



**THE CORRELATION BETWEEN MORPHEME AND WORD
FORMATION MASTERIES AT THE EIGHTH SEMESTER
OF ENGLISH EDUCATION DEPARTMENT
IAIN PADANGSIDIMPUAN**

A THESIS

*Submitted to the State Institute for Islamic Studies (IAIN)
Padangsidimpuan as a Fulfillment of the requirement
For the Graduate Degree of Education (S.Pd)
In English Program*

Written By :

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

2020



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A THESIS

*Submitted to Institute for Islamic Studies (IAIN) Padangsidimpuan as
a Partial Fulfillment of the Requirement for the Graduate Degree of
Education (S.Pd) In English*

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LETTER OF AGREEMENT

Term : Thesis
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To:
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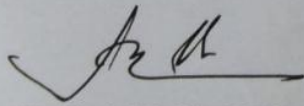
Assalamu'alaikum Wr.Wb.

After reading, studying and giving advice for necessary revision on thesis belongs to **Sri Agustina Situmorang** entitled "*The Correlation Between Morpheme and Word Formation Masteries at the Eighth Semester of English Education Department IAIN Padangsidempuan*", we approved that the thesis has been acceptable to complete the requirements to fulfill for the degree of Graduate of Education (S.Pd.) in English.

Therefore, we hope that the thesis will soon be examined in front of the Thesis Examiner Team of English Education Department of Tarbiyah and Teacher Training Faculty IAIN Padangsidempuan. Thank you.

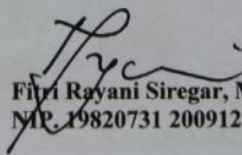
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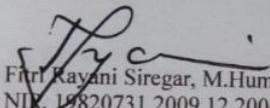


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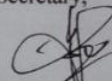
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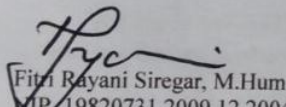
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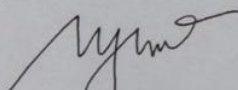
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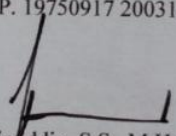

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ABSTRACT

This research focussed on the The Correlation Between Morpheme And Word Formation Masteries At The Eighth Semester of English Education Department Iain Padangsidempuan. There were some problems of the students in this research: 1) Some of students do not remember the suffix and prefix. 2) Some of students do not know how to forming new word. 3) Some of students seldom to replay the lesson. Therefore, the objective of this research was to find out the significance Correlation Between Morpheme And Word Formation Masteries At The Eighth Semester of English Education Department Iain Padangsidempuan.

The kind of this research was quantitative research. The population of this research was the Eighth Semester of English Education Department Iain Padangsidempuan which the total was 52 students. Instrument of this research was test with multiple choices. To analyze the hypothesis researcher used t-test formula.

Based on the data, it found that testing morpheme mastery was better. Based on the calculation of t-test, the researcher found that $t_{\text{count}} = 0.79299$, and $t_{\text{table}} = 0.361$. It means $t_{\text{count}} > t_{\text{table}}$ ($0.79299 > 0.361$). So, It means H_a accepted and H_0 was rejected. So, there was a significant correlation between morpheme and word formation masteries at the Eighth Semester of English Education Department IAIN Padangsidempuan.

Keywords: *Morpheme and Word Formation Masteries*

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ABSTRAK

Penelitian ini befokus kepada Hubungan antara Penguasaan Morpheme dan Word Formation (Pembentukan kata) Semester 8 Departemen Bahasa Inggris IAIN Padangsidimpuan. Ada beberapa permasalahan dalam penelitian ini: 1) Beberapa dari siswa tidak mengingat bagian dari suffix dan prefix. 2) Beberapa siswa tidak mengetahui bagaimana membentuk kata baru. 3) Beberapa siswa jarang untuk mengulang pelajaran. Oleh karenanya, objective (tujuan) penelitian ini adalah untuk menemukan makna hubungan antara Penguasaan Morpheme dan Word Formation Semester 8 Departemen Bahasa Inggris IAIN Padangsidimpuan.

Jenis dari penelitian ini adalah penelitaian kuantitatif. Populasi penelitian ini adalah Semester 8 Departemen Bahasa Inggris IAIN Padangsidimpuan dengan total atau jumlah siswa 52 murid. Instrumen penelitian menggunakan t-test dengan pilihan ganda test. Untuk Menganalisis hipotesis peneliti menggunakan rumus t- test.

Dari data, ditemukan bahwa tesing dari penguasaan morpheme adalah lebih baik. Berdasarkan kalkulasi dari rumus t- test, peneliti menemukan bahwat_{count} = 0. 79299, dant_{table} 0.361. Yang artinyat_{count}>t_{table} (0.79299>0.361) t_{count}lebih besar darit_{table}. Maksudnya adalah H_a dapat diterima dan H₀ tidak dapat diterima. Jadi, ditemukan bahwa adanya hubungan antara penguasaan Morpheme dan Word Formation Masteries semester 8 Departemen Bahasa Inggris IAIN Padangsidimpuan.

Kata kunci: Morpheme and Word Formation Masteries

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In the name of Allah, the beneficent and the merciful

Praise is to Allah lord of the word who has bestowed upon me in completing this thesis. Peace and blessing upon to the prophet Muhammad SAW, his families, his companies, and his followers.

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Padangsidempuan, Maret 2020
Researcher

SRI AGUSTINA SITUMORANG
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CHAPTER I

INTRODUCTION

A. Background of the Problem

English is a Human language. English is one of important language which is studied from primary school until university. English has important role in this globalization era, because English has been international languages in the world. Many people use English in every aspects of human life. The aspects are: some people use English language to communication in business, government, information technology and also in education.

The position of English in English Department is very important. English in the 2013 curriculum is expected to produce a productive, creative, and innovative human.¹ So, English must be learned by students to improve the creativity. One lesson of English is Morphology.

The subject of teaching English at English Department in university are: Writing, Speaking, Listening, and Reading skills. In this globalization era, those are four skills in Learning English language. Beside form the four skills above, there is one lesson to learn English language as we called morphology. Morphology is study about word. Usually, we found this lesson especially in English Department IAIN Padangsidimpuan.

The material of teaching morphology in English university are : word class categories, lexeme, root, steam, base word, structural approach,

¹Irma Nur Hasanah, “*The Implementation of 2013 Curriculum By English Teacher And It is Barries*” a thesis, (Semarang: Walisongo State Islamic University Semarang, 2015), (<https://eprints.walisongo.ac.id> accessed at February 19, 2020 retived on 10 a.m). p. 19.

traditional approach of word and so on. They are classification of word, and it can be found in morphology lesson. Beside them, one of material morphology is word formation.

Word formation is form of word. It is a process of morphological process. The process change words in a single unit to forming new word with the rules of morphology. Another meaning word formation is the activity to change the unit of word, and meaning of word. it is the process to change the word like from the meaning or structural of word and discuss the word specifically.

There are many efforts has been done by government institute to increase the subject in teaching morpheme, especially in word formation masteries. They are: the Head of English Department change the curriculum, revise the curriculum. And also, the lecturer change material lesson, use media in teaching, giving important point in word formation, and use various strategy in teaching word formation material. One of various strategy in teaching word formation is grouping task for different student.

The condition of English Education student in mastering word formation still poor. There are some reason: students have problems to learn word formation. First, students do not know the contraction the word. Second, students do not remember classify form of word formation process. And the last, students have a lack in mastery word formation, like they do not

know how to analyze the words.² So, the students are still low to mastering word formation. It can be seen from their value. There are many students got 58 as the lowest score and 91.7 as the highest score. Whereas, there were many student have low, enough, high, and very high score. It means that the condition of student in mastery word formation is low.³ So, it is all some problems that researcher find in English Department IAIN Padangsidimpuan.

Factors of words formation masteries are: “productivity, age, education, profession, language in bilinguals. And also, in formal theory factor of word formation that purely linguistics is derivational morphology.”⁴ It means derivational morpheme is one section of morpheme. Another factors are: language contact and social need.⁵ From many factors of word formation above, the researcher concluded one factor that has influence to word formation is morpheme. It has relation with word formation.

Morpheme is small unit in language that has influence in the word. The Students have knowledge about morpheme. They will know how to forming new word. Morpheme is devided in many part like : free morphemes and bound. The types of bound morpheme are, affixes, derivational and inflectional morpheme, allomorph, grammatical morpheme, lexical morpheme, assimilation, dissimilation, etc.

²Risanur, the student of English Department IAIN Padangsidimpuan, free interview, at IAIN Padangsidimpuan, June 2019.

³Fitri Rayani, *The Students Ability in Morphological Mastery (a Case Study of Sixth Semester IAIN Padangsidimpuan journal)*, (Padangsidimpuan: English Education Department) 2018), (<https://www.researchgate.net> accessed at 27, 2020 retrieved on 11 am).

⁴Livia, “An integrated theory of word formation and word-interpretation .Research into sociolinguistic and psicolinguistic factor of formation and interpretation”, (<https://www.skase.sk> Accessed at july 28, 2019 retrived on 15 p.m), p. 18.

⁵Violeta, *sociolinguistic stimuli to development of English Lexicon*, (FactaUniversitatis : linguistic and litelatur) 2004, p. 29.

The importance of morphemes are: it can look that learning morpheme can help students to know basic of word, change of word, know the meaning of word and allow students to develop another knowledge. Morpheme has effect to English language, and also morpheme will improve word from minimal unit to large. One more importance of morpheme is related with word formation, where morpheme is one section of word formation.

The role of morpheme in word formation is very important. Wherever, morpheme will influence another knowledge like word formation. It is mean if the knowledge of morpheme is good, it will improve the knowledge of word formation. And also if the knowledge of morpheme is bad, the knowledge in word formation will low.

Based on the explanation above, the researcher interesting with the title “ *The Correlation between Morpheme And Word Formation Masteries at the Eighth Semester of English Education Department IAIN Padangsidempuan*”.

B. Identification of the Problem

Word formation is the process to change a single unit of language. It means word formation will change the base word to new word. It is also change the word until different meaning from the base word. Word formation related with morpheme where is word formation always use morpheme.

As mention above, there are so many factors of word formation masteries. They are productivity, age, language contact, social need, and morpheme. From the many factors of word formation above, the writer choose morpheme as a factor of word formation. Because, morpheme has relation

with word formation masteries. And also morpheme always founded in word formation.

C. The Limitation of the Problem

From the factors above, the writer has founded so many factors in word formation. They are : factors from age, education, language contact, social need, profession, and morpheme. Factors of word formation in formal is morpheme.

The writer does not discuss all the factors in this research. So, from all the factors there is better factor that choose by writer to limit discuss into one factor, namely is morphemes.

Based on many factors above, the writer choosed morphemes. Because, It is biggest effect to word formation. And also, it is one way to learning word formation. Whitout mastery in morpheme, students difficult to learning word formation. Morpheme also, has relation with word formation.

D. The Formulations of The Problem

Based on the identification above, the researcher formulates the problem as follow:

1. How was students' ability of the Eighth Semester of English Education Department IAIN Padangsidimpuan in mastery morpheme?
2. How was students' ability of the Eighth Semester of English Education Department IAIN Padangsidimpuan in mastery word formation?

3. Was there any significant correlation between Morpheme and Word Formation Masteries at the Eighth Semester of English Education Department IAIN Padangsidimpuan?

E. The Purpose of the Research

Base on above formulation, the researcher determined the purpose of this research as follows:

1. To describe the Morpheme at the Eighth Semester of English Education Department IAIN Padangsidimpuan.
2. To describe student's ability about Word Formation Masteries at the Eighth Semester of English Education Department IAIN Padangsidimpuan.
3. To find out the correlation between Morpheme and Word Formation Masteries at the Eighth semester of English Education Department IAIN Padangsidimpuan.

F. The Significances of the Research

There result of the research is expected give more information used to:

1. To lecturer, the result can be used to motivated lecturer, and success to teach in university. Also know the characteristic university students in learning morpheme mastery at Eighth Semester English Education Department IAIN Padangsidimpuan.
2. To the Head of English Education Department. Where the result of this study will be useful to develop the English learning process, where the head can guide the English lecturer teaching English, even in morphology.

3. For researcher, the result of this study can be used as references for another researcher who has the same interest in the same field.

G. Outline of the Thesis

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

1. Chapter I consisted of introduction background of the problem, identification of the problem, limitation of the problem, formulation of the problem, purpose of the research, significance of the research, and outline of the thesis.
2. Chapter II consisted of theoretical description with some sub theory about morpheme, word formation masteries, related findings, conceptual framework and hypothesis.
3. Chapter III, is about methodology of the research that consist of the place and schedule of the research, research design, population and sample, definition of operational variables, the instrument of collecting data, technique of collecting data and technique of data analysis.
4. Chapter IV, is the result of the research talking about the analysis of data. In this chapter, the researcher also has found there are the significant correlation between morpheme and word formation masteries.
5. Chapter V, is giving conclusions about the result of the research and suggestion which is given to students and teacher by researcher.

CHAPTER II

THEORITICAL DESCRIPTION

A. Theoritical Description

1. Morpheme

a. Definition of Morpheme

Morpheme is the minimal units of meaningful into which words can be analyzed. It means morpheme is small unit that can add in the word. Morpheme relates with the word, meaning of word. It is also includes in language. Where, in language there is morpheme. Morpheme can easy to found in morphology and vocabulary.

According to Jos Daniel Parera, “morpheme are the smallest individually meaningful elements in the utterances of a language”. It means every smallest individually has a meaning. It will change structure and meaning of word.⁶ Further, Morpheme is type of investigation that analyze all those basic elements. It means “elements” has been describing in a linguistics message are technically known as morpheme. Also, morpheme in the word can be analyze one by one.⁷ Morpheme are the minimal linguistic signs in all languages, and many languages have prefixes and suffixes.⁸ It means languages may differ in how they deploy their morpheme.

⁶ Jos Daniel Parera, *Morfologi*, (Jakarta: GramediaPustakaUtama, 1990), p. 14.

⁷ George Yule, *The Study of Language, Fourth Edition* (New York: Cambridge, 2010), p. 67.

⁸ Victoria Fromkin, *An introduction to Language*, (Australian : Thomson, 2005), p. 68.

So, Based on definition above, the researcher concluded morpheme is the types of investigation of basic elements, or it is the smallest individually linguistic in language. It is also understanding to know how to forming new words, from the base word to new words.

b. Function of Morpheme

Morpheme is a meaningful unit in English, especially in morphology. There is function of morpheme, where the function of morpheme is to give meaning to a word. It means morpheme always has relation with a word.⁹ Further, morpheme is important parts of language. Function of morpheme is gives information, also it known as open class word because we can adding new word.¹⁰ It means morpheme also change the meaning of word. And every morpheme are influencing the word.

Based on explanation above, the function of morpheme is give meaning to word. Give information, and open class of word. A morpheme has effect to word, to change word and change the meaning of word.

c. Classification of Morphemes

A Morpheme is smallest unit and has meaning. The researcher has written definition and function of morpheme. Now, the researcher

⁹NedaTaherkhani and Muhammed Ourang, “ A study of Derivational morpheme in Lari&Tati as TwoEndagered Iranian Language”, *A journal of American Science*, (<http://www.jofamericanscience.org> accessed at February 19,2020 retrived on 10.56 a.m).

