n107}$$

$$M_{pl} = \frac{90+88+111+92+100+89+105+102+100+74+106+59}{12}$$

$$M_{pl} = \frac{1116}{12} = 93$$

### Item 44

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n108}$$

$$M_{pl} = \frac{111+41+105+106+59+79}{6}$$

$$M_{pl} = \frac{501}{6} = 83.5$$

### Item 45

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n109}$$

$$M_{pl} = \frac{99+90+88+111+105+74}{6}$$

$$M_{pl} = \frac{567}{6} = 94.5$$

### Item 46

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n110}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+38+102+40+100+74+106+79}{18}$$

$$M_{pl} = \frac{1496}{18} = 83.11$$

### Item 47

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n111}$$

$$M_{pl} = \frac{90+111+92+100+105+38+106+79}{8}$$

$$M_{pl} = \frac{721}{8} = 90.12$$

### Item 48

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n112}$$

$$M_{pl} = \frac{99+90+111+81+105+102+40+106+59+79}{10}$$

$$M_{pl} = \frac{872}{10} = 87.2$$

### Item 49

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n113}$$

$$M_{pl} = \frac{61+90+88+111+81+89+105+38+102+100+106}{11}$$

$$M_{pl} = \frac{971}{11} = 88.27$$

### Item 50

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n114}$$

$$M_{pl} = \frac{99+90+111+92+100+89+105+102+40+100+74+106+59}{13}$$

$$M_{pl} = \frac{1167}{13} = 89.77$$

### Item 51

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n115}$$

$$M_{pl} = \frac{99+90+88+92+100+89+105+38+100+74+106}{11}$$

$$M_{pl} = \frac{974}{11} = 88.54$$



### Item 52

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n116}$$

$$M_{pl} = \frac{99+61+88+111+92+100+105+102+100+14+106}{11}$$

$$M_{pl} = \frac{978}{11} = 88.91$$

### Item 53

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n117}$$

$$M_{pl} = \frac{99+88+111+92+100+89+105+102+40+100+74+106+59}{13}$$

$$M_{pl} = \frac{1165}{13} = 89.61$$

### Item 54

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n118}$$

$$M_{pl} = \frac{99+90+88+111+41+89+105+102+100+74+106+59}{12}$$

$$M_{pl} = \frac{1064}{12} = 88.67$$

### Item 55

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n119}$$

$$M_{pl} = \frac{90+88+111+81+35+100+105+38+102+100+74+105}{12}$$

$$M_{pl} = \frac{1039}{12} = 86.58$$

### Item 56

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n120}$$

$$M_{pl} = \frac{99+88+111+92+100+105+102+40+100+74+79}{11}$$

$$M_{pl} = \frac{990}{11} = 90$$

### Item 57

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n121}$$

$$M_{pl} = \frac{99+61+111+41+92+100+105+38+102+100+74+106+79}{13}$$

$$M_{pl} = \frac{1108}{13} = 85.23$$

### Item 58

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n122}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+38+102+40+100+74+106+59+79}{19}$$

$$M_{pl} = \frac{1500}{19} = 78.95$$

### Item 59

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n123}$$

$$M_{pl} = \frac{99+61+90+88+111+92+100+89+105+102+40+100+74+106+59}{15}$$

$$M_{pl} = \frac{1316}{15} = 87.73$$

### Item 60

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n124}$$

$$M_{pl} = \frac{99+90+111+81+92+89+102+40+100+106+59+79}{12}$$

$$M_{pl} = \frac{1048}{12} = 87.33$$



### Item 61

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n125}$$

$$M_{pl} = \frac{99+90+111+81+92+89+102+40+100+14+74}{11}$$

$$M_{pl} = \frac{892}{11} = 81.09$$

### Item 62

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n1}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+92+100+89+105+102+40+100+74+106}{16}$$

$$M_{pl} = \frac{1373}{16} = 85,81$$

### Item 63

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n2}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+41+92+100+89+105+102+100+74+106+59+79}{18}$$

$$M_{pl} = \frac{1512}{18} = 84$$

### Item 64

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n3}$$

$$M_{pl} = \frac{99+90+111+100+105+102+14+106}{8}$$

$$M_{pl} = \frac{727}{8} = 90.88$$

### Item 65

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n4}$$

$$M_{pl} = \frac{99+90+111+92+89+105+102+40+59}{9}$$

$$M_{pl} = \frac{787}{9} = 87.44$$

### Item 66

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n5}$$

$$M_{pl} = \frac{99+61+90+111+35+92+100+89+105+38+102+100+74+106+79}{15}$$

$$M_{pl} = \frac{1281}{15} = 85.4$$

### Item 67

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n6}$$

$$M_{pl} = \frac{99+90+111+92+100+100+79}{7}$$

$$M_{pl} = \frac{671}{7} = 95,86$$

### Item 68

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n7}$$

$$M_{pl} = \frac{90+111+92+100}{4}$$

$$M_{pl} = \frac{393}{4} = 98,25$$

### Item 69

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n8}$$

$$M_{pl} = \frac{99+90+88+111+81+100+89+105+38+40+100+74+106}{13}$$



$$M_{pl} = \frac{1121}{13} = 86.23$$

### Item 70

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n9}$$

$$M_{pl} = \frac{99+90+88+111+81+100+89+105+38+40+100+74+106}{13}$$

$$M_{pl} = \frac{1121}{13} = 86.23$$

### Item 71

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n10}$$

$$M_{pl} = \frac{99+111+92+100+100+79}{6}$$

$$M_{pl} = \frac{581}{6} = 96.83$$

### Item 72

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n11}$$

$$M_{pl} = \frac{99+90+88+111+81+100+89+105+38+40+100+74+106}{13}$$

$$M_{pl} = \frac{1121}{13} = 86.23$$

### Item 73

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n12}$$

$$M_{pl} = \frac{99+90+88+111+100+105+102+14+106}{9}$$

$$M_{pl} = \frac{815}{9} = 90.55$$

### Item 74

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n13}$$

$$M_{pl} = \frac{99+61+88+111+81+35+92+100+89+105+102+40+100+74+59+79}{16}$$

$$M_{pl} = \frac{1315}{16} = 82.19$$

### Item 75

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n14}$$

$$M_{pl} = \frac{99+111+92+100+89+105+102+40+100+14}{10}$$

$$M_{pl} = \frac{852}{10} = 85.2$$

### Item 76

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n15}$$

$$M_{pl} = \frac{99+90+88+111+81+92+100+89+105+38+102+100+106}{13}$$

$$M_{pl} = \frac{1201}{13} = 92.38$$

### Item 77

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n16}$$

$$M_{pl} = \frac{90+88+111+81+35+92+100+89+105+102+40+100+74+106}{14}$$

$$M_{pl} = \frac{1213}{14} = 86.64$$

### Item 78

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n17}$$

$$M_{pl} = \frac{90+111+81+89+105+102+100+74+106+59+79}{11}$$



$$M_{pl} = \frac{996}{11} = 90.54$$

### Item 79

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n18}$$

$$M_{pl} = \frac{99+61+90+88+100+105+102+74+59+79}{10}$$

$$M_{pl} = \frac{857}{10} = 85.7$$

### Item 80

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n19}$$

$$M_{pl} = \frac{99+61+92+100+89+105+38+102+100+106}{10}$$

$$M_{pl} = \frac{892}{10} = 89.2$$

### Item 81

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n20}$$

$$M_{pl} = \frac{99+61+90+88+111+81+100+89+105+38+102+100+106}{13}$$

$$M_{pl} = \frac{1170}{13} = 90$$

### Item 82

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n21}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+92+100+89+105+38+102+100+74+106+59+79}{18}$$

$$M_{pl} = \frac{1509}{18} = 83.83$$

### Item 83

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n22}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+38+102+106}{14}$$

$$M_{pl} = \frac{1203}{14} = 85.93$$

### Item 84

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n23}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+41+92+100+89+105+102+100+74+106+59+79}{18}$$

$$M_{pl} = \frac{1512}{18} = 84$$

### Item 85

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n24}$$

$$M_{pl} = \frac{99+61+90+88+111+81+89+105+102+100+74+106+59+79}{14}$$

$$M_{pl} = \frac{1244}{14} = 88.86$$

### Item 86

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n25}$$

$$M_{pl} = \frac{90+111+81+89+105+102+100+14}{8}$$

$$M_{pl} = \frac{692}{8} = 86.5$$

### Item 87

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n26}$$

$$M_{pl} = \frac{99+61+90+88+111+81+89+105+102+40+100+74+106}{16}$$



$$M_{pl} = \frac{1058}{12} = 88.17$$

### Item 88

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n27}$$

$$M_{pl} = \frac{61+90+111+81+89+105+102+100+106+79}{10}$$

$$M_{pl} = \frac{924}{18} = 92.4$$

### Item 89

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n28}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+92+100+89+105+102+40+100+74+106+59}{17}$$

$$M_{pl} = \frac{1432}{17} = 84.23$$

### Item 90

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n29}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+38+100+106+59+79}{16}$$

$$M_{pl} = \frac{1339}{16} = 83.69$$

### Item 91

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n30}$$

$$M_{pl} = \frac{99+61+90+88+111+81+100+105+102+74+106}{11}$$

$$M_{pl} = \frac{1017}{11} = 92.45$$

### Item 92

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n31}$$

$$M_{pl} = \frac{99+90+88+111+92+89+100+79}{8}$$

$$M_{pl} = \frac{748}{8} = 93.5$$

### Item 93

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{32}$$

$$M_{pl} = \frac{99+61+90+88+111+81+35+92+100+89+105+102+40+100+74+106}{16}$$

$$M_{pl} = \frac{1373}{16} = 85.81$$

### Item 94

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n33}$$

$$M_{pl} = \frac{99+88+111+100+105+102+100+14+106+59}{10}$$

$$M_{pl} = \frac{884}{10} = 88.4$$

### Item 95

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n34}$$

$$M_{pl} = \frac{111+92+100+38+102+100+74+106}{8}$$

$$M_{pl} = \frac{723}{8} = 90.37$$

### Item 96

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n35}$$

$$M_{pl} = \frac{99+61+111+35+89+105+102+100+74+106+79}{11}$$



$$M_{pl} = \frac{961}{11} = 87.36$$

### Item 97

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n36}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+105+102+100+74+106+59}{15}$$

$$M_{pl} = \frac{1309}{15} = 87.27$$

### Item 98

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n37}$$

$$M_{pl} = \frac{99+88+111+41+92+100+89+105+102+100+106+79}{12}$$

$$M_{pl} = \frac{1112}{12} = 92.67$$

### Item 99

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n38}$$

$$M_{pl} = \frac{99+61+88+111+81+41+92+100+105+102+100+74+106+59}{14}$$

$$M_{pl} = \frac{1219}{14} = 87.07$$

### Item 100

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n39}$$

$$M_{pl} = \frac{99+90+88+111+81+35+41+92+100+105+102+40+100+74+106+79}{16}$$

$$M_{pl} = \frac{1343}{16} = 83.94$$

### Item 101

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n40}$$

$$M_{pl} = \frac{99+61+88+111+41+92+100+105+102+100+74+106+59}{13}$$

$$M_{pl} = \frac{1138}{13} = 87.54$$

### Item 102

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n41}$$

$$M_{pl} = \frac{99+61+88+111+41+92+100+105+102+100+74+106+59}{13}$$

$$M_{pl} = \frac{1138}{13} = 87.54$$

### Item 103

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n42}$$

$$M_{pl} = \frac{99+111+41+105+102+100+106+59+79}{9}$$

$$M_{pl} = \frac{802}{9} = 89.11$$

### Item 104

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n43}$$

$$M_{pl} = \frac{99+90+88+111+81+35+41+92+100+89+105+38+102+100+74+106+59+79}{18}$$

$$M_{pl} = \frac{1489}{18} = 82.72$$

### Item 105

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n44}$$

$$M_{pl} = \frac{99+88+111+81+35+92+100+89+105+102+40+100+106+59+79}{15}$$



$$M_{pl} = \frac{1286}{15} = 85.73$$

### Item 106

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n45}$$

$$M_{pl} = \frac{61+90+111+81+100+105+102+74+106}{9}$$

$$M_{pl} = \frac{830}{9} = 92.22$$

### Item107

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n46}$$

$$M_{pl} = \frac{99+61+90+80+111+81+35+41+92+100+89+105+38+102+100+106+59+79}{18}$$

$$M_{pl} = \frac{1476}{18} = 82$$

### Item 108

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n47}$$

$$M_{pl} = \frac{99+90+88+111+81+35+92++100+89+105+38+102+100+74+106+79}{16}$$

$$M_{pl} = \frac{1389}{16} = 86.81$$

### Item 109

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n48}$$

$$M_{pl} = \frac{61+90+88+111+81+41+92+100+89+38+102+100+74+106+79}{15}$$

$$M_{pl} = \frac{1252}{15} = 83.47$$

### Item 110

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n49}$$

$$M_{pl} = \frac{88+81+89+105+102+100+74+106+59+79}{10}$$

$$M_{pl} = \frac{883}{10} = 88.3$$

### Item 111

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n50}$$

$$M_{pl} = \frac{99+111+106}{3}$$

$$M_{pl} = \frac{316}{3} = 105.33$$

### Item 112

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n51}$$

$$M_{pl} = \frac{99+90+88+81+41+100+89+105+38+102+100+74+106+79}{14}$$

$$M_{pl} = \frac{1192}{14} = 85,14$$

### Item 113

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n52}$$

$$M_{pl} = \frac{99+61+90+80+111+81+35+41+92+100+89+105+38+102+100+106+59+79}{18}$$

$$M_{pl} = \frac{1476}{18} = 82$$

### Item 114

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n53}$$

$$M_{pl} = \frac{99+88+111+81+35+41+92+100+89+105+38+102+100+59}{14}$$



$$M_{pl} = \frac{1140}{14} = 81.43$$

### Item 115

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n54}$$

$$M_{pl} = \frac{90+111+81+92+105+102+100+14+59+79}{10}$$

$$M_{pl} = \frac{833}{10} = 83.3$$

### Item 116

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n55}$$

$$M_{pl} = \frac{99+61+90+111+81+92+100+105+106+79}{10}$$

$$M_{pl} = \frac{924}{10} = 92.4$$

### Item 117

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n56}$$

$$M_{pl} = \frac{61+90+88+111+81+35+92+100+89+105+38+102+100+106+79}{15}$$

$$M_{pl} = \frac{1277}{15} = 85.13$$

### Item 118

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n57}$$

$$M_{pl} = \frac{88+100+105+102+74+106+59+79}{8}$$

$$M_{pl} = \frac{713}{8} = 89.12$$

### Item 119

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n58}$$

$$M_{pl} = \frac{99+61+90+88+111+81+41+92+100+89+105+38+102+100+74+106+59+79}{18}$$

$$M_{pl} = \frac{1515}{18} = 84.17$$

### Item 120

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n59}$$

$$M_{pl} = \frac{99+90+88+111+81+35+41+92+100+89+105+102+100+74+106+59+79}{17}$$

$$M_{pl} = \frac{1451}{17} = 85.32$$

### Item 121

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n60}$$

$$M_{pl} = \frac{88+111+92+100+89+105+102+100+74+106+59+79}{12}$$

$$M_{pl} = \frac{1105}{12} = 92.08$$

### Item 122

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n61}$$

$$M_{pl} = \frac{99+90+88+111+81+35+41+92+100+89+105+38+102+40+100+74+106+79}{18}$$

$$M_{pl} = \frac{1479}{18} = 81.67$$

### Item 123

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n62}$$



$$M_{pl} = \frac{99+90+88+111+81+35+100+89+105+102+40+100+74+106}{14}$$

$$M_{pl} = \frac{1220}{14} = 87.14$$

### Item 124

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n63}$$

$$M_{pl} = \frac{99+61+88+92+100+89+102+100+106}{9}$$

$$M_{pl} = \frac{837}{9} = 93$$

### Item 125

$$M_{pl} = \frac{\text{total score of students score that true item answer}}{n64}$$

$$M_{pl} = \frac{99+61+90+88+111+81+92+100+89+100+74+106+59+79}{14}$$

$$M_{pl} = \frac{1229}{14} = 87.78$$

#### 4. Calculating of the Formulation $r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$

##### Item 1

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{90.22 - 76.2}{27.7} \sqrt{\frac{0.42}{0.58}}$$

$$r_{pbi} = \frac{14.02}{27.7} \sqrt{0.72}$$

$$r_{pbi} = 0.506 \times 0.85 = 0.430$$

##### Item 2

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{89 - 76.2}{27.7} \sqrt{\frac{0.52}{0.48}}$$

$$r_{pbi} = \frac{12.8}{27.7} \sqrt{1.08}$$

$$r_{pbi} = 0.462 \times 1.04 = 0.480$$

##### Item 3

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{82.94 - 76.2}{27.7} \sqrt{\frac{0.80}{0.2}}$$

$$r_{pbi} = \frac{6.74}{27.7} \sqrt{4}$$

$$r_{pbi} = 0.243 \times 2 = 0.486$$

##### Item 4

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{89.82 - 76.2}{27.7} \sqrt{\frac{0.52}{0.48}}$$

$$r_{pbi} = \frac{13.62}{27.7} \sqrt{1.08}$$

$$r_{pbi} = 0.492 \times 1.04 = 0.512$$

##### Item 5

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{87.61 - 76.2}{27.7} \sqrt{\frac{0.61}{0.39}}$$

$$r_{pbi} = \frac{11.41}{27.7} \sqrt{1.56}$$

$$r_{pbi} = 0.412 \times 1.25 = 0.515$$

##### Item 6

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{90.9 - 76.2}{27.7} \sqrt{\frac{0.47}{0.53}}$$

$$r_{pbi} = \frac{14.7}{27.7} \sqrt{0.89}$$

$$r_{pbi} = 0.530 \times 0.94 = 0.498$$

##### Item 7

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{92.6 - 76.2}{27.7} \sqrt{\frac{0.47}{0.53}}$$