¹⁰Abdul Karimkeerio, *Notions Underlying the Philosophical Function of Morpheme : the Formation and its Analysis (An International Journal of Language and Linguistics vol. 4)*, (USA : Center for promoting Ideas, 2017), p. 299.

writeclassification of morpheme. They are: Free morpheme and Bound morpheme.¹¹ To make it clear, the researcher write them one by one as below:

1) Free Morphemes

a) Definition of Free Morphemes

Free morphemes are linguistic forms which can be used on their own, it can exist as independent word.¹² It means, free morpheme is minimal linguistic that can stand alone without another word. Further, free morpheme is a morpheme that could stay alone with specific meaning.¹³ It is mean every morpheme has meaning.

Based on the definition above, the researcher concluded free morpheme ia a linguistic form that could stay alone with specific meaning.

b) Kinds of Free Morphemes

Kinds of Free Morpheme are: Lexical morpheme and Grammatical morpheme.¹⁴ The researcher will explain kinds of free morpheme as below:

(1) Lexical morpheme. It is a free morphemes that have semantic content that usually refer to a thing, quality, state or

¹¹ Ingles IV, "Types of Words and Word- Formation Process in English" *a journal Universidad de los andes*, 2007, p.2.

¹²Victoria Fromkin,*An introduction to Language*,....., p. 66.

¹³Abdul Karimkeerio, *Notions Underlying the Philosophical Function of Morpheme : the Formation and its Analysis*,..... p. 299

¹⁴Ingles IV, "Types of Words and Word- Formation Process in English " p. 2.

action.¹⁵ Lexical morpheme includes to Nouns, verbs, adjective, and adverb. It can attached with another morpheme.¹⁶

Example: Noun	Verb
-Dog	-build
-Peter	-stay
-House	-cook
Adjective	Adverb
-Happy	-quickly
-Sad	-always
-Intelligent	-yesterday ¹⁷

(2) Grammatical morphemes. It is a free morphemes which have a little or no meaning on their own.¹⁸ It means grammatical morpheme is cannot attached with another morpheme. Grammatical morpheme include: preposition, conjunction, articles and pronouns.

Example: Preposition	Conjunction
-in	-and
-on	-but
-above	-because
Articles	Pronouns
-the	-them
-a	-me
	-you ¹⁹

Based on the explanation above; there are two kinds of free morpheme they are: lexical morpheme and grammatical morpheme. Lexical morpheme include to noun, verb, adjective

¹⁵Ingles IV, "Types of Word.....,p 1.

¹⁶George Yule, *The Study of.....,p. 68.*

¹⁷Ingles IV, "Types of Words ,p. 1

¹⁸Ingles IV, "Types of Words ,p. 1.

¹⁹George Yule, *The Study of.....,p. 69.*

and adverb. Grammatical morpheme include to Preposition, article, conjunction and pronouns.

2) Bound Morpheme

a) Definition of Bound Morpheme

Bound morphemes are linguistic Form which cannot exist as independent word. It means, bound morpheme not same with free morpheme.²⁰ Bound morpheme cannot stand alone without attached the morpheme. The bound morpheme can be roots, and affixes. It means, bound morpheme is a root that add another morpheme.²¹

Based on definition above, the researcher conclude, bound morpheme is form of linguistic that cannot stand alone without attached another morpheme.

b) Kinds of Bound Morpheme

Bound morpheme is a morpheme that cannot stand alone. The researcher has written definition of bound morpheme above. Now, the researcher will explain the kinds of bound morpheme. There are two kinds of bound morpheme. They are: inflectional morpheme, and Derivational Morpheme.²² Inflectional morpheme only there is suffix, and in derivational morpheme

²⁰ Robert Sibarani, *An Introduction to morphology*, (Medan: PenerbitPoda, 2006), p. 26.

²¹ Thomas E. Payne, *Understanding English Grammar*, (New York: Cambridge, 2011), p. 83.

²² BahramKazemian and SomayyehHashemi, "A *Constrastive Linguistic Analysis of Inflectional Bound Morphemes of English, Azeibaijani and Persian Language: A comparative Study*" (*A Journal & Human Development*, vol. 3)(USA: American Research Institute, 2014), p. 598.

there are suffix and prefix.²³ The researcher will explain them one by one as below:

(1) Inflectional Morpheme

Inflectional morpheme is a bound morpheme that creating a different form of the same word by changing neither parts of speech.²⁴ Edward write inflectional morpheme is change the form of word, create variant forms of a word to different roles in a sentence or in discourse.²⁵ Further, inflectional morpheme is a general grammatical process which combines words and affixes to produce grammatical forms of words. It means inflectional morpheme will produce grammatical forms.²⁶

Kinds of inflectional morpheme is all suffixes in English.²⁷ It means inflectional morpheme always created with suffix. There are only eight of Infelctional suffix in English. The researcher will explain the kinds of inflectional morpheme in example.

²³ Loreto Tood, *An Introduction to Linguistics*, (England: Longman York Press, 1987), p. 43.

²⁴ Loreto Tood, *An Introduction to Linguistics*.....p.45.

²⁵ Edward Finegan, *Language Its Structure And Use*, (USA: Thomson, 2004), p.43.

²⁶ Peter Matthews, *The Consist Oxford Dictionary of Linguistic* (USA: 1993), p. 93.

²⁷ Robert Sibarani, *An Introduction to morphology*, (Medan: PenerbitPoda, 2006),, p.45.

Example of Inflectional suffix as below:

1. Suffix –s. The function of suffix –s as a plural marker in the word.

Example: **Noun**————— **Noun**
Chair ————— Chairs
Table ————— Tables
Book ————— Books

2. Suffix –s /-es (3rd Person Singular). The function of suffix –s /-es as a 3rd person singular.

Example: **Verb**————— **Verb**
Wait ————— Waits
Go ————— Goes
Study ————— Studies

3. Suffix –ed. The function of suffix –ed as a past tense or past participle.

Example: **Verb**————— **Verb**
Wait ————— Waited
Cook ————— Cooked
Walk ————— Walked²⁸

4. Suffix –ing. The function of suffix –ing as a progressive.

Example: **Verb**————— **Verb**
Go ————— Going
Walk ————— Walking
Wait ————— Waiting

5. Suffix –en. The function of suffix –en as a past participle.

Example: **Verb**————— **Verb**
Eat ————— Eaten
Write————— Written
Give ————— Given

6. Suffix –‘s. The Function of suffix –‘s as a possessive.

Example: **Noun**————— **Noun**
Chair ————— Chair ‘s
Book ————— Book ‘s
Pen ————— Pen ‘s

7. Suffix –er. The Function of suffix –er as a comparative word.

Example: **Adjective**————— **Adjective**
Fast ————— Faster
Small ————— Smaller
Young ————— Younger

8. Suffix –est. The Function of suffix –est as a superlative word.

Example: **Adjective** ————— **Adjective**
Fast ————— Fastest

²⁸Robert Sibarani, *An Introduction to morphology*..... p. 24.

Small _____ Smallest
 Young _____ Youngest ²⁹

Based on explanation above, the researcher concluded, inflectional morpheme is a bound morpheme that change the form of word. the kinds of inflectional morpheme only suffix. The kinds of suffix in Inflectional Morpheme only there are eight suffix, they are: suffix, -s, -s/es, -ed, -ing, -en, -'s, -er, -est.

(2) Derivational Morpheme

Derivational morpheme is one types of bound morpheme. According to George Yule, derivational morpheme is make words of a different grammatical category from the stem that use bound morpheme. It means deivational morpheme will change the part of speech word.³⁰ Furthermore, derivational morpheme is change meaning and part of speech. It means derivational morpheme has effect to change part of speech and meaning of word.³¹

Kinds of Derivational morpheme is Affixation.³²

They are: derivational prefix and derivational Suffix. In

²⁹Robert Sibarani, *An Introduction to morphology*..... p. 24.

³⁰George Yule, *The Study of Language, Fourth Edition*.....,p. 69.

³¹ Robert Sibarani, *An Introduction to Morphology*.....,p. 46.

³²Robert Sibarani, *An Introduction to Morphology*.....,p.44.

English Affixation only Derivational prefix and Derivational suffix.³³ It will explain as follows:

(a) Derivational Prefix. It is a syllable that appears at the beginning of word and change the meaning. It means the prefix which are added to the beginning of a word.³⁴ The kinds of Derivational prefix are: Negative prefix, attitude prefix, size and degree prefix, space and time, and number prefix.³⁵

Example of derivational prefix as below:

1. Derivational Prefix forming Adjective

a. Adjective from Noun: a-, non-

Ex: <i>Noun</i>	-	<i>Adjective</i>
Stir	-	<u>a</u> stir
Glow	-	<u>a</u> glow
Blaze	-	<u>a</u> blaze
Stick	-	<u>non</u> -stick
Alcoholic	-	<u>non</u> -alcoholic

2. Derivational Prefix forming Verb

a. Verb from Noun : en-, de-, dis-, un-

Ex: <i>Noun</i>	-	<i>Verb</i>
Snare	-	<u>e</u> nsnare
Bark	-	<u>d</u> ebark
Cover	-	<u>u</u> ncover
Agree	-	<u>d</u> isagree

b. Verb from Verb : de-, dis-, be- mis-, un-

Ex: <i>Verb</i>	-	<i>Verb</i>
Activate	-	<u>d</u> eactivate
Continue	-	<u>d</u> iscontinue

³³Lurel J.Brinton, *The Structure of Modern English*, (Amsterdam: John Benjaminns, 2000), p. 86.

³⁴Kam Chuan Aik & Kam Kai Hui, *Longman Dictionary of Grammar and Usage* (Singapore : Addition Wesley Longman SingaporePte Ltd, 1999), p. 183.

³⁵Evelyn Hatch and Chery brown, *Vocabulary, semantics, and language education* , (New York: Cambridge University press, 1995), p. 271.

Identify	-	<u>mis</u> identify
Lock	-	<u>un</u> lock
Calm	-	<u>bec</u> alm ³⁶

3. Derivational Prefix forming Noun

a. Noun From Noun: anti-, fore-

Ex: <i>Noun</i>	-	<i>Noun</i>
Hero	-	<u>anti</u> -hero
Depressant	-	<u>anti</u> -depressant
Bear	-	<u>fore</u> bear ³⁷

(b) Derivational suffixes. It is change the class of the item

and it can change the part of speech of the root or base

of word. It means derivational suffix are added to

establish the various of word classes.³⁸ It means

derivational suffix is a suffix will formed a new word.

Kinds of derivational suffix are: nominal suffix, verbal

suffix, adjectival suffix and adverbial suffix.³⁹

Example of Derivational suffix as below:

1. Derivational Suffix forming Noun

a. Noun from Noun : -dom, -er, -ess, ship

Ex: <i>Noun</i>	-	<i>Noun</i>
King	-	king <u>dom</u>
Birch	-	birch <u>er</u>
Astronaut	-	astronaut <u>ess</u>
Friend	-	friend <u>ship</u>

b. Noun from Verb : -er, -ment, -ure,

Ex: <i>Verb</i>	-	<i>Noun</i>
Kill	-	kill <u>er</u>
Manage	-	Manag <u>ement</u>
Close	-	close <u>ure</u>

³⁶Robert Sibarani, *An Introduction to Morphology.....*, p. 73.

³⁷ William O'Grady, *Contemporary Linguistics*, (America: R.R Donnelley & Son Company, 2005), p. 119.

³⁸Sabroni Rachmadie, *Buku Materi Pokok Vocabulary*, (Jakarta: Penerbit karunika Jakarta, 1986), p.13

³⁹Ingo Plag, *Word Formation in English*, (Cambridge university Press , 2002) p. 109.

c. Noun From Adjective : -ness, -ist, -hood, -dom

Ex: <i>Adjective</i>	-	<i>Noun</i>
Certain	-	<u>certainness</u>
Productive	-	<u>productiveness</u>
Social	-	<u>socialist</u>
False	-	<u>falsehood</u>
Free	-	<u>freedom</u>

2. Derivational Suffix forming Verbs

a. Verb from Noun : -ify, -ize

Ex: <i>Noun</i>	-	<i>Verb</i>
Fish	-	<u>fishify</u>
Instant	-	<u>instantize</u>
Container	-	<u>containerize</u>

3. Derivational Suffix forming Adjective

a. Adjective from Noun: -less, -ful, -y

Ex: <i>Noun</i>	-	<i>Adjective</i>
Field	-	<u>fieldless</u>
Doubt	-	<u>doubtful</u>
Cat	-	<u>catty</u>

b. Adjective from Verb : -less, -ful, -able

Ex: <i>Verb</i>	-	<i>Adjective</i>
Count	-	<u>countless</u>
Resent	-	<u>resentful</u>
Accept	-	<u>acceptable</u>

c. Adjective from Adjective : -ish, -ly, some

Ex: <i>Adjective</i>	-	<i>Adjective</i>
Green	-	<u>greenish</u>
Good	-	<u>goodly</u>
Some	-	<u>queersome</u>

4. Suffix forming Adverb

a. Adverb from Adjective : -ly

Ex : <i>Adjective</i>	-	<i>Adverb</i>
Slow	-	<u>slowly</u>
Hard	-	<u>hardly</u>
Smooth	-	<u>smoothly</u>

b. Adverb from Adverb : -ward

Ex : <i>Adverb</i>	-	<i>Adverb</i>
After	-	<u>afterward</u>

c. Adverb from Noun : -ward

Ex: <i>Noun</i>	-	<i>Adverb</i>
Earth	-	<u>earthward</u>
Home	-	<u>homeward</u>
Sky	-	<u>skyward</u> ⁴⁰

⁴⁰Robert Sibarani, *An Introduction to Morphology*.....p.80.

From all explanation above, the researcher concluded. There are two kinds of morpheme. they are : free morpheme and Bound Morpheme. The kinds of free morpheme are: lexical and grammatical morpheme. The kinds of Bound morpheme are inflectional morpheme and derivational morpheme, where derivational morpheme there is derivational suffix and derivational suffix.

Based on the classification of morpheme above, it is relevant with English lesson syllabus of Indonesian curriculum. The syllabus uses in English Department IAIN Padangsidempuan is advanced morpheme. This syllabus consist with morpheme. They are: concept morphemes, identification of morphemes, solving morphological problem, and types of morphemes.⁴¹

Further, another references that can helping in this title, the researcher found syllabus of morphology in University of Yogyakarta, where in syllabus they are discuss derivational morpheme into noun, verb, adjective, and adverb.⁴²

So, in this research the researcher just focus in one morpheme, it is suffixiation and that appropriate with material of student's English Syllabus at the Eighth

⁴¹*English Curriculum*, (English Department IAIN Padangsidempuan : 2017) p. 132.

⁴²*Morphology syllabus in University of Yogyakarta*, accessed on Friday 11th 2019, *reporsitory.Ut.ac.id*.

2. Word Formation Masteries

a. Definition of Word Formation Mastery

Word is the section of the language, without word the language is not complete. Word is minimal unit of the letter, from one letter that combine to another letter be one word that has a meaning. Another definition and explanation completed about word, the researcher write some definition from some books about word as follows:

Further more, the word is the smallest free form that found in the language. It means every word easy to found in the language like book. Based on William, researcher concluded word is free form in the language that has meaning, word always found in the language or book.