##### Item 8

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{84 - 76.2}{27.7} \sqrt{\frac{0.76}{0.24}}$$



$$r_{pbi} = \frac{16.4}{27.7} \sqrt{0.89}$$

$$r_{pbi} = 0.592 \times 0.94 = 0.556$$

### Item 9

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{84.2 - 76.2}{27.7} \sqrt{\frac{0.71}{0.39}}$$

$$r_{pbi} = \frac{8}{27.7} \sqrt{2.45}$$

$$r_{pbi} = 0.289 \times 1.56 = 0.451$$

### Item 11

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{84.8 - 76.2}{27.7} \sqrt{\frac{0.71}{0.29}}$$

$$r_{pbi} = \frac{8.6}{27.7} \sqrt{2.45}$$

$$r_{pbi} = 0.310 \times 1.56 = 0.484$$

### Item 13

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{90.33 - 76.2}{27.7} \sqrt{\frac{0.42}{0.58}}$$

$$r_{pbi} = \frac{14.13}{27.7} \sqrt{0.72}$$

$$r_{pbi} = 0.510 \times 0.85 = 0.433$$

### Item 15

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{91.75 - 76.2}{27.7} \sqrt{\frac{0.38}{0.62}}$$

$$r_{pbi} = \frac{15.55}{27.7} \sqrt{0.61}$$

$$r_{pbi} = 0.561 \times 0.78 = 0.437$$

### Item 17

$$r_{pbi} = \frac{7.8}{27.7} \sqrt{3.16}$$

$$r_{pbi} = 0.281 \times 1.78 = 0.501$$

### Item 10

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{84.36 - 76.2}{27.7} \sqrt{\frac{0.66}{0.34}}$$

$$r_{pbi} = \frac{8.16}{27.7} \sqrt{1.94}$$

$$r_{pbi} = 0.294 \times 1.39 = 0.411$$

### Item 12

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{85.6 - 76.2}{27.7} \sqrt{\frac{0.71}{0.29}}$$

$$r_{pbi} = \frac{9.4}{27.7} \sqrt{2.45}$$

$$r_{pbi} = 0.339 \times 1.56 = 0.529$$

### Item 14

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{89 - 76.2}{27.7} \sqrt{\frac{0.42}{0.58}}$$

$$r_{pbi} = \frac{12.8}{27.7} \sqrt{0.72}$$

$$r_{pbi} = 0.462 \times 0.85 = 0.393$$

### Item 16

$$r_{pbi} = \frac{M_P - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{91.55 - 76.2}{27.7} \sqrt{\frac{0.42}{0.58}}$$

$$r_{pbi} = \frac{15.35}{27.7} \sqrt{0.72}$$

$$r_{pbi} = 0.554 \times 0.85 = 0.471$$

### Item 18

$$r_{pbi} = \frac{9.73}{27.7} \sqrt{1.94}$$

$$r_{pbi} = 0.351 \times 1.39 = 0.489$$

### Item 85

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{88.86 - 76.2}{27.7} \sqrt{\frac{0.66}{0.34}}$$

$$r_{pbi} = \frac{12.66}{27.7} \sqrt{1.94}$$

$$r_{pbi} = 0.457 \times 1.39 = 0.635$$

### Item 87

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{88.17 - 76.2}{27.7} \sqrt{\frac{0.57}{0.43}}$$

$$r_{pbi} = \frac{11.97}{27.7} \sqrt{1.33}$$

$$r_{pbi} = 0.432 \times 1.15 = 0.496$$

### Item 89

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{84.23 - 76.2}{27.7} \sqrt{\frac{0.80}{0.2}}$$

$$r_{pbi} = \frac{8.03}{27.7} \sqrt{0.4}$$

$$r_{pbi} = 0.290 \times 2 = 0.58$$

### Item 91

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{92.45 - 76.2}{27.7} \sqrt{\frac{0.52}{0.48}}$$

$$r_{pbi} = \frac{16.25}{27.7} \sqrt{1.08}$$

$$r_{pbi} = 0.587 \times 1.04 = 0.610$$

Item 92

$$r_{pbi} = \frac{7.8}{27.7} \sqrt{5.67}$$

$$r_{pbi} = 0.281 \times 2.38 = 0.669$$

### Item 86

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{86.5 - 76.2}{27.7} \sqrt{\frac{0.38}{0.62}}$$

$$r_{pbi} = \frac{10.3}{27.7} \sqrt{0.61}$$

$$r_{pbi} = 0.372 \times 0.78 = 0.290$$

### Item 88

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{92.4 - 76.2}{27.7} \sqrt{\frac{0.47}{0.53}}$$

$$r_{pbi} = \frac{16.2}{27.7} \sqrt{0.89}$$

$$r_{pbi} = 0.585 \times 0.94 = 0.549$$

### Item 90

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{83.69 - 76.2}{27.7} \sqrt{\frac{0.76}{0.24}}$$

$$r_{pbi} = \frac{7.49}{27.7} \sqrt{3.17}$$

$$r_{pbi} = 0.270 \times 1.78 = 0.480$$

### Item 92

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{93.5 - 76.2}{27.7} \sqrt{\frac{0.38}{0.62}}$$

$$r_{pbi} = \frac{17.3}{27.7} \sqrt{0.61}$$

$$r_{pbi} = 0.624 \times 0.78 = 0.487$$

Item 94



## Appendix 5

**Table Validity of Pre-Test**

NO	M <sub>p</sub>	M <sub>t</sub>	SD <sub>t</sub>	P	Q	$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$	r <sub>t</sub> on 5% significant	Interpretation
1	90.22	76.2	27.7	0.42	0.58	0.430	0.396	Valid
2	89	76.2	27.7	0.52	0.48	0.480	0.396	Valid
3	82.94	76.2	27.7	0.80	0.2	0.486	0.396	Valid
4	89.82	76.2	27.7	0.52	0.48	0.512	0.396	Valid
5	87.61	76.2	27.7	0.61	0.39	0.515	0.396	Valid
6	90.9	76.2	27.7	0.47	0.53	0.498	0.396	Valid
7	92.6	76.2	27.7	0.47	0.53	0.556	0.396	Valid
8	84	76.2	27.7	0.76	0.24	0.501	0.396	Valid
9	84.2	76.2	27.7	0.71	0.29	0.431	0.396	Valid
10	84.36	76.2	27.7	0.66	0.34	0.411	0.396	Valid
11	84.8	76.2	27.7	0.71	0.39	0.484	0.396	Valid
12	85.6	76.2	27.7	0.71	0.39	0.529	0.396	Valid
13	90.33	76.2	27.7	0.42	0.58	0.433	0.396	Valid
14	89	76.2	27.7	0.42	0.58	0.393	0.396	Invalid
15	91.75	76.2	27.7	0.38	0.62	0.437	0.396	Valid
16	91.55	76.2	27.7	0.42	0.58	0.471	0.396	Valid
17	84.5	76.2	27.7	0.76	0.24	0.410	0.396	Valid
18	87.6	76.2	27.7	0.47	0.53	0.386	0.396	Invalid
19	83.25	76.2	27.7	0.76	0.24	0.452	0.396	Valid
20	91.67	76.2	27.7	0.71	0.29	0.872	0.396	Valid
21	83	76.2	27.7	0.85	0.1	0.583	0.396	Valid
22	87.54	76.2	27.7	0.52	0.48	0.425	0.396	Valid
23	87.2	76.2	27.7	0.47	0.53	0.373	0.396	Invalid
24	84.75	76.2	27.7	0.66	0.34	0.429	0.396	Valid
25	84.12	76.2	27.7	0.80	0.2	0.572	0.396	Valid
26	83.08	76.2	27.7	0.57	0.43	0.285	0.396	Invalid
27	86.44	76.2	27.7	0.76	0.24	0.659	0.396	Valid
28	81.22	76.2	27.7	0.85	0.15	0.431	0.396	Valid
29	83	76.2	27.7	0.76	0.24	0.436	0.396	Valid
30	81.84	76.2	27.7	0.90	0.1	0.612	0.396	Valid