⁴³ Another definition, word is a free form which consisted of two or more free form for instance. It means the word is a free form which does not consist entirely of two or more free form. A free form which be not a phrase was a word.⁴⁴

Oxford dictionary write definition of formation is forming or shaping.⁴⁵ It means formation is the process or activity to form something and shape it.

⁴³ William O'Grady, et.al., *Contemporary Linguistics Fifth edition an Introducton*, (New York : Bedford/St. Martin's, 2005), p. 112.

⁴⁴ Jos Daniel Parera, *Morfology*, (Jakarta: PT.GramediaPustakaUtama, 1990), p. 2.

⁴⁵ *Oxford Learner's Pocket Dictionary, Fourth Edition*, (New York: Oxford University Press, 2008), p. 174.

Mastery is the skills or knowledge from a subject that makes one master it well. Furthermore, mastery learning is a philosophically based on approach to design of classroom environments that is currently creating controversy in the educational research.⁴⁶ It means Mastery is the skill of someone about knowledge and can to produce the skill. Another definition from oxford mastery is great skill or knowledge.

So, from all definition above, the researcher conclude Word Formation Mastery is the skill knowledge of someone understanding about the process to change word and meaning of word, and they can to produce the word, for the base word to new words and can to explain the formation of word.

b. Types of Word Formation Masteries

Word formation mastery is the skill of someone knowledge. They are understanding the process to change word, meaning of word, produce the word. Types of Word Formation are: affixiation, compounding, reduplication, zero modification, and backformation It can to explain the formation of word. The types of word formation as below:

⁴⁶ Wanda Lestary, *Improving Students' Vocabulary Mastery by Using Text Twist Game at Private Islamic Junior High School A-Hijrah 2 LAU Dendandang 2016/2017 Academic Year* (Medan, 2017), (<https://eprint.ac.id> accessed at February 22, 2020 retrived on 10 p.m). p. 12.

1) Affixation. It is one part of language. It is also minimal unit that change the meaning or syntactic function of the word.⁴⁷ It means affixation is the part of language that has meaning.

Kinds of affixation are: suffixiation, prefixiation, and infixiation.

But, in English only there are: prefixiation and suffixiation.⁴⁸

Affixation by using suffix and prefix : -ion, -ful, -ism, -dom,-ment, dis-, un-, re-,

Example: Noun	Verb	Adjective
<u>Action</u>	act	-
<u>Heroism</u>	-	-
<u>Freedom</u>	-	free
<u>Treatment</u>	-	-
-	Wonder	wonder <u>ful</u> ⁴⁹
-	<u>Dismiss</u>	-
<u>Unfriend</u>	-	-
<u>Forefather</u>	<u>Reorganize</u>	-
-	-	-
-	-	<u>Inactive</u> ⁵⁰

Based on explanation above, affixation is types of language. In English the kinds of affixation only prefixiation and suffixiation. the researcher write example of affixation in one form. Where, the researcher bold kinda of affixation. Bold in beginning of word is affixation by using prefix, and the end of word is affixation by using suffixiation.

⁴⁷ As Hornby, *Oxford Advanced Learner's Dictionary* (New York: Oxford University press, 1995), p.30.

⁴⁸ Jurate Ruzaitė, *Studying Word-Formation in English* (Vytautas Magnus University Kaunas, 2012),p. 36.

⁴⁹ Ingo Plag, *Word Formation in English*.....p.109.

⁵⁰ Ingo Plag, *Word Formation in English*.....p.123

2) Compounding. It is technically combining process of two words to form a new word.⁵¹Root and may be semantically opaque.⁵²It means compounding is a process to combine the word. Kinds of Compounding, they are: compound noun, compound verb, compound adjectives,compound adverbs.⁵³

- Example :
1. Compounding Noun :lipstick (from the word, there are . Compounding two word, lip as noun + stick as noun).
 2. Compounding Verb : typewrite (type is a verb + write is a verb), blackball (black is adjective + ball is noun).
 3. Compounding Adjective : soft-builed (soft is adjective + build is verb).
 4. Compounding Adverb: double- quick (double is noun + quick is adjective).⁵⁴

Based on explanation, the researcher conclude compounding is combining one word to another word. the types of compounding are: compound noun, compound verb, compound adjective, compound adverb.

3) Reduplication. It is process of morphological in which all of the base is repeated.⁵⁵ It means, reduplication is a process to repeated the word.

Kinds of reduplication are: Firstly is Extract reduplication, Secondly, ablaut reduplication. And the last is rhyme reduplication.The researcher will explain the example as below:

⁵¹Ingo Plag, *Word Formation in English*.....p. 170.

⁵²Lurel j. Briton, *The Structure of Modern English, A Linguistic Introduction*, (USA: Jonh Benjamins, 2000), p. 93.

⁵³ Martin Haspelmath and Andrea D. Sims, *Understanding Morphology*, (Hodder Educatio , 2010), p. 137.

⁵⁴Martin Haspelmath and Andrea D. Sims, *Understanding Morphology*,....., p. 138.

⁵⁵Rochelle Lieber, *Introducing Morphology*, (New York : Cambridge University Press, 2009) p. 80.

- Example :
1. Extract Reduplication (goody-goody,so-so)
 2. Ablaut reduplication (criss-cross, zig-zag, ping-pong)
 3. Rhyme reduplication (fuddy- duddy, hodge-podgy)⁵⁶

So, based on explanation above there are three kinds of reduplication they are: extract reduplication, ablaut reduplication, and rhyme reduplication.

- 4) Zero Modification. It is a process of word without the explicit presence of an affix.⁵⁷it means there is no processing adding suffix, or prefix in the word. The kinds of nouns which are unchanged in the plural is namely zero plural

- Example :
1. In singular noun “man” and the plural still “man”
 2. In regular verb “cut” and in irregular still “cut”⁵⁸

- 5) Backformation. Backformation is a specialized type of reduction process. It is means typically the word (noun) is reduced to form a word of another type like (verb).⁵⁹ Another definition, backformation is a process that creates new word by removing real or supposed affix.⁶⁰It means backformation is the type that has process from the verb change to noun.

- Example :
1. Pronounciate(pronunciation , pronounce),
 2. Resurrect (resurrection),

⁵⁶Laurel J. Brinton, *The Structure of Modern English, A Linguistic Introduction*.....p. 91.

⁵⁷ Roberto Torre Alonso, (a thesis *Morphological Process feeding in the Formation of Old English Nouns Zero- Derivation, Affixation and Compounding*) (Universidad De La Rioja, 2011), p. 24.

⁵⁸Roberto Torre Alonso, (a thesis *Morphological Process feeding in the Formation of Old English Nouns Zero- Derivation, Affixation and Compounding*)p. 24

⁵⁹George Yule,*The Study of Language, Fourth Edition*....., p. 55-56.

⁶⁰ Moris Halle, “Prolegomena to a Theory of Word Formation” (<https://pdfs.semanticscholar.org> accessed at February 27, 2020 retrieved on 11 pm). p. 23.

3. Burger (hamburger), it means the bit chopped off is a recognizable affix or word like; in example word ham in hamburger.⁶¹

Based on the explanation above, there are so many kinds of word formation, the researcher write them only five like: Affixiation, compounding, reduplication, zero modification and the last is backformation.

B. Review of Related Findings

Research was study about certain object to find out new facts about it. There are some of previous studies which support this research. These previous studies as follows:

1. Nurbaidah, in her thesis concluded that student's ability in forming new word by using suffixes at Grade X SMA NurulilmiPadangsidimpuan are high ability. It used Z test to analyze the hypothesis. It can be seen in the result from her thesis is 0.591. The hypothesis $Z_{count} 0.59 > Z_{table} 0.19$. So, from the result, the hypothesis is accepted.⁶²
2. Ratih, in her thesis concluded that there is significant correlation between word formation and wring ability. Where, the value of this thesis shows that "r" product moment is higher than "r" table ($0.65 > 0.32$). It means the hypothesis is accepted.⁶³
3. Chothibul and Faizal ,in their journal cocluded that the relationship between morphological awareness and vocabulary knowledge of EFL

⁶¹George Yule, *The Study of Language, Fourth Edition.....*,p. 55-56.

⁶²Nurbaidah, *A thesis "The Students' Ability in Forming Word By Using Suffix at Grade X SMA Nurul Ilmi Padangsidimpuan"*, (Padangsidimpuan: English Department , 2017), p. 36.

⁶³Ratih Eliana, *A thesis " The correlation between Word Formation Mastery and Writing Ability (A study at the third semester of UMTS Padangsidimpuan, 2013)*, p. 40.

learners of Islamic university of Lamongan is low. The result of statistical computation of correlation between morphological awareness and vocabulary knowledge and considering the interpretation table of significance, 0.227 is in the interval 0.200 – 0.400. It means that the variables have low positive correlation.⁶⁴

4. Hafiz, in her thesis concluded that there is no significant correlation between student's morphological awareness of affixes and their reading. It shows that $t_{\text{count}}=1,539 < t_{\text{table}}= 2,060$ with the level of significance of 5%.⁶⁵
5. Sabroh, in her thesis concluded that there is correlation between vocabulary mastery and reading comprehension at fifth semester student's of TBI-2 IAIN Padangsidimpuan. The result from analysis found r_{xy} was higher than r_{table} . It means that r_{count} is higher than r_{table} ($0.95 > 0.374$). It means that the hypothesis was accepted.⁶⁶

The differences between those researches with this research are the place of the research, the level of the subject; the subject of the first research is Grade X SMA Nurul Ilmi Padangsidimpuan, the subject of the second research is the third semester students of UMTS Padangsidimpuan. The subject of the third research is EFL learners of Islamic university of

⁶⁴ Chotibul Umma and Mohammad Faizal Mubarak "The Relationship Between Morphological Awareness And Vocabulary Knowledge of EFL Learners of Islamic University Lamongan" (<http://www.journal.uisla.ac.id> accessed at February 27, 2020 retrieved on 08 am).

⁶⁵ Hafiz Ana Nafiah, "The correlation between student's morphological awareness of affixes to their reading comprehension", In Academic Year 2016/2017, *A Thesis*, (Salatiga : English Department Of Teacher Training and Education Faculty State For Islamic Studies (IAIN) of duapuluh tiga Maret 2017), (<https://e-repository.perpus.iainsalatiga.ac.id>. Accessed on February 27, 2020 retrieved on 09 am).

⁶⁶ Sabroh Laila Siagian, "The Correlation Between Vocabulary Mastery And Reading Comprehension At Fifth Semester Students's of TBI-2 IAIN Padangsidimpuan", *a thesis* (Padangsidimpuan: IAIN Padangsidimpuan, 2017). p. 44.

Lamongan. The fourth subject of the research is the fifth semester of IAIN Salatiga. The last subject of the last research is Fifth Semester Students' of TBI-2 IAIN Padangsidempuan". The subject of this research is the Eighth Semester of English Education Department IAIN Padangsidempuan. Also, the similarity between the first research and this research is the purpose of the research which is to find out the correlation between morpheme and word formation masteries.

C. Framework of Thinking

Morpheme is study about word. Morpheme is a minimal unit that has meaning. It is one of important thing in learning language, especially in learning foreign language. Morpheme provide information about word. It will classify the word from the little until a bigger word. In other, morpheme always has relate with the word.

Word formation is a process to form new word. It is process to combine a new word with another morpheme. Word formation will forming a word from the base to a new word. It will change the meaning and grammatical of word. It is also, produce a new word, like structure of word, meaning of word, or function of word.

Morpheme has role in word formation. In morpheme we will study about minimal word, in word formation we can combine a minimal word with another word. Morpheme can help us to know the word with specifically. It can help us to combine the word in word formation. To form a

new word, we must know the classification of word, especially we must know about morpheme.

Morpheme knowledge can help us in word formation. Learning morpheme always has related with Word formation. Where, in kinds of word formation there is affixation, as we know types of affixation is suffix and prefix. It is also one kinds of morpheme. Based on the explanation above, it can be assumed that there is a correlation between morpheme and word formation masteries. Illustration of variable may be seen on figure below:

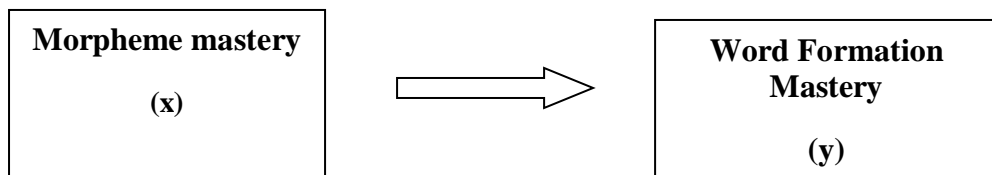


Figure 1. Simple Paradigm
Information:
X: Independent Variable (Morpheme)
Y: Dependent Variable (Word Formation mastery)
→ : Relationship /Influence

D. Hypothesis

Based on explanation above researcher formulates the hypothesis are:

H_a : There is a significant correlation between morpheme mastery and forming new words mastery at the VII semester of English Education Departement IAIN Padangsidimpuan.

H_o : There is no a significant correlation between morpheme mastery and forming new words mastery at VII semester of English Education Departement IAIN Padangsidimpuan.

CHAPTER III

RESEARCH METHODOLOGY

A. Place and Time of the Research

This research had been conducted at the eighth semester of English Education Department IAIN Padangsidempuan. It was located on H. T Rizal Nurdin Km. 4, Sihitangkota Padangsidempuan. It was done from september 2019 up to finished. The Subject of this research was the seventh semester of English Education Department IAIN Padangsidempuan.

B. Method of the Research

This research used quantitative research with correlation types. The method used in this research was descriptive method. Descriptive method is to describe the relation between one variable with another variable. Based on the explanation, it can be concluded that the correlation quantitative is a kind of descriptive method.

The aim of this research was to know the correlation of two or more variables. It was also required information about at last two variables obtained from a single group of people. The researcher wanted to know the correlation between morpheme and word formation masteries at the eighth semester of English Education Department IAIN Padangsidempuan.

C. Population and Sample

1. Population

Population is the group of interest to the researcher, the group to which she or he would like the results of the study to be generalizable.⁶⁷ It means population is all the class to research. According to Suharsimi said population is all of the subject element in a study.⁶⁸ Based on the explanation above, the population of this research was taken from all eighth semester of English Education Department IAIN Padangsidimpuan. It consists of three class. So, it could be seen the table follow:

Table: 1. The population of the Eighth Semester English Education Department IAIN Padangsidimpuan

No	Class	Total
1	TBI-1	37
2	TBI-2	34
3	TBI-3	37
Total		108

(source :The chief of TBI 1, 2, 3 IAIN Padangsidimpuan)

2. Sample

Sample is selected from a larger group which consists of the individuals, item or events and referred to as a population. According to Saifuddin Azwar, sample is a part of population.⁶⁹ It means sample is taken from population, and it is also part of population. That used as the respondent of a research.

⁶⁷L.R. Gay and Peter Airasian, *Educational Research for analysis and application*, America: Prentice Hall, 1992, p. 122

⁶⁸Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*, (Jakarta : Rineka Cipta, 2006), p. 130.

⁶⁹Saifuddin Azwar, *Metode Penelitian*, (Yogyakarta : Pustaka Pelajaran, 2004), p. 79.

According to L.R. Peter Airasian, “for descriptive research, it is common to sample 10 to 20% of the population although this range will change with the size of the population.”⁷⁰ He also stated “the minimum sample size depends on the type of the research involved. Some cite a sample size of 30 as a guideline for correlational, causal-comparative, and experiment research. Thus, for correlational studies at least 30 participants are needed to establish the existence or nonexistence of a relationship.”⁷¹

In this research, researcher used Slovin formula to take the sample :

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

n = Sample size

N = Population

e = Significant error (5% and 10%)

Based on above formula researcher used significant error 10% and the sample could be decided as follows :

$$n = \frac{108}{1 + 108 \cdot 0.1^2}$$

$$n = \frac{108}{1 + 1.08}$$

$$n = \frac{108}{2.08}$$

$$n = 51.92$$

$$n = 52$$

Based on the calculation above, the researcher used 52 students as a sample and it had fulfilled the criteria of sample in correlational research.

⁷⁰L. R. Gay and Peter Airasian, *Prosedur Penelitian Suatu Pendekatan Praktek*.....p 134.

⁷¹L. R. Gay and Peter Airasian, *Prosedur Penelitian Suatu Pendekatan Praktek*.....p.

In this research, researcher used simple random sampling in taking the sample. Random sampling is the process of selecting a sample in such a way that all individuals in define population have equal and independent chace of being selected for the sample.⁷² It means random sampling is the process to get the sample using formula.

So, the researcher's reason used simple random sampling technique because of all the sample had the same chance to be choosen and it was the best single way to obtain representative sample.

Next the researcher used a lottery technique to take the sample. All the members of population were written in a samall paper based on member of each classroom. After that researcher selected the members randomly from each class.The last researcher found the sample 21students from TBI 1, 13students from TBI 2, 18students from TBI 3.

Table 2. Sample in the class

No	Class	Total
1	TBI-1	21
2	TBI-2	13
3	TBI-3	18
Total		52

D. Definition of the Operational Variable

Based on the title of the thesis, this research was consisted of two variables, that the definition variable as follow:

⁷²L. R. Gay and Peter Airasian,*Prosedur Penelitian Suatu Pendekatan Praktek*.....p. 123.

1. Morpheme

Morpheme is a minimal unit that has meaning. It means morpheme can to analyze one by one. Every unit of morpheme will change the structure or grammatical of word.

2. Word Formation

Word Formation is a process to combine the word from the base word to another word. It can to produce the word from a base word to new word, and can to explain the form of word one by one. Most importantly, learner not only understand the meaning of words, but they also understand how to forming a new word.

E. The Instrument of the Research

Instruments and data is very important in the research. The study without the data is impossible to do. The Researcher had to have a good instrument, instruments could guarantee for taking the valid data. While, instrumen was choosen by researcher to collect data to make research becomes easier in order. In this research, the instrument used by researcher was test.

The instrument of collecting data was using the test. A test is a method of measuring a person's ability, knowledge or performance in a given domain. A test is a first method. It is an instrument a states of technique, procedure, or item that requires performance on the part of the test taker.⁷³ The test used in this research was multiple choice that consisted of four options a, b, c, or d.

⁷³ H. Doughlas Brown, *Language assessment principles and, the researcher has some indicators in reading comprehension test follow; Classroom Practices*, (United America: San Fransisco State University, 2004), p. 384

The test was divided into one parts. They were morpheme mastery test and word formation masteries test.

1. Morpheme Mastery

For morpheme, it used multiple choice types in order to facilitate the students to answer the test. The indicator of Morpheme Mastery as follows:

Table 3.The Indicator of Morpheme Mastery

No	The Indicator of Morpheme Mastery	Subject of indicator	Number of Item	Item
1	Identify of derivational morpheme suffix in	1. Nominal suffix (-er, -dom, -ment, -ness, -ist, -ship, -hood, -some)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,12, 13, 14, 15, 16, 17, 18, 19	19
		2. Verbal Suffix (-ify, -ize)	20, 21, 22, 23,	4
		3. Adjective Suffix (-less, -ful, -ish, -y)	24, 25, 26, 27, 28, 29, 30	7
		4. Adverb suffix (-ward, -ly)	31, 32, 33, 34, 35, 36,	6
2	Identify of derivational morpheme Prefix in	1. Negative Prefix (mis-, dis-, in-, un-, a-)	37, 38, 39, 40, 41, 42, 43, 44,	8
		2. Attitude Prefix (anti-, with-, for)	45, 46, 47	3
		3. Size and degree (under-)	48	1
		4. Space and time (fore-)	49	1

		5. Number prefix (bi-)	50	1
Total		50	50	50

The following is formula is score students morpheme mastery

$$studentsscore = \frac{studentsscoreanswer}{totalitems} \times 100\%$$

2. Word Formation Mastery

For Word Formation Mastery, it used the multiple choice type in order to facilitate the students to answer the test. The indicator of word formation mastery as follows:

Table 4. The Indicator of word Formation Mastery

No	The Indicator of Word Formation Mastery	Subject of Indicator	Number of Item	Item
1	<i>Suffixes forming Noun</i> - adjective forming noun -verb forming noun	-ist	1,2,3	3
		-dom	4, 5	2
		-ness	6, 7, 8. 9	4
		-ment	10, 11, 12	3
		-er	13, 14	2
		-ion	15, 16, 17, 18,	4
	-noun forming noun	-ship	19,20, 21	3
		-hood	22, 23, 24	3
	<i>Suffixes forming Adjective</i> - Adjective from Noun - Adjective from verb - Adjective from noun	-less	25, 26	2
		-full	27	1
-able		28	1	
-y		29	1	
<i>Suffix forming Adverb</i> -Adverb from adjective -Adverb from verb	-ly	30, 31	2	
	-ward	32	1	

	<i>Suffix Forming Verb</i>			
	-Verb from adjective	-ify	33	1
	-Verb from Noun	-ize	34	1
2	-Negative Prefix	in-	35	1
		un-	36, 37, 38, 39	4
		Dis-	40, 41, 42	3
		Mis-	43, 44, 45	3
		a-	46	1
	-Attitude Prefix	Anti-	47	1
	-Size and degree prefix	Over-	48	1
	-Number prefix	Bi-	49	1
	-Space and time prefix	Fore-	50	1
Total			50	50

The following is formula is score students Word Formation Mastery

$$studentsscore = \frac{studentsscoreanswer}{totalitems} \times 100\%$$

F. Validity and Reability of Instrument

1. Test Validity

Before giving the test, the researcher had done testing the instrument. The purpose was to know what the test had been ready to test. The researcher used content validity to valid the test. It was established how well the test compares to the real world.

Suharsimi Arikunto said validity is the chance which show the level of instrument about measurement something.⁷⁴ There are three types of validity in quantitative research:

⁷⁴Suharsimi Arikunto, *prosedur Penelitian Suatu Pendekatan Praktik*, (Jakarta: Rineka Cipta, 2013), p. 167

- a. Face and content validity
- b. Concurrent and predictive validity
- c. Construct validity⁷⁵

In this research, the researcher had used content and item validity to find out validity of instrument. To get the validity of the test, the formula of r point biserial can be used as follow:⁷⁶

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

Where:

R_{pbi} : coefficient item validity

M_p : Mean Score

M_t : mean score of the total score

SD_t : standart deviation of the total score

P : presentation of right answer of the item tested validity

Q : presentation of wrong answer of the item tested validity

2. Test Reability

The reability of the characteristic of a good test refers to competency of the measurement. Suharsimi Arikunto said to obtain the reability of the test, the researcher used formula K-R 20.⁷⁷

$$r_{11} = \left(\frac{k}{k-1} \right) \left(\frac{V_1 - \sum pq}{V_1} \right)$$

⁷⁵Suharsimi Arikunto, *prosedur Penelitian Suatu Pendekatan Praktik*, p. 179.

⁷⁶Anas Sudijono, *Penganta rStatistik Pendidikan*, (Jakarta: Raja Grafindo Persada, 2008), p. 258

⁷⁷Anas Sudijono, *Pengantar Statistik Pendidikan*, p.231

Where:

R_{11} = test reability

K = total of question

V = variant total

P = proporsi subject who is right answer

Q = proporsi subject who is wrong answer

G. Techniques of Data Analysis

After collecting the data, the researcher analyzed the data by using quantitative data. In quantitative, the most suitable analysis used statistical process. It meant that the data were collected and analyzed by using formulation and steps as follow:

1. First, identifying the corrected answer the subject research from the test.
2. Second, using mean, median and modus score to identify variable X and

Y. the formula as follows:

- a) To know the mean (average) score used the formula

$$M_{(x)} = \frac{\sum fx}{x}$$

Description:

M_x = Mean (average)

$\sum fx$ = the sum of multiplication of each score with a frequency

N = number of students

- b) To know the median score used the formula

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

Description:

l = Lower limit of the real containing median score

fk_b = Cumulative frequency lies below the median score containing

f_i = original frequency (frequency of score containing median)

i = Class interval⁷⁸

c) To know the modus score used the formula

The formula used is:

$$M_0 = l + \left(\frac{f_a}{f_a + f_b} \right) \times i$$

Description:

M_0 = mode

l = Lower limit of the interval containing the real- mode

f_a = frequency located at the interval that contains the mode

f_b = frequency located at below that contains the mode

i = Class interval

Table 5. The table Interpretation of Mean Score

NO	Interval	Predicate
1	80- 100	Very Good
2	70-79	Good
3	60-69	Enough
4	50-59	Low
5	0-40	Fail

⁷⁸Anas Sudijono, *Pengantar Statistik Pendidikan*,p. 82.

3. Identified the normality test

To know whether the data of research was normal or not. So, researcher had used chi-Quadrate in formula, as follow :

$$x^2 = \sum \left(\frac{f_0 - f_e}{f_0} \right)$$

Where :

X^2 = value of chi-square

F_0 = observed frequency

F_e = expected frequency ⁷⁹

To calculate the result of chi-quadrate, it was used signiiccant level 5%, and degree of freedom as big as total of frequency is lesson 3 (dk= k-3). If the result $x^2_{\text{count}} < x^2_{\text{table}}$. So, it can be concluded that datais 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 that r productmoment with 5% significant level. The hypothesis was accepted if $r_{\text{count}} > r_{\text{table}}$. The formula of product moment explained below:

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

⁷⁹Mardalis, *Metode Penelitian suatu Pendekatan Proposal* (Jakarta: Bumi Aksara, 2003), p. 85.

Where :

R_{xy} = Coefficient Correlation between variable X and Y

ΣX = the scores of variable x

ΣY = scores of variable y

ΣXY = Product X and Y

N= total of sample

5. To examine the significance variable

To examine the significances variable x and y was calculated by:

$$r = \frac{r_{xy} \sqrt{n-1}}{\sqrt{1 - r_{xy}^2}}$$

Where:

R= result of t-test

N = total of sample

R_{xy}^2 = coefficient correlation between X and Y

6. To know the correlation of coefficient determination variables

To know the contribution of coefficient correlation between variable X and Y. it can be define. The formula determinant correlation:

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

Where:

CD= Contribution of coefficient determinant

r = coefficient correlation

The result should be appropriated with the interpretation to the index correlation of product moment, it interpretation of the result can be seen in the following table:

Table 6. Table Interpretation of XY

The value	Degree
Between 0.00-0.20	Very Low
Between 0.21-0.40	Low
Between 0.41-0.70	Enough
Between 0.71-0.80	High
Between 0.91-1.00	Very High

CHAPTER IV

THE RESULT OF THE RESEARCH

In this chapter, this research to evaluate a correlation between morpheme and word formation masteries at the eighth semester of English Education Department IAIN Padangsidimpuan especially in academic years 2018/ 2019. The researcher has calculated the data using test. Applying quantitative research, the researcher used the formulation of t- test. The researcher described the result based on data as follow:

A. Description of the Data

The data described by sequence of variables. Description of result morpheme mastery was variable (X), Word formation mastery was variable (Y). The researcher showed the result of the score as below:

1. Morpheme Mastery

In this part, the researcher shows the result of the research has done. The result of morpheme as X variable. In this research the researcher presents 50 items of test. After test has calculated the students' score. Total score in morpheme mastery was 4066, mean 78.48, median 79.14, modus 82.7, highest score 92 and lowest score 60. Total class was 7. Interval was 5. It is described in the table below :

Table : 7. The resume of Variable Score of Morpheme Mastery

Highest Score	92
Lowest Score	60
Range	32
Total of Classes	7
Interval (i)	4
Mean	78.48
Median	79.14
Modus	82.7
Total	4066

Based on the table above, it shows total is 4066, mean is 78.48. It means the students in learning morpheme was in good predicate. Highest score is 92, lowest score is 60, range is 32, median 79.14. To know revelation of data was done to grouped the variable score of morpheme mastery with the total classes 7 and interval 4.

Then, the calculation of the frequency distribution of students' score of morpheme could be applied into the table frequency as below:

Table: 8. Frequency Distribution of Morpheme Mastery

No	Interval	Frequency	Mid Point	Percentages
1	61- 65	3	63	5.76%
2	66- 70	4	68	7.69%
3	71- 75	6	73	11.53%
4	76- 80	21	78	40.38%
5	81- 85	9	83	19.23%
6	86 – 90	8	88	15.38%
7	91- 95	1	93	1.92%
	$i = 5$	52	546	100%

Based on the frequency table above, the students' score in class interval between 61 -65 was 3 students (5.76%), 66-70 was 4 students (7.69%), 71-75 was 6 students (11.52%), 76-80 was 21 students (40.38%),

81- 85 was 9 students (19.23%), 86- 90 was 8 students (15.38%), and 91- 95 was 1 student (1.92%).

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

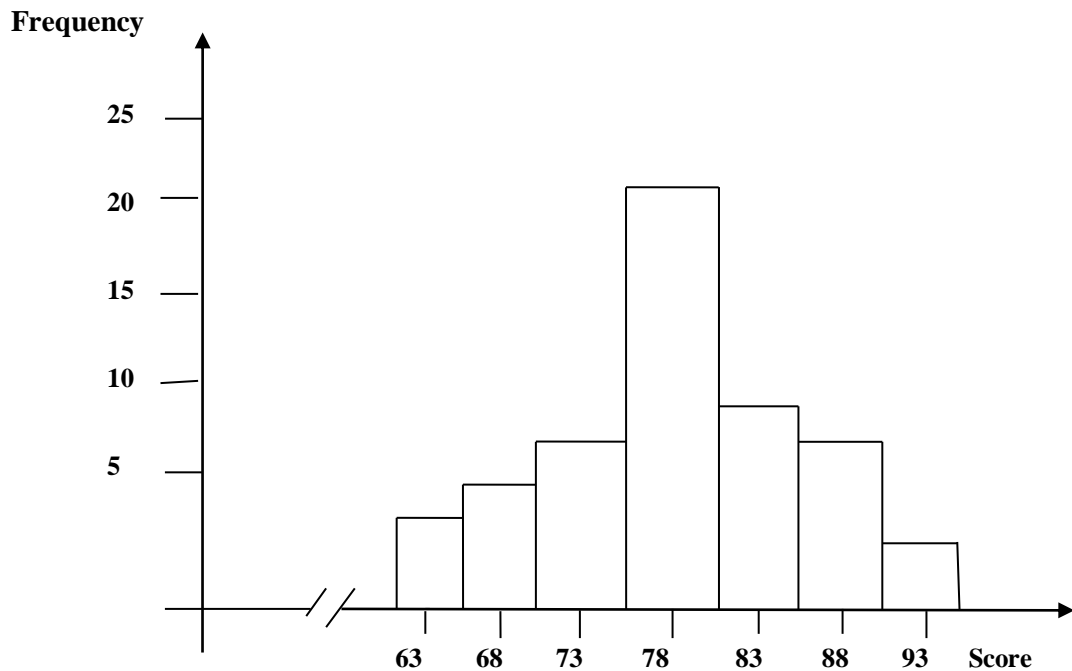


Figure 1: the score of Morpheme Mastery

Based on the histogram, it had been to known the variable of morpheme mastery that the respondent there were interval 61-65 for 3 student, 66- 70 for 4 student, 71- 75 for 6 students, 76-80 for 21 students, 81- 85 for 9 students, 86- 90 for 8 students, 91- 95 for 1 students. So, the researcher concluded the histogram shows the highest frequency in interval 76- 80 was 21 students.