31	84.53	76.2	27.7	0.71	0.29	0.469	0.396	Valid
32	85.87	76.2	27.7	0.71	0.29	0.544	0.396	Valid
33	81.58	76.2	27.7	0.90	0.1	0.582	0.396	Valid
34	85.5	76.2	27.7	0.66	0.3	0.467	0.396	Valid
35	78.95	76.2	27.7	0.90	0.1	0.298	0.396	Invalid
36	84.62	76.2	27.7	0.76	0.24	0.541	0.396	Valid
37	85.6	76.2	27.7	0.71	0.29	0.529	0.396	Valid
38	85.93	76.2	27.7	0.66	0.34	0.488	0.396	Valid
39	88.08	76.2	27.7	0.57	0.43	0.493	0.396	Valid
40	85.6	76.2	27.7	0.47	0.53	0.318	0.396	Invalid
41	85.2	76.2	27.7	0.71	0.29	0.507	0.396	Valid
42	92.14	76.2	27.7	0.33	0.67	0.401	0.396	Valid
43	93	76.2	27.7	0.57	0.43	0.670	0.396	Valid
44	83.5	76.2	27.7	0.28	0.72	0.163	0.396	Invalid
45	94.5	76.2	27.7	0.28	0.72	0.409	0.396	Valid
46	83.11	76.2	27.7	0.85	0.15	0.593	0.396	Valid
47	90.12	76.2	27.7	0.38	0.62	0.391	0.396	Invalid
48	87.2	76.2	27.7	0.47	0.53	0.373	0.396	Invalid
49	88.27	76.2	27.7	0.52	0.48	0.453	0.396	Valid
50	89.77	76.2	27.7	0.61	0.39	0.612	0.396	Valid
51	88.54	76.2	27.7	0.52	0.48	0.463	0.396	Valid
52	88.91	76.2	27.7	0.52	0.48	0.477	0.396	Valid
53	89.61	76.2	27.7	0.61	0.39	0.605	0.396	Valid
54	88.67	76.2	27.7	0.57	0.43	0.517	0.396	Valid
55	86.58	76.2	27.7	0.57	0.43	0.431	0.396	Valid
56	90	76.2	27.7	0.52	0.8	0.518	0.396	Valid
57	85.23	76.2	27.7	0.61	0.39	0.406	0.396	Valid
58	78.95	76.2	27.7	0.90	0.1	0.298	0.396	Invalid
59	87.73	76.2	27.7	0.71	0.29	0.649	0.396	Valid
60	87.33	76.2	27.7	0.57	0.43	0.461	0.396	Valid
61	81.09	76.2	27.7	0.52	0.48	0.183	0.396	Valid
62	85.81	76.2	27.7	0.76	0.24	0.617	0.396	Valid
63	84	76.2	27.7	0.85	0.15	0.669	0.396	Valid
64	90.87	76.2	27.7	0.38	0.62	0.413	0.396	Valid
65	87.44	76.2	27.7	0.42	0.58	0.345	0.396	Invalid
66	85.4	76.2	27.7	0.71	0.29	0.518	0.396	Valid
67	95.86	76.2	27.7	0.33	0.67	0.497	0.396	Valid
68	98.25	76.2	27.7	0.19	0.79	0.382	0.396	Invalid
69	86.23	76.2	27.7	0.61	0.39	0.452	0.396	Valid
70	86.23	76.2	27.7	0.61	0.9	0.452	0.396	Valid
71	96.83	76.2	27.7	0.28	0.72	0.461	0.396	Valid
72	86.83	76.2	27.7	0.61	0.39	0.452	0.396	Valid
73	90.55	76.2	27.7	0.42	0.58	0.440	0.396	Valid
74	82.19	76.2	27.7	0.76	0.24	0.384	0.396	Invalid



75	85.2	76.2	27.7	0.47	0.53	0.305	0.396	Invalid
76	92.38	76.2	27.7	0.61	0.39	0.73	0.396	Valid
77	86.64	76.2	27.7	0.66	0.24	0.524	0.396	Valid
78	90.54	76.2	27.7	0.52	0.48	0.539	0.396	Valid
79	85.7	76.2	27.7	0.47	0.53	0.322	0.396	Invalid
80	89.2	76.2	27.7	0.47	0.53	0.440	0.396	Valid
81	90	76.2	27.7	0.61	0.39	0.622	0.396	Valid
82	83.83	76.2	27.7	0.85	0.15	0.654	0.396	Valid
83	85.93	76.2	27.7	0.66	0.34	0.489	0.396	Valid
84	84	76.2	27.7	0.85	0.15	0.669	0.396	Valid
85	88.86	76.2	27.7	0.66	0.34	0.635	0.396	Valid
86	86.5	76.2	27.7	0.38	0.62	0.290	0.396	Invalid
87	88.17	76.2	27.7	0.57	0.43	0.496	0.396	Valid
88	92.4	76.2	27.7	0.47	0.53	0.549	0.396	Valid
89	84.23	76.2	27.7	0.80	0.2	0.58	0.396	Valid
90	83.69	76.2	27.7	0.76	0.24	0.480	0.396	Valid
91	92.45	76.2	27.7	0.52	0.48	0.610	0.396	Valid
92	93.5	76.2	27.7	0.38	0.62	0.487	0.396	Valid
93	85.81	76.2	27.7	0.76	0.24	0.618	0.396	Valid
94	88.4	76.2	27.7	0.47	0.53	0.414	0.396	Valid
95	90.37	76.2	27.7	0.38	0.62	0.399	0.396	Valid
96	87.36	76.2	27.7	0.52	0.48	0.419	0.396	Valid
97	87.27	76.2	27.7	0.71	0.29	0.530	0.396	Valid
98	92.67	76.2	27.7	0.57	0.42	0.683	0.396	Valid
99	87.07	76.2	27.7	0.66	0.34	0.544	0.396	Valid
100	83.94	76.2	27.7	0.76	0.24	0.499	0.396	Valid
101	87.54	76.2	27.7	0.61	0.39	0.512	0.396	Valid
102	87.54	76.2	27.7	0.61	0.39	0.512	0.396	Valid
103	89.11	76.2	27.7	0.42	0.58	0.397	0.396	Valid
104	82.72	76.2	27.7	0.85	0.15	0.560	0.396	Valid
105	85.73	76.2	27.7	0.71	0.29	0.537	0.396	Valid
106	92.22	76.2	27.7	0.42	0.58	0.492	0.396	Valid
107	82	76.2	27.7	0.85	0.15	0.450	0.396	Valid
108	86.81	76.2	27.7	0.76	0.24	0.682	0.396	Valid
109	83.47	76.2	27.7	0.71	0.29	0.419	0.396	Valid
110	88.3	76.2	27.7	0.47	0.53	0.411	0.396	Valid
111	105.33	76.2	27.7	0.14	0.86	0.420	0.396	Valid
112	85.14	76.2	27.7	0.66	0.34	0.449	0.396	Valid
113	82	76.2	27.7	0.85	0.15	0.450	0.396	Valid

114	81.43	76.2	27.7	0.66	0.34	0.263	0.396	Invalid
115	83.3	76.2	27.7	0.47	0.53	0.241	0.396	Invalid
116	92.4	76.2	27.7	0.47	0.53	0.550	0.396	Valid
117	85.13	76.2	27.7	0.71	0.29	0.502	0.396	Valid
118	89.12	76.2	27.7	0.38	0.62	0.364	0.396	Invalid
119	84.17	76.2	27.7	0.85	0.15	0.685	0.396	Valid
120	85.32	76.2	27.7	0.80	0.2	0.66	0.396	Valid
121	92.08	76.2	27.7	0.57	0.43	0.659	0.396	Valid
122	81.67	76.2	27.7	0.85	0.15	0.476	0.396	Valid
123	87.14	76.2	27.7	0.66	0.34	0.550	0.396	Valid
124	93	76.2	27.7	0.42	0.58	0.518	0.396	Valid
125	87.78	76.2	27.7	0.66	0.34	0.581	0.396	Valid

From the table above, it can be seen that 18 items was invalid and 107 items was valid.

So, the researcher took 100 items for Vocabulary test.



## Appendix 6

### Vocabulary Test

Name :

Room :

#### Instruction :

5. Write your name and your room on the top right.
6. Read question carefully before you answer.
7. Choose one the best answer.
8. Pray before doing the test!

#### B. Answer the question bellow by giving cross (X) in the correct answer!

1. Which animals can fly..

- |             |            |
|-------------|------------|
| a. Flamingo | c. Cheetah |
| b. Lizard   | d. Eangle  |

2. What is the food of dolphin?

- |           |            |
|-----------|------------|
| a. Fish   | c. Snail   |
| b. Insect | d. Octopus |

3. Animals that used their long trunks to put food and water in their mounths is..




4. Beetle are an insect that live anywhere from 2 days to as long as 11 months. He has small body and can flying. The underlined word in Bahasa Indonesia is..

- |              |                 |
|--------------|-----------------|
| a. Kupu-kupu | c. Burung gagak |
| b. Serangga  | d. Kumbang      |



The picture behind in English is..