2. Word Formation Mastery

The resume score of variable students word formation mastery at the eighth semester of English Education Department been gotten as table below :

Table: 9. The resume of variable scores of Word Formation Mastery

Highest Score	92
Lowest Score	62
Range	30
Total of Classes	7
Interval (i)	4
Mean	79.44
Median	79.02
Modus	83
Total	4146

Based on the table above the result of the sample was 52 students, the calculation of how to get it can be seen in the appendix. The highest score is 92 and the lowest is 62, range 30, total of classes was 7, the interval was 4, mean 78.76, median 77.94, and modus was 83.26. The frequency distribution as follows :

Table :10.Frequency Distribution of Word Formation Mastery

No	Interval	Frequency	Mid Point	Percentages
1	61- 65	2	63	3.84 %
2	66- 70	4	68	7.69 %
3	71- 75	6	73	11.53%
4	76- 80	20	78	38.46%
5	81- 85	9	83	17.30%
6	86 – 90	8	88	15.38%
7	91- 95	3	93	5.76%
	$i = 4$	52	546	100 %

Based on the frequency table above, the students' score in class interval between 61 -65 was 2 students (3.84%), 66-70 was 4 students

(7.69%), 71-75 was 6 students (11.52%), 76-80 was 20 students (38.46%), 81- 85 was 9 students (17.30%), 86- 90 was 8 students (15.38%), and 91- 95 was 3 students (5.76%).

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

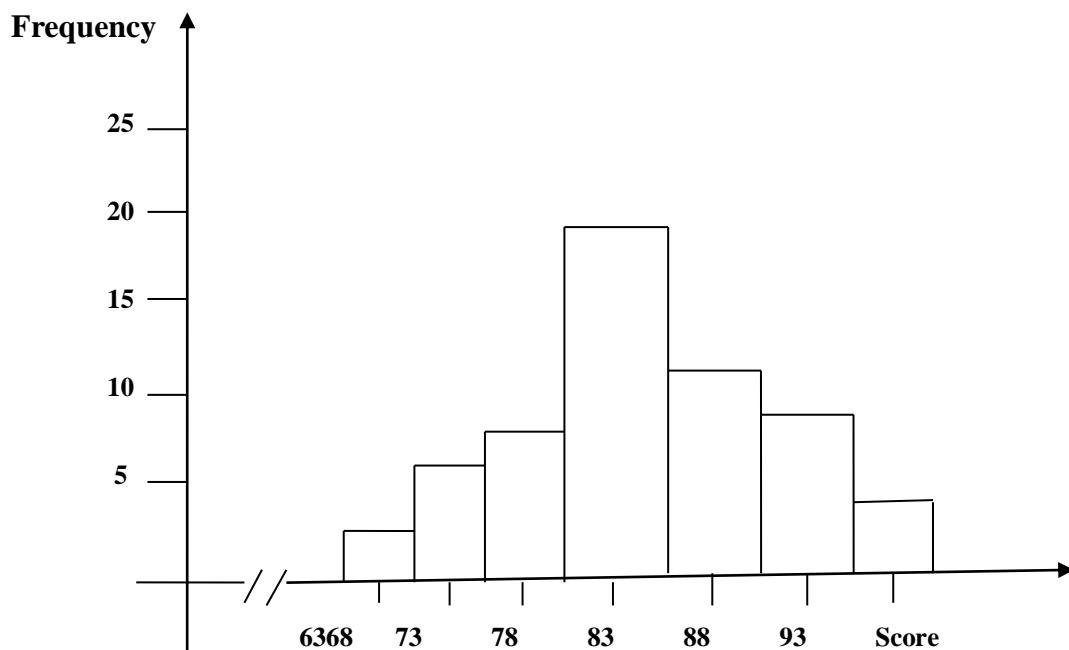


Figure 2: The Score of Word Formation Mastery

Based on the histogram, it had been to known the variable of word formation mastery , were interval 61-65 for 2 students, 66- 70 for 4 students, 71-75 for 6 students, 76- 80 for 18 students, 81- 85 for 11 students, 86 – 90 for 8 students, and 91- 95 for 3 students. So, the researcher concluded the histogram shows the highest frequency in interval 76- 80 was 18 students.

B. Testing Hypothesis

The hypothesis of this research was Morpheme and Word Formation Mastery at the eighth Semester of English Education Department IAIN Padangsidempuan. And it was tested by product moment correlation.

To know the analysis data could be seen in appendix. From the data, it was gotten the each score which was used to do calculation of product moment and the each of the variable score as follows:

N	: 52
ΣX	: 4014
ΣY	: 4108
ΣX^2	: 314628
ΣY^2	: 326936
ΣXY	: 3220052

Based on the value above, calculated the value of correlation between variable x and y :

$$\begin{aligned} r_{xy} &= \frac{N\Sigma XY - (\Sigma x)(\Sigma y)}{\sqrt{\{N\Sigma X^2 - (\Sigma x)^2\}\{N\Sigma y^2 - (\Sigma y)^2\}}} \\ &= \frac{52.3255756 - (4066)(4146)}{\sqrt{\{52.320284 - (4066)^2\}\{52.332908 - (4146)^2\}}} \\ &= \frac{169299312 - 16857636}{\sqrt{\{16654768 - 16532356\}\{17311216 - 17189316\}}} \end{aligned}$$

$$\frac{152441676}{\sqrt{\{122412\}\{121900\}}}$$

$$\frac{152441676}{\sqrt{14922}}$$

$$\frac{152441676}{1221556384}$$

$$= 0.79299$$

The product moment by gotten the correlation coefficients $r_{xy} = 0.79299$ was more than $r_{table} = 0.361$ on level 5% . So, it meant there were strong correlation between morpheme and word formation masteries at the eighth semester of English Education Department IAIN Padangsidimpuan. It had been written in table of coefficient correlation interpretation value r.

To know the contribution of variable X to variable Y using formula as follows :

CD = Contribution of coefficient determinant

r = coefficient correlation

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

$$= 0.79299^2 \times 100\%$$

$$= 79.299\%$$

Based on the calculated above, there is the contribution morpheme and word formation masteries is 79.299%. It means that Morpheme gave 79.299% contribution to learning of Word Formation.

It was said that the validity of the contribution of variable X to variable Y was “accepted”. So, from the explanation above, it can said that there was correlation between morpheme and word formation materies at the eighth semester of English Education Department IAIN Padangsidempuan.

Table: 11. The criteria Score of Correlation of Interpretation

Product Moment	Interpretation
0. 00 – 0. 20	Very low
0. 20 – 0. 40	Low
0. 40 - 0. 70	Enough
0. 70 – 0. 90	High
90- 100	Very High

To know the contribution of student’s morpheme as variable X to word formation as variable Y in identifying were $KP = r^2 \times 100\%$. Based on the calculating of contribution the result was 79. 299 % it can be seen in appendix .That is meant the contribution of students’ morpheme toward word formation masteries was 79. 299%.

To test the significant, the researcher used formulate t_{count} or t_{test} as follows :

$$t_{count} = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} = \frac{0.792\sqrt{52-2}}{\sqrt{1-(0.792)^2}}$$

$$= \frac{0.792\sqrt{50}}{\sqrt{1-(0.62)^2}} = \frac{0.792(7.071)}{\sqrt{1-(0.792)^2}}$$

$$= \frac{0.792 (7.071)}{\sqrt{0.6156}} = \frac{5.600}{0.784}$$

$$= 7.142$$

Based on calculation above the researcher found that $t_{\text{count}} = 7.142$ and $dk = N - 2 = 52 - 2 = 50$ and t_{table} on significant level $5\% = 0.361$. So, $t_{\text{count}} > t_{\text{table}}$ ($7.142 > 0.361$). The researcher has been test the hypothesis. It means that there was a significant correlation between two variables.

C. Discussion

Based on above result of the research, the researcher will compare the researcher's result with the related finding. First, Nurbaidah⁸⁰ in her thesis showed that student's ability in forming new word by using suffixes at Grade X SMA Nurulilmi Padangsidimpuan are high ability. Second, Ratih⁸¹ who also concluded that there is significant correlation between word formation and writing ability. Third, Chothibul and Faizal⁸² in their journal concluded that the relationship between morphological awareness and vocabulary knowledge of EFL learners of Islamic university of Lamongan is low. The fourth Hafiz⁸³, in her thesis concluded that there is no significant correlation between student's morphological awareness of affixes and their reading. The last Sabroh⁸⁴, in

⁸⁰Nurbaidah, *A thesis "The Students' Ability in Forming Word By Using Suffix at Grade X SMA Nurulilmi Padangsidimpuan"*, (Padangsidimpuan: English Department, 2017), p. 36.

⁸¹Ratih Eliana, *The correlation between Word Formation Mastery and Writing Ability*.....

⁸²Chotibu IUmma and Mohammad Faizal Mubarak, *The Relationship Between Morphological Awareness And Vocabulary Knowledge of EFL Learners of Islamic University Lamongan*.....

⁸³Hafiz Ana Nafiah, *The correlation between student's morphological awareness of affixes to their reading comprehension*, *In Academic Year 2016/2017*.....

⁸⁴Sabroh Laila Siagian, *The Correlation Between Vocabulary Mastery And Reading Comprehension At Fifth Semester Students' of TBI-2 IAIN Padangsidimpuan*

her thesis concluded that there is correlation between mastery and reading comprehension at fifth semester student's of TBI-2 IAIN Padangsidimpuan.

Based on the description above it was proved that this research get the same research with Nurbaidah, Ratih and Chotibul, Hafiz, and Sabroh's research. The research of them, have same theory. Where, the theory is discuss about morphology lesson especially morpheme theory. Some of the research has same formula to analyze the data.

It has confirmed that there is no significant correlation between student's morphological awareness of affixes and their reading. Ratih, Sabroh, and Nurbaidah hypothesis are accepted, Hafiz and Chotibul is low correlation in the research.

From the explanation above, it supported the theory of this research. The research is the correlation between Morpheme and Word Formation Masteries at the Eighth semester of English Education Department IAIN Padangsidimpuan. The result was $t_{count} > t_{table}$ ($0.792 > 0.367$). It means there is correlation between morpheme and word formation masteries. It was accepted.

Based on the description above, it can be seen clearly that morpheme mastery has relation with all subject like word formation masteries. Morpheme is not far from the language. Because, in language usually found morpheme. It can be known if the morpheme has relationship with the word, morphology, vocabulary, reading, language, and another else.

So, the researcher did a research about “ The Correlation Between Morpheme and Word Formation Masteries at the Eighth Semester of English Education Department IAIN Padangsidempuan.

D. Threat of the Research

The researcher found the threats of the research as follows:

1. The students were not serious in answering the test. Some students only doing the test without read the test.
2. Some students forget about morpheme. When they answered the test, they have less concentrate on the best .So, it made them can not get true answer.
3. The researcher was do not exactly some students do the test is reality. There was a possibility that some of them answered by copying their friends answer.

CHAPTER V

THE CONCLUTIONS AND SUGGESTIONS

A. Conclusions

From this research, the researched concluded “ there is correlation between morpheme and word formation masteries at the Eighth Semester of English Education Department IAIN Padangsidimpuan. The researcher got the conclutions as follows:

1. Students score of the test in morpheme was 4066, mean was 78.48, median was 79.14, modus was 82.7, interval was 4, total class was 7, range was 32. The researcher got highest score 92 and the lowest score 60.
2. Students score of test in Word Formation masteries was 4146, measn was 79.44, median was 79.02, modus was 83, range was 30, interval was 4, total class was 7, highest score was 92, lowest score 62.
3. There is sifgnificant correlation between morpheme and word Formation Masteries at the Eighth Semester of English Education Department Iain Padangsidimpuan. It could be explained from the calculating of product moment by getting correlation coefficients $r_{xy} = 0.79.299$ was more than $r_{table} = 0.277332$ on level 5 % and on level 10 % $r_{table} = 0.2306$. So, it means there wetre strong correlation between morpheme and word formation masteries at the eighth semester of English Education Department IAIN Padangsidimpuan.

B. Suggestions

After finishing the research, the researcher got much information in English teaching and learning. Therefore, the researcher has some suggestions as follow:

1. From the first conclusion it can be seen that the students' score is good. So. The researcher suggest to the English Teacher of IAIN Padangsidimpuan to apply innovative learning better than before. It can to increase English teaching and leaning from good become very good, especially in morpheme Mastery.
2. From the second conclusion, the researcher found that word formation mastery showed the result of mean was 79.44, median was79.02, modus was 83, range was 30, interval was 4, total class was 7, highest score was 92, lowest score 62. The result and hypothesis showed that morpheme and word formation masteries has significance correlation, and hypothesis is accepted.
3. From the last conclusion, the researcher can concluded morpheme and word formation masteries can be applied for all subjects and suitable in learning. It can be concluded that morpheme has the significance correlation to word formation masteries, especially in IAIN Padangsidimpuan.

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CURRICULUM VITAE

A. Identity

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1. Elementary School : SD Negeri 200207 Sitamiang baru (2002-2008)
2. Junior High School : SMP Negeri 11 Padangsidempuan (2008- 2011)
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APPENDIX 1

Instrument For Morpheme Mastery Before Valid

Name : _____

Nim : _____

Instruction :

- Do the test by your self.
- Doesn't effect to your value.
- Give mark (X) on the best your answer A, B, C or D.

A. Choose the correct suffix by crossing a, b, c or d.

1. A kinds of derivational morpheme is suffix. Which one of the following answer is kind of nominal suffix?
 - a. less c. ish
 - b. ful d. er
2. The suffix *er* in this word "reader" refers to...
 - a. Adjective c. Adverb
 - b. Verb d. Noun
3. There are words using suffix below. Which one is the correct word using nominal suffix ?
 - a. Fuller c. codify
 - b. Abnormal d. boyband
4. There are words using suffix below. Which one is the correct word using nominal suffix?
 - a. Fully c. Afterward
 - b. Washer d. Doubtful
5. The suffix *dom* in this word "Boredom" refers to....
 - a. Adjective c. Adverb
 - b. Noun d. Verb
6. The suffix *dom* in this word "Freedom" refers to...