- |           |             |
|-----------|-------------|
| a. Turtle | c. Flamingo |
| b. Snail  | d. Snake    |

6. Grass is the favorite food of deer. Grass in Bahasa Indonesia is..
- a. Wortel    c. Rumput  
b. Kacang    d. Sayur
7. Ants are small insects. Some ants have a stinger. stinger in Bahasa Indonesia is..
- c. Alat penyengat                                  c. Alat merobek  
d. Alat penghisap                                  d. Alat mandi
8. Cat is a ... animal
- a. Tame    c. Dangerous  
b. Wild    d. Cattle
9. What do you call cockroach in Bahasa Indonesia..
- c. Badak Jawa    c. Jerapah  
d. Kecoa    d. Zebra
10. Rabbit have a long ears, which can be more than 10 cm. The underlined word in Bahasa Indonesia is..
- a. Telinga yang panjang                                  c. Pendengaran yang jelas  
b. Hidung yang pese                                      d. Pendengaran yang tajam
11. What we call Dragonfly in Bahasa Indonesia?
- c. Gorilla    c. Kumbang  
d. Capung    d. Cicak
12.  The name of animals behind is..
- c. Ant    c. Turtle  
d. Dog    d. Snail
13. What is the food of owls?
- a. Mouse    c. Insect  
b. Meat    d. Fish
14. Bear is a wild animal. The underlined word in Bahasa Indonesia is..
- c. Beruang    c. Macan tutul  
d. Katak    d. Gorilla
15. Rabbit has ... foot
- a. 2 foot    c. 6 Foot







24. What is the food of that animal?

- a. Grass
- b. Bamboo
- c. Leaves
- d. Meat

25. The characteristic of cow is can produce..

- c. Produce milk
- d. Produce honey
- c. Produce sauce
- d. Produce sugar

26. How many legs does bird have?

- a. One
- b. Two
- c. three
- d. four

27. A ..... has beautiful wings

- a. Chicken
- b. Butterfly
- c. Kangaroo
- d. Ant

28. The characteristic of chicken can produce..

- a. Produce egg
- b. Produce bread
- c. Produce sauce
- d. Produce chili

29. ... is Herbivore animal

- a. Rabbit
- b. Cat
- c. Dog
- d. Bear

30. What does giraffe food?

- a. Fruit
- b. Ant
- c. Insect
- d. Butterfly

31. Octopus in indonesia means..

- a. Gurita
- b. Laba-laba
- c. Lalat
- d. Semut

32. What is the characteristic of bird?

- c. Has wings
- d. Has 4 foot
- c. can climb
- d. can dancing

33. Frog is ... . it can be live on land and in water



- a. Aves
- b. Mamals
- c. Amphibians
- d. Reptile

34. What is the color of zebra?

- a. White and Black
- b. Blue and red
- c. Red and white
- d. Purple and Black

35. The monkey often eats banana and peanuts. Banana and peanut in Indonesia we call?

- a. Pisang dan Kacang
- b. Kacang dan Buah
- c. Buah dan sayur
- d. Apel dan Anggur



36. What is the food of that animals..

- a. Grass
- b. Meat
- c. Vegetable
- d. Table

37. Animals has long body, not have foot and lives in forest and dangerous is..



a.



c.



b.



d.

38. .... is a herbivors

- a. Giraffe
- b. Watermelon
- c. Tiger
- d. Bear

39. Merayap in English...

- c. Run
- d. Hop
- c. Roar
- d. Creep



40. What is the food of flamingo..

- a. Shrimp
- c. Juice

b. Water

d. Grape

41. Giraffe has two small horns on its head. The underlined words in Bahasa Indonesia is..

- a. Memiliki 2 tanduk kecil di kepala nya
- b. Memiliki 3 tanduk kecil di kepala nya
- c. Memiliki 2 tanduk panjang di kepala nya
- d. Memiliki 2 tanduk kecil di hidung nya

42. What is the characteristic of rabbit?

- a. Can run
- c. Can jump
- e. Can fly
- d. Can creep

43. .... is a wild animals

- a. Monkey
- c. Fly
- b. Cat
- d. Snake

44. Fox is an ...

- a. Mamals
- c. Omnivore
- b. Reptile
- d. Amphibians



45. The food of crab is a small fish, alga, worm and mushrooms. The underlined word in Bahasa Indonesia is..

- a. Ikan, alga, cacing, jamur
- b. Ikan kecil, cacing, jamur
- c. Ikan, cacing, jamur
- d. Ikan kecil, ganggang, cacing dan jamur

46. The body of the crab is protected by a strong shell.inBahasa Indonesia shell is...

- a. Bulu
- c. Hibernate
- b. Cangkrang
- d. Stay



47. what is the name of that animals?

- a. Octopus
- c. Fox
- b. Lobster
- d. Crab





48. in English is...

- c. Lettuce
- d. Peanut
- c. Pumpkin
- d. Tomato



49. what is the food of that animals..

- a. Zooplankton
- b. Fish
- c. Worm
- d. Insect

50. The lizard like eat insect and can ...

- a. Can creep
- b. Can run
- c. Can sing
- d. Can dance

51. Bears have thick fur coats to protect them from the cold. The underlined word in Indonesia means..

- a. Bulu yang tebal
- b. Kaki yang panjang
- c. Mata yang panjang
- d. Rambut yang tebal

52. Leopard in Bahasa Indonesia is..

- c. Macan Tutul
- d. Domba
- c. Semut
- d. Penyu



53. What is the food of that animals..

- c. Mouse
- d. Buffalo
- c. Goat
- d. Bird



54. In English we call..

- c. Peanut
- d. Milk
- c. Chili
- d. Carrot

55. Worm in Bahasa Indonesia is...

- c. Daging
- d. Cacing
- c. Kacang
- d. Serangga

56. Cat likes eating fish and special snacks for cats. Fish in Bahasa Indonesia is..

- c. Ikan hiu
- d. Ikan
- c. Tuna
- d. Tulang



57. What is the food of animals behind is

- a. Banana
- b. Watermelon
- c. Duku
- d. Peanut

58. The characteristic of kangaroo is has pocket. in Bahasa Indonesia pocket means..

- c. Bulu
- d. Sayap
- c. Uang
- d. Kantong

59. Mengaum in English is...

- c. Migrate
- d. Rove
- c. Roar
- d. Slither

60. What do we call mencakar in English....

- c. Hibernate
- d. Scratch
- c. Purr
- d. Catch

61. What is the characteristic of rabbit?

- a. Can run
- b. Can fly
- c. Can jump
- d. Can creep



62. What is the name of that animals...

- c. Koala
- d. Monkey
- c. Orangutan
- d. Roar





63. What is the food of that animals?

- a. Leaf
- b. Pumpkin
- c. Peanut
- d. Carrot



64. What does shark food?

- a. Fish
- b. Noodle
- c. Insect
- d. Baby



65. What is the name of that animal?

- a. Squid
- b. Insect
- c. Paper
- d. Dolphin

66. Elephant is the ... animal

- a. Mamalia
- b. Herbivore
- c. Bird
- d. Reptile

67. Lion, tiger, Crocodile and dog are included in..

- a. Carnivore
- b. Reptile
- c. Mamalia
- d. Bird

68. Frog is the ... animal

- a. Amfibi
- b. Carnivore
- c. Mamalia
- d. Omnivore

69. Camel in Bahasa Indonesia is..

- a. Unta
- b. Burung hantu
- c. Owl
- d. Unggas

70. They are pet animals..

- a. Cat, rabbit and lion
- b. Fish, Zebra and Tiger
- c. Cat, rabbit and chicken
- d. Rabbit, ant and frog

71. Chameleon, and snake are included in..
- |              |             |
|--------------|-------------|
| a. Reptile   | c. Mamalia  |
| b. Carnivore | d. Omnivore |
72. Which animals can swim?
- |             |            |
|-------------|------------|
| a. Elephant | c. Dolphin |
| b. Eagle    | d. Tiger   |
73. Elephant, goat and horse eat..
- |          |          |
|----------|----------|
| a. Grass | c. Water |
| b. Bread | d. Apple |
74. Menggantung in English is...
- |         |         |
|---------|---------|
| c. Hang | c. Purr |
| d. Bark | d. Fly  |
75. What is the characteristic of lizard?
- |                                  |                           |
|----------------------------------|---------------------------|
| c. Catch insects with the tongue | c. Hung on the wood       |
| d. Jumping on the tree           | d. Eat food by using hand |
76. Pigeon in Bahasa Indonesia is...
- |            |                  |
|------------|------------------|
| c. Gagak   | c. Beo           |
| d. Merpati | d. Burung gereja |
77. .... the king of the Forest
- |          |         |
|----------|---------|
| a. Ant   | c. Cat  |
| b. Tiger | d. Frog |
78. The .... helps farmer to plow the rice fields
- |          |            |
|----------|------------|
| a. Sheep | c. Buffalo |
| b. Cow   | d. Goat    |
79. Elephant has one long nose. long nose Indonesia means..
- |                        |                        |
|------------------------|------------------------|
| c. Mata yang panjang   | c. Badan yang panjang  |
| d. Rambut yang panjang | d. Hidung yang Panjang |
80. Crocodile has a sharp teeth and it is very dangerous. the underlined word in Bahasa Indonesia is..
- |                    |                      |
|--------------------|----------------------|
| a. Gigi yang kuat  | c. Gigi yang panjang |
| b. Gigi yang tajam | d. Gigi yang besar   |



81. Weasel in Bahasa Indonesia is..

- a. Spider
- b. Musang
- c. Cheetah
- d. Crocodile

82. Fruit in Bahasa Indonesia we call ..

- a. Buah
- b. Sayur-sayuran
- c. Bayam
- d. Nasi

83. A otter likes..

- a. Carrot
- b. Warm
- c. Candy
- d. Chili

84. It is a tame animal. it smart and funny. It lives in the sea or the circus. it eats fish. What is the name of that animals?

- a. Dolphin
- b. Bird
- c. Bear
- d. Cat

85. Monkeys like to ... on trees

- a. Climb
- b. Walk
- c. Run
- d. Dance

86. Frog can be live on land and in water The underlined words in Bahasa Indonesia is..

- a. Dapat hidup di darat dan di air
- b. Dapat hidup di 2 tempat
- c. Dapat hidup di darat saja
- d. Semua benar

87. Catfish in Bahasa Indonesia is..

- c. Kambing
- d. Ikan lele
- c. Kucing
- d. Semut

88. Porcupine in Bahasa Indonesia is..

- a. Udang
- b. Landak
- c. Insect
- d. Fruit



89. Look at this animal!

it has beautiful..

- c. Body
- d. Teeth
- c. Feather
- d. Hair

90. The characteristic of rabbit like carrot and..

- a. Run fast
- b. Laugh
- c. Sad
- d. Fly

91. What food does camel likes?

- a. Camel likes meat
- b. Camel likes Grass
- c. Camel likes Honey
- d. Camel likes bee

92. What does grain means in Bahasa Indonesia..

- c. Biji-bijian
- d. Daging
- c. Buah-buahan
- d. Sayuran

93. Plant in Indonesia is....

- c. Daun
- d. Tumbuhan
- c. Ranting
- d. Pohon

94. Monkey likes banana. In Indonesia banana means..

- c. Kurma
- d. Pisang
- c. Anggur
- d. Pepaya

95. The duck food is..

- a. Grains
- b. Worm
- c. Insect
- d. Grass

96. What is the meaning of peanut in Bahasa Indonesia?

- c. Kacang
- d. Jagung
- c. Cabai
- d. Kelapa

97. The smallest animal and like sweet food is..

- a. Ant
- b. Elephant
- c. Monkey
- d. Gorilla

98. Frog and lizard like eat..

- a. Insect
- b. Banana
- c. Meat
- d. Fruit

99. Bee has 2 colored stripes(black and yellow) has 2 wings and small size. What is that animal in Bahasa Indonesia?



- c. Bee
- d. Pigeon

- c. Insect
- d. Bite



100. What is the food of that animals?

- a. Insect
- b. Chicken
- c. Kangaroo
- d. Duck

Padangsidempuan, 8 Desember 2020

Validator

Rosmawar S.Pd

NIP. 19730202 200502 2 001

### Appendix 7

#### KEY ANSWER

i.	D	21.C	41. A	61. C	81. B
ii.	A	22. A	42. C	62. A	82. A
iii.	A	23. A	43. D	63. A	83. B
iv.	D	24. B	44. C	64. A	84. A
v.	A	25. A	45. D	65. D	85. A
vi.	C	26. B	46. B	66. B	86. A
vii.	A	27. B	47. B	67. A	87. B

viii.	A	28. A	48. B	68. A	88. B
ix.	B	29. A	49. A	69. A	89. C
x.	A	30. A	50. A	70. C	90. A
xi.	B	31. A	51. A	71. A	91. B
xii.	D	32. A	52. A	72. C	92. B
xiii.	A	33. C	53. A	73. A	93. B
xiv.	A	34. A	54. D	74. A	94. B
xv.	A	35. A	55. B	75. A	95. B
xvi.	B	36. B	56. B	76. B	96. A
xvii.	B	37. A	57. A	77. B	97. A
xviii.	D	38. A	58. D	78. C	98. A
xix.	A	39. D	59. C	79. D	99. A
xx.	A	40. A	60. D	80. B	100. A



# APPENDIX 8

## Speaking Test

### Instruction :

Look at the picture bellow :

1. Choose one of the topics bellow.
2. Please, describe one animals.
3. Practice/ present in front of your class one by one in 3 minutes from every students.

### B. Topics :

a. Elephant



c. Tiger



b. Crocodile



d. Monkey



---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

Padangsidempuan, 8 Desember 2020

Validator

Rosmawar S.Pd  
19730202 200502 2 001

NIP.

## Appendix 10

### Questionnaire Result of Speaking Mastery

No	Initial	Pronounciation	Intonation	Fluency	Accuracy	Score
1	Aul P	3	3	3	4	$13/20 \times 100 = 65$
2	Ans M	3	3	3	3	$12/20 \times 100 = 60$
3	Ajen D	3	3	4	3	$13/20 \times 100 = 65$
4	Aml S H	3	3	3	3	$12/20 \times 100 = 60$
5	Far F	4	4	4	4	$16/20 \times 100 = 80$
6	Fir S T	4	3	3	4	$14/20 \times 100 = 70$
7	Hik A L	4	4	3	3	$14/20 \times 100 = 70$
8	Rid G	3	3	4	4	$14/20 \times 100 = 70$
9	Ren M	4	4	4	4	$16/20 \times 100 = 80$
10	Riz F L	4	4	4	3	$15/20 \times 100 = 75$
11	Rek S H	3	3	4	3	$13/20 \times 100 = 65$
12	Riz F N	4	3	3	4	$14/20 \times 100 = 70$
13	Nur S	4	3	3	3	$13/20 \times 100 = 65$
14	Nur H D	4	4	4	3	$15/20 \times 100 = 75$
15	Nir S H	4	4	3	3	$14/20 \times 100 = 70$
16	Nin T S	4	4	3	3	$14/20 \times 100 = 70$
17	M. F S	4	4	4	3	$15/20 \times 100 = 75$
18	M H	3	4	4	3	$14/20 \times 100 = 70$
19	Syla M B	4	4	4	3	$15/20 \times 100 = 75$
20	Mif A W	4	3	3	3	$13/20 \times 100 = 65$
21	Sur N	3	4	4	4	$14/20 \times 100 = 70$
22	W A	3	3	3	4	$13/20 \times 100 = 65$



## APPENDIX 11

### THE RESULT OF STUDENTS VOCABULARY MASTERY

No	Name	Students Score
1	AP	65
2	AM	65
3	AND	68
4	ASH	73
5	FF	84
6	FSL	75
7	HAL	72
8	RG	70
9	RM	80
10	RFL	74
11	RSH	69
12	RFN	73
13	NS	77
14	NHD	77
15	NSH	69
16	NTS	76
17	MFS	73
18	MH	69
19	SMB	73
20	MAW	65
21	SN	74
22	WA	75
<b>Total</b>		1596

## APPENDIX12

## THE RESULT OF STUDENTS SPEAKING MASTERY

No	Name	Students Score
1	AP	65
2	AM	60
3	AND	65
4	ASH	60
5	FF	80
6	FSL	70
7	HAL	70
8	RG	70
9	RM	80
10	RFL	75
11	RSH	65
12	RFN	70
13	NS	65
14	NHD	75
15	NSH	70
16	NTS	70
17	MFS	75
18	MH	70
19	SMB	75
20	MAW	65
21	SN	70
22	WA	65
<b>Total</b>		<b>1530</b>

## Appendix 13

### VARIABLE X (VOCABULARY MASTERY)

1. Maximal and minimum core were gotten by setting the variable score from low score to high score.

<b>65</b>	<b>65</b>	<b>68</b>	<b>69</b>	<b>69</b>
<b>69</b>	<b>70</b>	<b>72</b>	<b>73</b>	<b>73</b>
<b>73</b>	<b>73</b>	<b>74</b>	<b>75</b>	<b>75</b>
<b>76</b>	<b>74</b>	<b>77</b>	<b>77</b>	<b>80</b>
<b>81</b>	<b>84</b>			

2. High score = 84

3. Low score = 65

4. Range

$$R = \text{High score} - \text{low score}$$

$$= 84 - 65$$

$$= 19$$

5. The total of the class (BK) =  $1 + 3,3 \log n$   
=  $1 + 3,3 \log (22)$

$$= 1 + 3,3 \cdot 1,342$$

$$= 1 + 4,42$$

$$= 5,42$$

$$= 5$$

6. Interval class (i)

$$I = \frac{\text{range}}{\text{many class}} = \frac{19}{5} = 3,8$$

$$I = 4$$



In this research the researcher use 4 as interval class .

7. Mean score

No	Class Interval	F	X	FX	F <sub>kb</sub>	F <sub>ka</sub>
1	65 – 68	3	66.5	199,5	22= N	3
2	69 - 72	6	70,5	423	19	9
3	73 - 76	8	74,5	596	13	17
4	77 - 80	3	78,5	235,5	5	20
5	81- 84	2	82,5	165	2	22=N
<b>Total</b>		22		1,619		

$$\begin{aligned} \text{Mean (X)} &= \frac{FX}{X} \\ &= \frac{1,619}{22} = 73,60 \end{aligned}$$

8. Median score

No	Class Interval	F	X	FX	F <sub>kb</sub>	F <sub>ka</sub>
1	65 – 68	3	66.5	199,5	22= N	3
2	69 - 72	6	70,5	423	19	9
3	73 - 76	8	74,5	596	13	17
4	77 - 80	3	78,5	235,5	5	20
5	81- 84	2	82,5	165	2	22=N
<b>Total</b>			22	1619		

$$\begin{aligned} \text{Me} &= b + p \left( \frac{\frac{1}{2}n - F}{f} \right) \\ &= 72,5 + 4 \left( \frac{\frac{1}{2}22 - 9}{8} \right) \\ &= 72,5 + 4 \left( \frac{2}{8} \right) \\ &= 72,5 + 4 (0,25) \\ &= 72,5 + 1 \\ &= 73,5 \end{aligned}$$