- a. Adjective c. Adverb
b. Noun d. Verb
7. A kinds of derivational morpheme is suffix. Which one of the following answer is kind of nominal suffix?
- a. ment c. ish
b. able d. y
8. There are words using suffix below. Which one is the correct word using nominal suffix?
- a. Suitable c. agreement
b. Hardly d. hopeless
9. The suffix *ment* in this word “Establishment” refers to....
- a. Adverb c. Adjective
b. Verb d. Noun
10. There are examples of suffix below. Which one is the correct word using nominal suffix?
- a. Hopeless c. Milky
b. Dryness d. Acceptable
11. The correct nominal suffix is....
- a. ly c. ful
b. able d. ness
12. The suffix *ness* in the word “Badness” refers to...
- a. Verb c. Adverb
b. Noun d. Adjective
13. There are some examples of suffix below. Which one is the correct word using nominal suffix?
- a. Sleepy c. Beautiful
b. Civilize d. Dentist
14. The correct word using nominal suffix is....
- a. Dramatize c. Industrialist
b. Helpful d. Ticklish
15. Which nominal suffix is the correct answer?

- a. ship c. y
b. ish d. able
16. What is the kind of suffix in the word "Citizenship"?
- a. Verb c. Adjective
b. Noun d. Adverb
17. The word "Childhood" refers to...
- a. Verb c. Noun
b. Adjective d. Adverb
18. Which nominal suffix is the correct answer?
- a. able c. ify
b. hood d. ish
19. "Brotherhood" what is the suffix in the word?
- a. Brother c. hood
b. er d. brotherhood
20. What is the kind of suffix in the word "Sisterhood"?
- a. Verb c. Adjective
b. Noun d. Adverb
21. The word "handsome" is the word using suffix. What is the kinds of suffix in the word?
- a. Verb c. Adjective
b. Noun d. Adverb
22. Which nominal suffix is the correct answer?
- a. ish c. ful
b. ify d. some
23. The suffix *ify* in this word "Calcify" refers to...
- a. Noun c. Adjective
b. Verb d. Adverb
24. Which one of the following answer is kind of Verbal suffix?
- a. ish c. able
b. ly d. ize
25. What is the correct answer that illustrates verbal suffix?

- a. Follower c. Dentist
b. Civilize d. Sleepy
26. The correct word using verbal suffix is...
- a. qualify c. colourful
b. childhood d. soapy
27. What is the correct word that illustrates adjective suffix?
- a. Happiness c. friendship
b. Homeless d. breadth
28. What is the correct word that illustrates adjective suffix?
- c. Hopeless c. Announcer
d. Beautifully d. Friendship
29. What is the correct adjective suffix below?
- a. Ize c. less
b. Ward d. some
30. Derivational suffix forming adjective refers to....
- a. ize c. less
b. ness d. ify
31. The correct adjective suffix is....
- a. ly c. y
b. ward d. ful
32. What is the kind of suffix in this word” successful”?
- a. Adverb c. Noun
b. Adjective d. Verb
33. Which one the correct word that use adjective suffix below?
- a. Meddlesome c. improvement
b. Fruity d. glorify
34. A suffix forming adjective is....
- a. ify c. ish
b. dom d. y
35. The suffix *ish* refers to....
- a. Verb c. Nominal

- b. Adjective d. Adverb
36. Which one is the correct word using adjective suffix?
- a. Treatment c. Freshness
b. Boyish d. Motherhood
37. The suffix *ward* is kinds of suffix?
- a. Verbal c. Nominal
b. Adjectival d. Adverbial
38. The suffix *ward* in this word “Eastward” refers to....
- a. Verbal c. Adverb
b. Adjective d. Nominal
39. Complete the word “*after...*” to forming adverb!
- a. ly c. y
b. ward d. less
40. Complete the word ” *smooth ...*” to forming adverb!
- a. y c. less
b. ly d. ward
41. The correct word using adverbial suffix is...
- a. strongly c. goodly
b. falsehood d. productiveness
42. The correct adverb suffix is...
- a. y c. less
b. ly d. ness
- B. Choose the correct Prefix by crossing a, b, c or d.**
43. Which one of the following answer does refer to negative prefix?
- a. Anti c. mis
b. Over d. fore
44. The prefix *mis* in this word “ Misapply” refers to....
- a. Noun c. Verb
b. Adverb d. Adjective
45. Complete the word “.....continue” to forming a verb!
- a. Dis c. mis

- b. In d. fore
46. What is the prefix in this Italic word "*Displacement*" ?
- a. ment c. place
b. dis d. ce
47. Which one of the following answer does refer to negative prefix?
- a. Be c. Over
b. Under d. In
48. The correct word refers to Negative Prefix is...
- a. In c. fore
b. With d. anti
49. What is the prefix in the word "unaccountability"?
- a. ty c. y
b. una d. un
50. A word "Unfriend" refers to.....
- a. Noun c. Adverb
b. Verb d. Adjective
51. Which one of the following word refers to negative prefix?
- a. Uncalled c. withdrawing
b. Foretime d. biblical
52. Which one of the following answer refers to negative prefix?
- a. Fore c. With
b. Be d. Un
53. Which one is the correct word forming Adjective?
- a. Becalm c. forebear
b. Aglow d. anti-hero
54. The word "Anticommunist" refers to...
- a. Adverb c. verb
b. Noun d. comparative
55. What is the prefix in this word" withstanding"
- a. Stand c. wi
b. Ing d. with

56. Complete the word “.....*shot*” to forming verb!

- a. Fore c. in
- b. Un d. under

57. Complete the word “....*line*” to forming verb!

- a. With c. under
- b. Fore d. un

58. Complete the word “*cast*” to forming noun!

- a. Fore c. for
- b. Under d. in

59. What is the prefix in the word “ forbearance”?

- a. Ance c. for
- b. Fo d. bear

60. What is the prefix in the word “biannual”?

- a. al c.bi
- b. an d. bian

APPENDIX 2

Instrument for Word Formation mastery Before Valid

Name : _____

Nim : _____

Instruction :

- Do the test by your self.
- Doesn't effect to your value.
- Give mark (X) on the best your answer A, B, C or D.

A. Choose the correct suffix to forming noun word by crossing a, b, c, or d.

Example : Conferee + ence = Conference

1. Psycholog +
a. y c. er
b. ier d. ist
2. Public + ...
a. er c. ist
b. ment d. ness
3. hygient +
a. ly c. hood
b. ing d. ist
4. King +
a. ist c. ness
b. Dom d. ence
5. free +
a. less c. ment
b. en d. dom

B. Choose the appropriate suffix to the italic words in the following to complete the sentences by crossing a, b, c, or d.

6. Today is Sari's birth day, she gets many surprise from her friends and family. She invite us to participate with her *happy*.....
- a. Ness c. er
b. Ly d. ment
7. Every night he always goes to dischotheque. And comes back in the morning *drunken*.....
- a. ment c. ness
b. ous d. y
8. The government is concerns about this significant rise in *homless*.....
- a. ify c. ness
b. ize d. ous
9. We can share *kind*.....to the other people.
- a. ly c. er
b. ment d. ness
10. My father's death left me with a greet *empty*.....in my heart.
- a. Ment c. under
b. er d. ness
11. The hospital has the best medical *equip*.... and fast ambulance.
- a. ness c. ly
b. ment d. er
12. The film turned out to be a big *disappoint*..... It was really quite boring.
- a. Ly c. ment
b. y d. ness
13. It is my dream to work in the ship-building industry but unfortunately, there is so much *unemploy*..... around that I may have to alter my ambitions.
- a. ness c. ly
b. ment d. er

14. We didn't want our *driv*.... dashing for their freedom.
- a. ness c. ly
b. ment d. er
15. What is *relate*... between you and he?
- a. Ous c. ion
b. Ness d. ly
16. What kind of midificate.... is it?
- a. Ed c. or
b. Ion d ly
17. I get my mix... from my grandmother as my birthday prize
- a. Ness c. ment
b. er d. ous
18. We have to enter the meeting, because there will be a great decis....about then newest regulation for our company starts from this year.
- a. ion c. ment
b. er d. ous
19. Your create....is very amazing.
- a. ion c. ness
b. er d. ous
20. The importance of the role of educatate..... for students
- a. er c. ness
b. ion d. ous
21. I go to the market using public transportate.....
- a. er c. ion
b. ness d. ous
22. Our leader.... In my company is very care.
- a. er c. ship
b. ness d. ion
23. Rani has a Sister. Her sister works in the company. She usually tells us about her sister. Her sister is a manager and she gets *scholar*... from her company to continue her study.

- a. ly c. ize
b. ship d. er
24. Pertamina is opening recruitment for *intern....* Position.
a. ship c. ty
a. ion d. hood
25. I think it will be *use....* for us tomorrow.
a. less c. ness
b. ly d. ty
26. There is a title *likeli.....* of the president being re-elected.
a. ness c. ment
b. hood d. ous
27. Do you want to get a *scholar....?*
a. Ly c. ship
b. Ness d. ous
28. Your trial will separate the truths from the *false....*
b. ship c. ty
b. ion d. hood
29. The woman..... always supports their family .
a. ship c. ly
c. ion d. hood

C. Choose the correct suffix to forming Adjective word by crossing a, b, c, or d.

30. It's *point....* arguing with them. They are not going to change their mind.
a. Ness c. less
b. er d. y
31. The stock market crash of 1929 left my great –grandfather *penny....*
a. Ness c. ly
b. Less d. y
32. While you working at the nuclear power plant, you have to be extremely *care....*

- a. ly c. er
- b. y d. ful

33. It's totally *understand*.....to a world- renowned university.

- a. ness c. ment
- b. hood d. able

34. I think we should try something else, that strategy seem way to *risk*...

- a. ly c. er
- b. y d. ful

D. Choose the correct answer using adverb suffix to complete the word by crossing a, b, c, or d.

35. He is too shy to look people *direct*..... when he talks to them.

- a. ly c. ment
- b. ness d. y

36. It's a wonderful restaurant. Great food and excellent service. We *high*.....recomend it!

- a. er c. ly
- b. ment d. y

37. They are very *back*....than another students

- a. ment c. ward
- b. Ist d. ly

E. Choose the correct answer to forming verb word by crossing a, b, c, or d.

38. We will *simpli*....this task.

- a. ly c. ify
- b. y d. ize

39. Is your income being*stable* because of COVID 19 now?

- a. Dis c. mis

b. Un d. in

40. The Government *monopol*..... Indonesian trade.

a. ly c. ify

b. y d. ize

F. Complete the word with the correct prefix to complete the word brackets word by crossing a, b, c, or d.

41. Where the best restaurant to get an.....meal in your town/ city? (*expensive*)

a. In c. dis

b. Un d. mis

42. What generally.....fact do you know which would impress people during conversation? (*known*)

a. In c. mis

b. Un d. dis

43. In what ways do you consider yourself?(*conventional*)

a. Un c. mis

b. Dis d. for

44. Children are by nature.....*aware* of danger.

a. Un c. mis

b. Dis d. fore

45. You haveto me. (*understood*).

a. dis c. for

b. mis d. un

46. You know that some animals are breded(*sexual*).

a. un c. for

b. a d. mis

47. How long do we have to sit in this police station waiting. It's making me feel very..... watching all these criminals walking past. (*easy*)

a. In c. very
b. Mis d. un

48. Don't forget tothe modem when you have finished using it. (*connect*)

a. In- c. mis-
b. Un- d. dis-

49. We were very with the service at the restaurant. (*satisfied*)

a. Un c. fore
b. Mis d. dis

50. The whole dispute began after a small...over the money needed to finance the new company. (*agreement*)

a. un c. dis
b. in d. for

51. What are the symptoms ofdisorder?. (*polar*)

a. bi c. mi
b. di d. mis

52. You need to work on your orthography so you don'tthese word. (*spell*)

a. Un c. fore
b. Dis d. mis

53. I have my wallet. Have you seen it anywhere? (*placed*)

a. Un c. in
b. Mis d. fore

54. Oh, I'm sorry, I did not hear you correctly. Iyou. (*understood*)

- a. Un c. dis
- b. mis d. under

55. He is our.....in that factory. (man)

- a. dis c. fore
- b. un d. for

56. The disease without enough red blood cells is(*nemia*)

- a. Un c. a
- b. mis d. under

57. Dad checked the In the car yesterday. (*freeze*)

- a. Un c. for
- b. mis d. anti

58. I cooked banana cake yesterday. I am sad because my cake is(*cook*).

- a. mis c. over
- b. for d. dis

59. because we get paid.....I won't get another paycheck until next week.
(*weekly*)

- a. bi c. over
- b. for d. dis

60. They will.....Their future next week. (*tell*)

- a. for c. dis
- b. fore d. bi

APPENDIX 3

Instrument For Morpheme Mastery After Valid

Name : _____

Nim : _____

Instruction :

- Do the test by your self.
- Doesn't effect to your value.
- Give mark (X) on the best your answer A, B, C or D.

C. Choose the correct suffix by crossing a, b, c or d.

61. A kinds of derivational morpheme is suffix. Which one of the following answer is kind of nominal suffix?
- a. less c. ish
b. ful d. er
62. The suffix *er* in this word "reader" refers to...
- c. Adjective c. Adverb
d. Verb d. Noun
63. There are words using suffix below. Which oneis the correct word using nominal suffix?
- c. Fully c. Afterward
d. Washer d. Doubtful
64. The suffix *dom* in this word "Boredom" refers to....
- c. Adjective c. Adverb
d. Noun d. Verb
65. The suffix *dom* in this word "Freedom" refers to...
- c. Adjective c. Adverb
d. Noun d. Verb
66. A kinds of derivational morpheme is suffix. Which one of the following answer is kind of nominal suffix?