## 9. Modus

No	Class Interval	F	X	FX	F <sub>kb</sub>	F <sub>ka</sub>
1	65 - 68	3	66,5	199,5	22= N	3
2	69 - 72	6	70,5	423	19	9
3	73 - 76	8	74,5	596	13	17
4	77 - 80	3	78,5	235,5	5	20
5	81 - 84	2	82,5	165	2	22=N
<b>Total</b>		22		1619		

$$\begin{aligned} Mo &= b + p \left( \frac{b_1}{b_1 + b_2} \right) \\ &= 72,5 + 4 \left( \frac{3}{3+6} \right) \\ &= 72,5 + 4 \left( \frac{3}{9} \right) \\ &= 72,5 + 4 (0,33) \\ &= 72,5 + 1,32 \\ &= 73,82 \end{aligned}$$

## Appendix 14

### VARIABEL Y (SPEAKING MASTERY)

1. Maximal and minimum core were gotten by setting the variabel score from low score to high score .

<b>60</b>	<b>60</b>	<b>65</b>	<b>65</b>	<b>65</b>
<b>65</b>	<b>65</b>	<b>65</b>	<b>70</b>	<b>70</b>
<b>70</b>	<b>70</b>	<b>70</b>	<b>70</b>	<b>70</b>
<b>70</b>	<b>75</b>	<b>75</b>	<b>75</b>	<b>75</b>
<b>80</b>	<b>80</b>			

2. High score = 80
3. Low score = 60
4. Range = high score – low score  
= 80 - 60  
  
= 20
5. The total of the class  $BK = 1 + 3,3 \log n$   
= 1 + 3,3 log 22  
  
= 1 + 3,3 . 1,342  
  
= 1 + 4,4286  
  
= 5, 4286  
  
= 5

6. Interval (i)  
$$I = \frac{range}{many\ class}$$
  
$$= \frac{20}{5} = 4$$



7. Mean score

No	Class interval	F	X	Fx	F <sub>kb</sub>	F <sub>ka</sub>
1	60 - 63	2	61,5	123	22= N	2
2	64 - 67	6	65,5	393	20	8
3	68 - 72	8	70,5	564	14	16
4	73 - 76	4	74,5	298	6	20
5	77 - 80	2	78,5	157	2	22=N
<b>Total</b>		22		1535		

$$\begin{aligned} \text{Mean (x)} &= \frac{Fx}{F} \\ &= \frac{1535}{22} = 69,77 \end{aligned}$$

8. Median

No	Class interval	F	X	Fx	F <sub>kb</sub>	F <sub>ka</sub>
1	60 - 63	2	61,5	123	22= N	2
2	64 - 67	6	65,5	393	20	8
3	68 - 72	8	70,5	564	14	16
4	73 - 76	4	74,5	298	6	20
5	77 - 80	2	78,5	157	2	22=N
<b>Total</b>		22		1535		

$$\begin{aligned} \text{Me} &= b + p \left( \frac{\frac{1}{2}n - F}{f} \right) \\ &= 68,5 + 4 \left( \frac{\frac{1}{2}22 - 8}{8} \right) \\ &= 68,5 + 4 \left( \frac{3}{8} \right) \\ &= 68,5 + 4 (0,375) \\ &= 68,5 + 1,5 \\ &= 70 \end{aligned}$$

## 9. Modus

No	Class interval	F	X	Fx	F <sub>kb</sub>	F <sub>ka</sub>
1	60 - 63	2	61,5	123	22=N	2
2	64 - 67	6	65,5	393	20	8
3	68 - 72	8	70,5	564	14	16
4	73 - 76	4	74,5	298	6	20
5	77 - 80	2	78,5	157	2	22=N
<b>Total</b>		22		1414.5		

$$Mo = b + p \left( \frac{b_1}{b_1 + b_2} \right)$$

$$= 69.5 + 4 \left( \frac{4}{4+6} \right)$$

$$= 69.5 + 4 \left( \frac{4}{10} \right)$$

$$= 69.5 + 4 (0,4)$$

$$= 69.5 + 4$$

$$= 71,5$$

## Appendix 15

### NORMALITY TEST

#### RESULT OF NORMALITY DATA X

NO	Class Interval	F	Xi	Fixi	Xi <sup>2</sup>	Fixi <sup>2</sup>
1	65 – 68	3	66.5	199,5	4422	13.266
2	69 - 72	6	70,5	432	4970	29.82
3	73 - 76	8	74,5	596	5550	44,4
4	77 - 80	3	78,5	235,5	6162	18.486
5	81- 84	2	82,5	165	6806	13.612
Total		22		1619		119.584

$$\begin{aligned}SD_t &: I \sqrt{\frac{fixi^2}{n} - \frac{(fixi)^2}{n}} \\&: 4 \sqrt{\frac{119\ 584}{22} - \frac{(1619)^2}{22}} \\&: 4 \sqrt{5\ 435 - 5\ 415} \\&: 4 \sqrt{20} \\&: 4 \cdot 4\ 472 \\&: 17,88\end{aligned}$$



**Table of Normality Data Test with Chi Kuadrat Formula**

Interval	Real Upper Limit	Z-score	Limit of large of the area	Large of area	Fh	Fo	$\frac{(fo - fh)^2}{fh}$
65 – 68	66,5	-0,39	0,1517	0,0842	1,8524	3	0,7109
69 – 72	70,5	-0,17	0,0675	0,0476	1,0472	6	0,4924
73 – 76	74,5	0,05	0,0199	0,0865	1,903	8	0,50341
77 – 80	78,5	0,27	0,1064	0,0815	1,793	3	0,8125
81 – 84	82,5	0,49	0,1879			2	
						<b>X<sup>2</sup></b>	<b>2,5499</b>

Based on on the table above, the researcher found that  $X^2_{count} = 2,5499$  while  $X^2_{table} = 7,815$  (0,05) and 11,341 (0,01). Because  $X^2_{count} < X^2_{table}$  ( $2,5499 < 7,815$ ) with degree of dk =  $4-1 = 3$  abnd significant level 5%(0,05) distribution of data X (Vocabulary Mastery) is Normal.

### RESULT OF NORMALITY DATA Y

NO	Class Interval	F	Xi	Fixi	Xi <sup>2</sup>	Fixi <sup>2</sup>
1	60 - 64	2	62	124	3844	7688
2	65 - 69	6	67	402	4489	26.934
3	70 - 74	8	72	576	5184	41.472
4	75 - 79	4	77,5	310	6006	24.024
5	80 - 84	2	82	164	6724	13.448
Total		22		1576		113.566

$$SD_t : I \sqrt{\frac{fixi^2}{n} - \frac{(fixi)^2}{n}}$$

$$: 4 \sqrt{\frac{113\ 566}{22} - \frac{(1576)^2}{22}}$$

$$: 4 \sqrt{5\ 162 - 5\ 130}$$

$$: 4 \sqrt{32}$$

$$: 4 \cdot 5\ 656$$

$$: 22,62$$

**Table of Normality Data Test with Chi Kuadrat Formula**

Interval	Real Upper Limit	Z-score	Limit of large of the area	Large of area	Fh	Fo	$\frac{(fo - fh)^2}{fh}$
60 – 64	62	0,34	0,1331	0,0853	1,8766	2	0,0081
65 – 69	67	0,12	0,0478	0,0119	0,248	6	2,2577
70 – 74	72	0,09	0,0359	0,0972	2,1384	8	1,6067
75 – 79	77,5	0,34	0,1331	0,0723	1,5906	4	3,6496
80 – 84	82	0,54	0,2054			2	
						<b>X<sup>2</sup></b>	<b>6,522</b>

Based on on the table above, the researcher found that  $X^2_{count} = 6,522$  while  $X^2_{table} = 7,815$  (0,05) and 11,341 (0,01). Because  $X^2_{count} < X^2_{table}$  ( $6,522 < 7,815$ ) with degree of dk =  $4-1 = 3$  abnd significant level 5%(0,05) distribution of data Y (Speaking Mastery) is Normal.