- c. ment c. ish
- d. able d. y

67. There are words using suffix below. Which one is the correct word using nominal suffix?

- c. Suitable c. agreement
- d. Hardly d. hopeless

68. The suffix *ment* in this word “Establishment” refers to....

- c. Adverb c. Adjective
- d. Verb d. Noun

69. There are examples of suffix below. Which one is the correct word using nominal suffix?

- c. Hopeless c. Milky
- d. Dryness d. Acceptable

70. The correct nominal suffix is....

- c. ly c. ful
- d. able d. ness

71. The suffix *ness* in the word “Badness” refers to...

- c. Verb c. Adverb
- d. Noun d. Adjective

72. There are some examples of suffix below. Which one is the correct word using nominal suffix?

- c. Sleepy c. Beautiful
- d. Civilize d. Dentist

73. The correct word using nominal suffix is....

- c. Dramatize c. Industrialist
- d. Helpful d. Ticklish

74. Which nominal suffix is the correct answer?

- c. ship c. y
- d. ish d. able

75. What is the kind of suffix in the word “Citizenship”?

- c. Verb c. Adjective

- d. Noun d. Adverb
76. The word “Childhood” refers to...
- c. Verb c. Noun
d. Adjective d. Adverb
77. Which nominal suffix is the correct answer?
- c. able c. ify
d. hood d. ish
78. What is the kind of suffix in the word” Sisterhood”?
- c. Verb c. Adjective
d. Noun d. Adverb
79. Which nominal suffix is the correct answer?
- c. ish c. ful
d. ify d. some
80. The suffix *ify* in this word “Calcify” refers to...
- c. Noun c. Adjective
d. Verb d. Adverb
81. Which one of the following answer is kind of Verbal suffix?
- c. ish c. able
d. ly d. ize
82. What is the correct answer that illustrates verbal suffix?
- c. Follower c. Dentist
d. Civilize d. Sleepy
83. The correct word using verbal suffix is...
- c. qualify c. colourful
d. childhood d. soapy
84. What is the correct word that illustrates adjective suffix?
- a. Hopeless c. Announcer
b. Beautifully d. Friendship
85. Derivational suffix forming adjective refers to....
- c. ize c. less
d. ness d. ify

86. The correct adjective suffix is....
- c. ly c. y
d. ward d. ful
87. What is the kind of suffix in this word” successful”?
- c. Adverb c. Noun
d. Adjective d. Verb
88. A suffix forming adjective is....
- c. ify c. ish
d. dom d. y
89. The suffix *ish* refers to....
- c. Verb c. Nominal
d. Adjective d. Adverb
90. Which one is the correct word using adjective suffix?
- c. Treatment c. Freshness
d. Boyish d. Motherhood
91. The suffix *ward* is kinds of suffix?
- c. Verbal c. Nominal
d. Adjectival d. Adverbial
92. The suffix *ward* in this word “Eastward” refers to....
- c. Verbal c. Adverb
d. Adjective d. Nominal
93. Complete the word “*after...*” to forming adverb!
- c. ly c. y
d. ward d. less
94. Complete the word ” *smooth ...*” to forming adverb!
- c. y c. less
d. ly d. ward
95. The correct word using adverbial suffix is...
- c. strongly c. goodly
d. falsehood d. productiveness

96. The correct adverb suffix is...

- c. y c. less
- d. ly d. ness

D. Choose the correct Prefix by crossing a, b, c or d.

97. Which one of the following answer does refer to negative prefix?

- a. Anti c. mis
- b. Over d. fore

98. The prefix *mis* in this word “ Misapply” refers to....

- c. Noun c. Verb
- d. Adverb d. Adjective

99. Complete the word “.....continue” to forming a verb!

- c. Dis c. mis
- d. In d. fore

100. What is the prefix in this Italic word “*Displacement*”?

- c. ment c. place
- d. dis d. ce

101. Which one of the following answer does refer to negative prefix?

- c. Be c. Over
- d. Under d. In

102. The correct word refers to Negative Prefix is...

- c. In c. fore
- d. With d. anti

103. A word “Unfriend” refers to.....

- c. Noun c. Adverb
- d. Verb d. Adjective

104. Which one of the following answer refers to negative prefix?

- c. Fore c. With
- d. Be d. Un

105. Which one is the correct word forming Adjective?

- c. Becalm c. forebear
d. Aglow d. anti-hero
106. The word “Anticommunist” refers to...
- c. Adverb c. verb
d. Noun d. comparative
107. What is the prefix in this word” withstanding”
- c. Stand c. wi
d. Ing d. with
108. Complete the word “.....*shot*” to forming verb!
- c. Fore c. un
d. Un d. under
109. Complete the word “*cast*” to forming noun!
- c. Fore c. for
d. Under d. in
110. What is the prefix in the word “biannual”?
- c. al c. bi
d. an d. bian

APPENDIX 4

Instrument for Word Formation mastery After Valid

Name : _____

Nim : _____

Instruction :

- Do the test by your self.
- Doesn't effect to your value.
- Give mark (X) on the best your answer A, B, C or D.

G. Choose the correct suffix to forming noun word by crossing a, b, c, or d.

Example :Conferee + ence = Conference

38. Psycholog +
- | | |
|--------|--------|
| c. y | c. er |
| d. ier | d. ist |
39. Public + ...
- | | |
|---------|---------|
| c. er | c. ist |
| d. ment | d. ness |
40. hygient +
- | | |
|--------|---------|
| c. ly | c. hood |
| d. ing | d. ist |
41. King +
- | | |
|--------|---------|
| c. ist | c. ness |
| d. Dom | d. ence |

42. free +
- c. less c. ment
d. en d. dom

H. Choose the appropriate suffix to the italic words in the following to complete the sentences by crossing a, b, c, or d.

43. Today is Sari's birth day, she gets many surprise from her friends and family. She invite us to participate with her *happy*.....
- c. Ness c. er
d. Ly d. ment
44. Every night he always goes to dischotheque. And comes back in the morning *drunken*.....
- c. ment c. ness
d. ous d. y
45. The government is concerns about this significant rise in *homless*.....
- c. ify c. ness
d. ize d. ous
46. My father's death left me with a greet *empty*.....in my heart.
- c. Ment c. under
d. er d. ness
47. The hospital has the best medical *equip*.... and fast ambulance.
- c. ness c. ly
d. ment d. er
48. The film turned out to be a big *disappoint*..... It was really quite boring.
- c. Ly c. ment
d. y d. ness
49. It is my dream to work in the ship-building industry but unfortunately, there is so much *unemploy*..... around that I may have to alter my ambitions.
- c. ness c. ly
d. ment d. er

50. We didn't want our driv..... dashing for their freedom.
- c. ness c. ly
d. ment d. er
51. I get my mix... from my grandmother as my birthday prize
- c. Ness c. ment
d. er d. ous
52. We have to enter the meeting, because there will be a great decis....about then newest regulation for our company starts from this year.
- c. ion c. ment
d. er d. ous
53. Your create....is very amazing.
- c. ion c. ness
d. er d. ous
54. The importance of the role of educatate..... for students
- c. er c. ness
d. ion d. ous
55. I go to the market using public transportate.....
- c. er c. ion
d. ness d. ous
56. Our leader.... In my company is very care.
- c. er c. ship
d. ness d. ion
57. Rani has a Sister. Her sister works in the company. She usually tells us about her sister. Her sister is a managerand she gets *scholar*... from her company to continue her study.
- c. ly c. ize
d. ship d. er
58. Pertamina is opening recruitment for *intern*.... Position.
- c. ship c. ty
b. ion d. hood

59. There is a title *likeli*..... of the president being re-elected.

c. ness c. ment

d. hood d. ous

60. Your trial will separate the truths from the *false*....

d. ship c. ty

d. ion d. hood

61. The woman..... always supports their family .

b. ship c. ly

e. ion d. hood

I. Choose the correct suffix to forming Adjective word by crossing a, b, c, or d.

62. It's *point*....arguing with them. They are not going to change their mind.

c. Ness c. less

d. er d. y

63. The stock market crash of 1929 left my great –grandfather *penny*....

c. Ness c. ly

d. Less d. y

64. While you working at the nuclear power plant, you have to be extremely *care*....

c. ly c. er

d. y d. ful

65. It's totally *understand*.....to a world- renowned university.

c. ness c. ment

d. hood d. able

66. I think we should try something else, that strategy seem way to *risk*...

c. ly c. er

d. y d. ful

J. Choose the correct answer using adverb suffix to complete the word by crossing a, b, c, or d.

67. He is too shy to look people *direct*..... when he talks to them.
c. ly c. ment
d. ness d. y
68. It's a wonderful restaurant. Great food and excellent service. We *high*.....recomend it!
c. er c. ly
d. ment d. y
69. They are very *back*....than another students
c. ment c. ward
d. Ist d. ly

K. Choose the correct answer to forming verb word by crossing a, b, c, or d.

33. We will *simpli*....this task.
a. ly c. ify
b. y d. ize
34. The Government *monopol*..... Indonesian trade.
a. ly c. ify
b. y d. ize

L. Complete the word with the correct prefix to complete the word brackets word by crossing a, b, c, or d.

35. Where the best restaurant to get an.....meal in your town/ city? (*expensive*)
c. In c. dis
d. Un d. mis

36. What generally.....fact do you know which would impress people during conversation? (*known*)

- c. In c. mis
- d. Un d. dis

37. In what ways do you consider yourself?(*conventional*)

- c. Un c. mis
- d. Dis d. for

38. Children are by nature.....*aware* of danger.

- c. Un c. mis
- d. Dis d. fore

39. How long do we have to sit in this police station waiting. It's making me fell very..... watching all these criminals walking past. (*easy*)

- c. In c. very
- d. Mis d. un

40. Don't forget tothe modem when you have finished using it. (*connect*)

- c. In- c. mis-
- d. Un- d. dis-

41. We were very with the service at the restaurant. (*satisfied*)

- c. Un c. fore
- d. Mis d. dis

42. The whole dispute began after a small...over the money needed to finance the new company. (*agreement*)

- b. un c. dis
- b. in d. for

43. You need to work on your orthography so you don'tthese word. (*spell*)

- c. Un c. fore

d. Dis d. mis

44. I have my wallet. Have you seen it anywhere? (*placed*)

c. Un c. in

d. Mis d. fore

45. Oh, I'm sorry, I did not hear you correctly. Iyou. (*understood*)

c. Un c. dis

d. mis d. under

46. The disease without enough red blood cells is(*nemia*)

c. Un c. a

d. mis d. under

47. Dad checked the In the car yesterday. (*freeze*)

c. Un c. for

d. mis d. anti

48. I cooked banana cake yesterday. I am sad because my cake is(*cook*).

a. mis c. over

b. for d. dis

49. because we get paid.....I won't get another paycheck until next week.
(*weekly*)

a. bi c. over

b. for d. dis

50. They will.....Their future next week. (*tell*)

a. for c. dis

b. fore d. bi

APPENDIX 5

Key Answer of Morpheme Mastery

1. D	11.B	21.D	31.D	41.D
2. D	12.D	22.B	32.C	42.A
3. B	13.C	23.A	33.B	43.B
4. B	14.A	24.A	34.B	44.D
5. B	15.B	25.C	35.A	45.B
6. A	16.C	26.D	36.B	46.B
7. C	17.B	27.B	37.C	47.D
8. D	18.B	28.C	38.C	48.D
9. B	19.D	29.B	39.A	49.A
10.D	20.B	30.B	40.B	50.C

APPENDIX 6

Key Answer of Word Formation Mastery

1. D	11.C	21.A	31.C	41.D
2. C	12.B	22.B	32.C	42.C
3. D	13.D	23.D	33.C	43.D
4. B	14.B	24.D	34.D	44.B
5. D	15.A	25.C	35.A	45.B
6. A	16.A	26.B	36.B	46.C
7. C	17.B	27.D	37.A	47.D
8. C	18.C	28.D	38.A	48.C
9. D	19.C	29.B	39.D	49.A
10.B	20.C	30.A	40.D	50.B

Appendix 8

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

A. Calculation of Morpheme Test

1. Mean score from score total (M_t)

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

$$M_t = \frac{1266}{30} = 42,2$$

2. Standard Deviation (SD_t)

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

$$SD_t = \sqrt{\frac{55836}{30} - \left(\frac{1266}{30}\right)^2}$$

$$SD_t = \sqrt{1861,2 - 42,2^2}$$

$$SD_t = \sqrt{1861,2 - 1780,84}$$

$$SD_t = \sqrt{80,36} = 8,96$$

3. Mean Score (M_p)

Item 1

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

$$M_{pl} = \frac{50+52+52+48+24+52+36+38+30+50+40+44+48+48+46+38+52+48+48+52+52+44+48}{23} =$$

$$M_{pl} = \frac{1036}{23} = 45,04$$

Item 2

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

$$M_{pl} = \frac{50+52+48+24+52+38+36+44+38+30+40+44+48+48+46+38+52+48+48+52+52+44+48}{23} =$$

$$M_{pl} = \frac{1020}{23} = 44,34$$

Item 3

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+38+30+40+44+48+46+38+52+40+48+42+48+52+16+52+44+48}{24} =$$

$$M_{pl} = \frac{1004}{24} = 41,83$$

Item 4

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

$$M_{pl} = \frac{50+52+52+48+24+52+50+40+44+48+48+46+38+52+40+48+42+26+34+52+48}{21}$$

$$M_{pl} = \frac{960}{21} = 45,71$$

Item 5

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

$$M_{pl} = \frac{50+52+48+36+44+38+50+40+44+48+46+38+52+48+48+52+34+52+44+48}{20}$$

$$M_{pl} = \frac{912}{20} = 45,6$$

Item 6

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

$$M_{pl} = \frac{52+52+38+50+40+48+46+53+48+42+42+52+48}{13}$$

$$M_{pl} = \frac{610}{13} = 46,92$$

Item 7

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+44+30+50+40+48+48+46+38+52+40+48+42+48+28+52+34+52+28}{25}$$

$$M_{pl} = \frac{1116}{25} = 44,64$$

Item 8

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

$$M_{pl} = \frac{50+52+52+48+24+52+36+44+50+40+44+48+48+46+52+48+28+52+16+52+48}{21}$$

$$M_{pl} = \frac{930}{21} = 44,25$$

Item 9

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

$$M_{pl} = \frac{50+52+52+52+38+44+38+30+40+44+48+48+46+38+52+40+48+42+52+34+52+44+48}{23} =$$

$$M_{pl} = \frac{1032}{23} = 44,86$$

Item 10

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{10}}$$

$$M_{pl} = \frac{50+52+52+24+52+38+44+38+50+40+44+48+40+48+48+52+52+44+48}{19}$$

$$M_{pl} = \frac{864}{19} = 45,47$$

Item 11

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{11}}$$

$$M_{pl} = \frac{50+52+34+38+30+50+44+48+48+52+42+48+28+52+52}{15}$$

$$M_{pl} = \frac{718}{15} = 47,87$$

Item 12

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{12}}$$

$$M_{pl} = \frac{50+52+52+48+52+38+44+38+50+40+44+48+46+38+52+40+48+42+48+52+16+52}{21} =$$

$$M_{pl} = \frac{990}{21} = 47,14$$

Item 13

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{13}}$$

$$M_{pl} = \frac{50+52+52+48+52+38+36+38+30+50+40+44+48+48+46+52+40+48+42+48+28+52+48+52+44}{25} =$$

$$M_{pl} = \frac{1126}{25} = 45,04$$

Item 14

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{14}}$$

$$M_{pl} = \frac{50+52+52+48+24+52+38+36+44+38+50+44+48+48+46+38+52+40+48+28+34+52+48}{23} =$$

$$M_{pl} = \frac{1010}{23} = 43,91$$

Item 15

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

$$M_{pl} = \frac{50+52+48+52+36+44+19+50+48+48+38+52+48+42+48+52+44+48}{18}$$

$$M_{pl} = \frac{838}{18} = 46,55$$

Item 16

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

$$M_{pl} = \frac{50+52+52+48+52+38+44+38+50+44+48+48+46+38+40+48+42+28+52+52+44+48}{22}$$

$$M_{pl} = \frac{1002}{22} = 45,54$$

Item 17

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

$$M_{pl} = \frac{50+52+52+48+24+52+38+44+38+50+44+48+48+46+52+48+42+48+28+32+34+52+44+48}{24}$$

$$M_{pl} = \frac{1062}{24} = 44,25$$

Item 18

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

$$M_{pl} = \frac{50+52+52+48+52+36+44+50+40+44+48+48+52+40+48+42+48+52+34+52+44+48}{22}$$

$$M_{pl} = \frac{1024}{22} = 46,54$$

Item 19

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

$$M_{pl} = \frac{50+52+52+48+52+38+44+38+30+50+40+48+38+52+40+48+42+34+44}{19}$$

$$M_{pl} = \frac{834}{19} = 43,89$$

Item 20

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+38+40+48+48+46+38+52+40+48+42+48+52+34+52+44+48}{23} =$$