## Appendix 16

### HOMOGENEITY TEST

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

Hypotheses :

$$H_0: \alpha_1^2 = \alpha_2^2$$

$$H_1: \alpha_1^2 \neq \alpha_2^2$$

#### A. Variant of Data X

No	Xi	Xi <sup>2</sup>
1	65	4225
2	65	4225
3	68	4624
4	73	5329
5	84	7056
6	75	5625
7	72	5184
8	70	4900
9	80	6400
10	74	5476
11	69	4761
12	73	5329
13	77	5929
14	77	5929
15	69	4761
16	76	5776
17	73	5329
18	69	4761
19	73	5329
20	65	4225
21	74	5476
22	75	5625
<b>Total</b>	<b>1596</b>	<b>116274</b>

$$n = 22$$

$$\sum x_i = 1596$$

$$\sum x_i^2 = 116274$$

So :

$$\begin{aligned}
 S &= \sqrt{\frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1}} \\
 &= \sqrt{\frac{22.116274 - 1596}{22(22-1)}} \\
 &= \sqrt{\frac{2556432}{462}} \\
 &= \sqrt{5233402} \\
 &= 72,342
 \end{aligned}$$

### B. Variant of Data Y

No	Yi	Yi <sup>2</sup>
1	65	4225
2	60	3600
3	65	4225
4	60	3600
5	80	6400
6	70	4900
7	70	4900
8	70	4900
9	80	6400
10	75	5625
11	65	4225
12	70	4900
13	70	4900
14	75	5625
15	65	4225
16	70	4900
17	75	5625
18	70	4900
19	75	5625
20	65	4225
21	70	4900
22	65	4225
<b>Total</b>	1530	107050

$$n = 22$$

$$\sum y_i = 1530$$

$$\sum y_i^2 = 107050$$

So :

$$\begin{aligned} S &= \sqrt{\frac{\sum n x^2 - xi}{n(n-1)}} \\ &= \sqrt{\frac{2\,355\,100 - 1530}{22(22-1)}} \\ &= \sqrt{\frac{2\,353\,570}{462}} \\ &= \sqrt{5\,094\,307} \\ &= 71,374 \end{aligned}$$

The formula was used to test hypothesis was :

$$F = \frac{\text{the biggest variant}}{\text{the smallest variant}}$$

$$F = \frac{72,386}{71,374}$$

$$F = 1,013$$

After doing the calculation, researcher found that  $F_{\text{count}} = 1.013$  with  $\alpha$  5% and  $dk = 20$  from the distribution list F, researcher found that  $F_{\text{table}} = 2,12$  cause  $F_{\text{count}} < F_{\text{table}}$  ( $1.013 < 2,12$ ). So, there is no difference in variant between the X and Y. It means, that the variable is Homogenous.



## Appendix 17

### THE RESULT OF VARIABLE X AND VARIABLE Y

<b>NO</b>	<b>Initial of Students</b>	<b>Variable X</b>	<b>Variable Y</b>
1	AP	65	65
2	AM	65	60
3	AND	68	65
4	ASH	73	60
5	FF	84	80
6	FSL	75	70
7	HAL	72	70
8	RG	70	70
9	RM	80	80
10	RFL	74	75
11	RSH	69	65
12	RFN	73	70
13	NS	77	70
14	NHD	77	75
15	NSH	69	65
16	NTS	76	70
17	MFS	73	75
18	MH	69	70
19	SMB	73	75
20	MAW	65	65
21	SN	74	70
22	WA	75	65
<b>TOTAL</b>		1596	1530

**Appendix 18**

**TABLE**  
**STATISTICAL ANALYSIS OF DATA**

<b>No</b>	<b>Initial of students</b>	<b>Variable X</b>	<b>Variable Y</b>	<b>X<sup>2</sup></b>	<b>Y<sup>2</sup></b>	<b>XY</b>
1	AP	65	65	4225	4225	4225
2	AM	65	60	4225	3600	3900
3	ADN	68	65	4624	4225	4420
4	ASH	73	60	5329	3600	4380
5	FF	84	80	7056	6400	6720
6	FSL	75	70	5625	4900	5250
7	HAL	72	70	5184	4900	5040
8	RG	70	70	4900	4900	4900
9	RM	80	80	6400	6400	6400
10	RFL	74	75	5476	5625	5550
11	RSH	69	65	4761	4225	4485
12	RFN	73	70	5329	4900	5110
13	NS	77	65	5929	4225	5390
14	NHD	77	75	5929	5625	5775
15	NSH	69	70	4761	4225	4485
16	NTS	76	70	5776	4900	5320
17	MFS	73	75	5329	5625	5475
18	MH	69	70	4761	4900	4830
19	SMB	73	75	5329	5625	5475
20	MAW	65	65	4225	4225	4225

21	SN	74	70	5476	4900	5180
22	WA	75	65	5625	4225	4875
<b>Total</b>		X = 1596	Y = 1530	X <sup>2</sup> = 116274	Y <sup>2</sup> = 107050	Xy = 111410

The result was used to calculate the value of correlation between variable X and Y. This is the calculation of  $r_{xy}$ : 0.737

$$\begin{aligned}
 r_{xy} &= \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}} \\
 &= \frac{22 \cdot 111410 - (1596)(1530)}{\sqrt{[22 \cdot 116274 - (1596)^2][22 \cdot 107050 - (1530)^2]}} \\
 &= \frac{2451020 - 2441880}{\sqrt{[2558028 - 2547216][2355100 - 2340900]}} \\
 &= \frac{9140}{\sqrt{(10812)(14200)}} \\
 &= \frac{9140}{\sqrt{153530400}} \\
 &= \frac{9140}{12390738} \\
 &= 0.737
 \end{aligned}$$



Appendix 19

**NILAI – NILAI DALAM DISTRIBUSI t**

<i>α</i> untuk uji dua pihak ( <i>two tail test</i> )						
	0,50	0,20	0,10	0,05	0,02	0,01
<i>α</i> untuk uji satu pihak ( <i>one tail test</i> )						
Dk	0,25	0,10	0,05	0,025	0,01	0,005
1	1,000	3,078	6,314	12,706	31,821	63,657
2	0,816	1,886	2,920	4,303	6,965	9,925
3	0,765	1,638	2,353	3,182	4,541	5,841
4	0,741	1,533	2,132	2,776	3,747	4,604
5	0,727	1,486	2,015	2,571	3,365	4,032
6	0,718	1,440	1,943	2,447	3,143	3,707
7	0,711	1,415	1,895	2,365	2,998	3,499
8	0,706	1,397	1,860	2,306	2,896	3,250
9	0,703	1,383	1,833	2,262	2,821	3,165
10	0,700	1,372	1,812	2,228	2,764	3,106
11	0,697	1,363	1,796	2,201	2,718	3,055
12	0,695	1,356	1,782	2,178	2,681	3,012
13	0,692	1,350	1,771	2,160	2,650	2,977
14	0,691	1,345	1,761	2,145	2,624	2,947
15	0,690	1,341	1,753	2,132	2,623	2,921
16	0,689	1,337	1,746	2,120	2,583	2,898
17	0,688	1,333	1,740	2,110	2,567	2,878
18	0,688	1,330	1,743	2,101	2,552	2,861
19	0,687	1,328	1,729	2,093	2,539	2,845
20	0,687	1,325	1,725	2,086	2,528	2,831
21	0,686	1,323	1,721	2,080	2,518	2,819
22	0,686	1,321	1,717	2,074	2,508	2,807
23	0,685	1,319	1,714	2,069	2,500	2,797
24	0,685	1,318	1,711	2,064	2,492	2,787
25	0,684	1,316	1,708	2,060	2,485	2,779
26	0,684	1,315	1,706	2,056	2,479	2,771
27	0,684	1,314	1,703	2,052	2,473	2,763
28	0,683	1,313	1,701	2,048	2,467	2,756
29	0,683	1,311	1,699	2,045	2,462	2,750
30	0,683	1,310	1,697	2,042	2,457	2,704
40	0,681	1,303	1,684	2,021	2,423	2,660
60	0,679	1,296	1,671	2,000	2,390	2,617
120	0,677	1,289	1,658	1,980	2,358	2,576
∞	0,674	1,282	1,645	1,960	2,326	



**Appendix 20**

**NILAI-NILAI r PRODUCT MOMENT**

N	Taraf Signif		N	Taraf Signif		N	Taraf Signif	
	5 %	1 %		5 %	1 %		5 %	1 %
3	0,997	0,999	27	0,381	0,487	55	0,266	0,345
4	0,950	0,990	28	0,374	0,478	60	0,254	0,330
5	0,878	0,959	29	0,367	0,470	65	0,244	0,317
6	0,811	0,917	30	0,361	0,463	70	0,235	0,306
7	0,754	0,874	31	0,355	0,456	75	0,227	0,296
8	0,707	0,834	32	0,349	0,449	80	0,220	0,286
9	0,666	0,798	33	0,344	0,442	85	0,213	0,278
10	0,632	0,765	34	0,339	0,436	90	0,207	0,270
11	0,602	0,375	35	0,334	0,430	95	0,202	0,263
12	0,576	0,708	36	0,329	0,424	100	0,195	0,250
13	0,553	0,684	37	0,325	0,418	125	0,176	0,230
14	0,532	0,661	38	0,320	0,413	150	0,159	0,210
15	0,514	0,641	39	0,316	0,408	175	0,148	0,194
16	0,497	0,623	40	0,312	0,403	200	0,138	0,181
17	0,482	0,606	41	0,308	0,398	300	0,113	0,148
18	0,468	0,590	42	0,304	0,393	400	0,098	0,128
19	0,456	0,575	43	0,301	0,389	500	0,088	0,115
20	0,444	0,561	44	0,297	0,384	600	0,080	0,105
21	0,433	0,549	45	0,294	0,380	700	0,074	0,097
22	0,423	0,537	46	0,291	0,376	800	0,070	0,091
23	0,413	0,526	47	0,288	0,372	900	0,065	0,086
24	0,404	0,515	48	0,284	0,368	1000	0,062	0,081
25	0,396	0,503	49	0,281	0,364			
26	0,388	0,496	50	0,279	0,361			



## DOCUMENTATION



The researcher gives students the test (vocabulary test)



The students answer the test





The researcher explained what are the Questionnaire for speaking test to the students



The students answer speaking test.