$$M_{pl} = \frac{1046}{23} = 45,47$$

Item 21

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

$$M_{pl} = \frac{52+52+24+50+44+48+46+52+40+48+28+52+16+34}{14}$$

$$M_{pl} = \frac{586}{14} = 41,85$$

Item 22

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

$$M_{pl} = \frac{50+48+46+40+48+52+44}{7}$$

$$M_{pl} = \frac{328}{7} = 46,85$$

Item 23

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

$$M_{pl} = \frac{50+52+48+52+38+44+38+30+50+44+48+46+52+40+48+52+52+44+48}{19}$$

$$M_{pl} = \frac{876}{19} = 46,10$$

Item 24

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+44+30+50+44+48+48+46+44+52+40+48+42+52+52+44+48}{23} =$$

$$M_{pl} = \frac{1060}{23} = 46,08$$

Item 25

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

$$M_{pl} = \frac{50+52+52+48+52+36+44+50+40+44+48+48+46+38+52+40+48+42+48+52+34+52+44}{23} =$$

$$M_{pl} = \frac{1012}{23} = 44$$

Item 26

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{26}}$$

$$M_{pl} = \frac{50+52+52+48+52+48+36+44+48+30+50+40+44+48+48+46+38+48+42+48+52+48+40+36+40}{25} =$$

$$M_{pl} = \frac{1128}{25} = 45,12$$

Item 27

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{27}}$$

$$M_{pl} = \frac{52+52+48+52+38+36+44+38+30+40+44+48+46+38+52+40+48+42+48+28+52+16+34+52+48}{26} =$$

$$M_{pl} = \frac{1066}{26} = 41$$

Item 28

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{28}}$$

$$M_{pl} = \frac{50+52+52+48+24+48+36+44+30+50+40+44+48+46+38+52+40+48+52+36+52+24+34+52}{23} =$$

$$M_{pl} = \frac{1040}{23} = 45,21$$

Item 29

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{29}}$$

$$M_{pl} = \frac{50+52+52+24+52+38+30+50+40+48+48+46+52+42+48+28+16+34+52+48+34+44+36+48+44}{25} =$$

$$M_{pl} = \frac{1056}{25} = 42,24$$

Item 30

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{30}}$$

$$M_{pl} = \frac{52+52+48+24+52+38+36+44+30+50+48+48+46+38+52+40+48+42+48+28+52+34+52+48}{24} =$$

$$M_{pl} = \frac{1090}{24} = 45,41$$

Item 31

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

$$M_{pl} = \frac{50+52+52+48+24+52+36+38+30+50+40+44+48+48+46+38+52+48+48+52+52+44+48}{23} =$$

$$M_{pl} = \frac{1036}{23} = 45,04$$

Item 32

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

$$M_{pl} = \frac{50+52+48+24+52+38+36+44+38+30+40+44+48+48+46+38+52+48+48+52+52+44+48}{23} =$$

$$M_{pl} = \frac{1020}{23} = 44,34$$

Item 33

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+38+30+40+44+48+46+38+52+40+48+42+48+52+16+52+44+48}{24} =$$

$$M_{pl} = \frac{1004}{24} = 41,83$$

Item 34

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

$$M_{pl} = \frac{50+52+52+48+24+52+50+40+44+48+48+46+38+52+40+48+42+26+34+52+48}{21} =$$

$$M_{pl} = \frac{960}{21} = 45,71$$

Item 35

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

$$M_{pl} = \frac{50+52+48+36+44+38+50+40+44+48+46+38+52+48+48+52+34+52+44+48}{20} =$$

$$M_{pl} = \frac{912}{20} = 45,6$$

Item 36

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

$$M_{pl} = \frac{52+52+38+50+40+48+46+53+48+42+42+52+48}{13}$$

$$M_{pl} = \frac{610}{13} = 46,92$$

Item 37

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+44+30+50+40+48+48+46+38+52+40+48+42+48+28+52+34+52+28}{25} =$$

$$M_{pl} = \frac{1116}{25} = 44,64$$

Item 38

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

$$M_{pl} = \frac{50+52+52+48+24+52+36+44+50+40+44+48+48+46+52+48+28+52+16+52+48}{21}$$

$$M_{pl} = \frac{930}{21} = 44,25$$

Item 39

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

$$M_{pl} = \frac{50+52+52+52+38+44+38+30+40+44+48+48+46+38+52+40+48+42+52+34+52+44+48}{23} =$$

$$M_{pl} = \frac{1032}{23} = 44,86$$

Item40

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

$$M_{pl} = \frac{50+52+52+24+52+38+44+38+50+40+44+48+40+48+48+52+52+44+48}{19}$$

$$M_{pl} = \frac{864}{19} = 45,47$$

Item 41

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

$$M_{pl} = \frac{50+52+34+38+30+50+44+48+48+52+42+48+28+52+52}{15}$$

$$M_{pl} = \frac{718}{15} = 47,87$$

Item 42

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

$$M_{pl} = \frac{50+52+52+48+52+38+44+38+50+40+44+48+46+38+52+40+48+42+48+52+16+52}{21} =$$

$$M_{pl} = \frac{990}{21} = 47,14$$

Item 43

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+38+30+50+40+44+48+48+46+52+40+48+42+48+28+52+48+52+44}{25} =$$

$$M_{pl} = \frac{1126}{25} = 45,04$$

Item 44

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

$$M_{pl} = \frac{50+52+52+48+24+52+38+36+44+38+50+44+48+48+46+38+52+40+48+28+34+52+48}{23} =$$

$$M_{pl} = \frac{1010}{23} = 43,91$$

Item 45

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

$$M_{pl} = \frac{50+52+48+52+36+44+19+50+48+48+38+52+48+42+48+52+44+48}{18}$$

$$M_{pl} = \frac{838}{18} = 46,55$$

Item 46

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

$$M_{pl} = \frac{50+52+52+48+52+38+44+38+50+44+48+48+46+38+40+48+42+28+52+52+44+48}{22}$$

$$M_{pl} = \frac{1002}{22} = 45,54$$

Item 47

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

$$M_{pl} = \frac{50+52+52+48+24+52+38+44+38+50+44+48+48+46+52+48+42+48+28+32+34+52+44+48}{24} =$$

$$M_{pl} = \frac{1062}{24} = 44,25$$

Item 48

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

$$M_{pl} = \frac{50+52+52+48+52+36+44+50+40+44+48+48+52+40+48+42+48+52+34+52+44+48}{22}$$

$$M_{pl} = \frac{1024}{22} = 46,54$$

Item 49

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

$$M_{pl} = \frac{50+52+52+48+52+38+44+38+30+50+40+48+38+52+40+48+42+34+44}{19}$$

$$M_{pl} = \frac{834}{19} = 43,89$$

Item 50

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+38+40+48+48+46+38+52+40+48+42+48+52+34+52+44+48}{23} =$$

$$M_{pl} = \frac{1046}{23} = 45,47$$

Item 51

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

$$M_{pl} = \frac{52+52+24+50+44+48+46+52+40+48+28+52+16+34}{14}$$

$$M_{pl} = \frac{586}{14} = 41,85$$

Item 52

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

$$M_{pl} = \frac{50+48+46+40+48+52+44}{7}$$

$$M_{pl} = \frac{328}{7} = 46,85$$

Item 53

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

$$M_{pl} = \frac{50+52+48+52+38+44+38+30+50+44+48+46+52+40+48+52+52+44+48}{19}$$

$$M_{pl} = \frac{876}{19} = 46,10$$

Item 54

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

$$M_{pl} = \frac{50+52+52+48+52+38+36+44+30+50+44+48+48+46+44+52+40+48+42+52+52+44+48}{23} =$$

$$M_{pl} = \frac{1060}{23} = 46,08$$

Item 55

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

$$M_{pl} = \frac{50+52+52+48+52+36+44+50+40+44+48+48+46+38+52+40+48+42+48+52+34+52+44}{23} =$$

$$M_{pl} = \frac{1012}{23} = 44$$

Item 56

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

$$M_{pl} = \frac{50+52+52+48+52+48+36+44+48+30+50+40+44+48+48+46+38+48+42+48+52+48+40+36+40}{25} =$$

$$M_{pl} = \frac{1128}{25} = 45,12$$

Item 57

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

$$M_{pl} = \frac{52+52+48+52+38+36+44+38+30+40+44+48+46+38+52+40+48+42+48+28+52+16+34+52+48}{26} =$$

$$M_{pl} = \frac{1066}{26} = 41$$

Item 58

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

$$M_{pl} = \frac{50+52+52+48+24+48+36+44+30+50+40+44+48+46+38+52+40+48+52+36+52+24+34+52}{23} =$$

$$M_{pl} = \frac{1040}{23} = 45,21$$

Item 59

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

$$M_{pl} = \frac{50+52+52+24+52+38+30+50+40+48+48+46+52+42+48+28+16+34+52+48+34+44+36+48+44}{25} =$$

$$M_{pl} = \frac{1056}{25} = 42,24$$

Item 60

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

$$M_{pl} = \frac{52+52+48+24+52+38+36+44+30+50+48+48+46+38+52+40+48+42+48+28+52+34+52+48}{24} =$$

$$M_{pl} = \frac{1090}{24} = 45,41$$

4. Calculation of the formulation $r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$

Item 1

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

$$r_{pbi} = \frac{45,04 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{2,84}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,316 \times 2 = 0,632$$

Item 2

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

$$r_{pbi} = \frac{44,34 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{2,14}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,238 \times 1,52 = 0,363$$

Item 3

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

$$r_{pbi} = \frac{41,83 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{-0,37}{8,96} \sqrt{4}$$

$$r_{pbi} = -0,041 \times 2 = -0,082$$

Item 4

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

$$r_{pbi} = \frac{45,71 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{3,51}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,391 \times 1,52 = 0,594$$

Item 5

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

$$r_{pbi} = \frac{45,6 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{3,4}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,379 \times 1,52 = 0,576$$

Item 6

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

$$r_{pbi} = \frac{46,92 - 42,2}{8,96} \sqrt{\frac{0,4}{0,6}}$$

$$r_{pbi} = \frac{4,72}{8,96} \sqrt{0,66}$$

$$r_{pbi} = 0,526 \times 0,812 = 0,427$$

Item 7

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

$$r_{pbi} = \frac{44,64 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{2,44}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.272 \times 2 = 0.544$$

Item 8

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

$$r_{pbi} = \frac{44,28 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{2,08}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.232 \times 2 = 0.464$$

Item 9

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

$$r_{pbi} = \frac{44,86 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{2,66}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.296 \times 2 = 0.592$$

Item 10

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

$$r_{pbi} = \frac{45,47 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{3,27}{8,96} \sqrt{1,5}$$

$$r_{pbi} = 0.364 \times 1.22 = 0.445$$

Item 11

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

$$r_{pbi} = \frac{47,87 - 42,2}{8,96} \sqrt{\frac{0,5}{0,5}}$$

$$r_{pbi} = \frac{5,67}{8,96} \sqrt{1}$$

$$r_{pbi} = 0.632 \times 1 = 0.632$$

Item 12

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

$$r_{pbi} = \frac{47,14 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{4,94}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,551 \times 1,52 = 0,838$$

Item 13

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

$$r_{pbi} = \frac{45,04 - 42,2}{8,96} \sqrt{\frac{0,9}{0,1}}$$

$$r_{pbi} = \frac{2,84}{8,96} \sqrt{9}$$

$$r_{pbi} = 0,316 \times 3 = 0,948$$

Item 14

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

$$r_{pbi} = \frac{43,91 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{1,71}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,19 \times 2 = 0,38$$

Item 15

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

$$r_{pbi} = \frac{46,55 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{4,35}{8,96} \sqrt{1,5}$$

$$r_{pbi} = 0,485 \times 1,22 = 0,592$$

Item 16

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

$$r_{pbi} = \frac{45,54 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{3,34}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,372 \times 1,52 = 0,566$$

Item 17

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

$$r_{pbi} = \frac{44,25 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{2,05}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,228 \times 2 = 0,457$$

Item 18

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

$$r_{pbi} = \frac{46,54 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{4,34}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,484 \times 1,52 = 0,736$$

Item 19

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

$$r_{pbi} = \frac{43,89 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{1,69}{8,96} \sqrt{1,5}$$

$$r_{pbi} = 0,188 \times 1,22 = 0,23$$

Item 20

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

$$r_{pbi} = \frac{45,47 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{3,27}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,364 \times 2 = 0,729$$

Item 21

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

$$r_{pbi} = \frac{41,85 - 42,2}{8,96} \sqrt{\frac{0,5}{0,5}}$$

$$r_{pbi} = \frac{-0,35}{8,96} \sqrt{1}$$

$$r_{pbi} = -0,039 \times 1 = -0,039$$

Item 22

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

$$r_{pbi} = \frac{46,85 - 42,2}{8,96} \sqrt{\frac{0,4}{0,6}}$$

$$r_{pbi} = \frac{4,65}{8,96} \sqrt{0,67}$$

$$r_{pbi} = 0,518 \times 0,816 = 0,422$$

Item 23

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

$$r_{pbi} = \frac{46,10 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{3,9}{8,96} \sqrt{1,5}$$

$$r_{pbi} = 0,435 \times 1,22 = 0,531$$

Item 24

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

$$r_{pbi} = \frac{46,08 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{3,88}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,433 \times 2 = 0,866$$

Item 25

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

$$r_{pbi} = \frac{44 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{1,8}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,201 \times 2 = 0,402$$

Item 26

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

$$r_{pbi} = \frac{45,12 - 42,2}{8,96} \sqrt{\frac{0,9}{0,1}}$$

$$r_{pbi} = \frac{2,92}{8,96} \sqrt{9}$$

$$r_{pbi} = 0.325 \times 3 = 0.977$$

Item 27

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

$$r_{pbi} = \frac{41 - 42,2}{8,96} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{-1,2}{8,96} \sqrt{4}$$

$$r_{pbi} = -0.133 \times 2 = -0.267$$

Item 28

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

$$r_{pbi} = \frac{45,21 - 42,2}{8,96} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{3,01}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0.335 \times 1,52 = 0,509$$

Item 29

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

$$r_{pbi} = \frac{42,24 - 42,2}{8,96} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,04}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.004 \times 2 = 0.008$$

Item 30

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

$$r_{pbi} = \frac{45,41 - 42,2}{8,96} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{3,21}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.358 \times 2 = 0.716$$

Item 31

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

$$r_{pbi} = \frac{45,04 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{2,84}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,316 \times 2 = 0,632$$

Item 32

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

$$r_{pbi} = \frac{44,34 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{2,14}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,238 \times 1,52 = 0,363$$

Item 33

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

$$r_{pbi} = \frac{41,83 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{-0,37}{8,96} \sqrt{4}$$

$$r_{pbi} = -0,041 \times 2 = -0,082$$

Item 34

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

$$r_{pbi} = \frac{45,71 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{3,51}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,391 \times 1,52 = 0,594$$

Item 35

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

$$r_{pbi} = \frac{45,6 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{3,4}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,379 \times 1,52 = 0,576$$

Item 36

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$
$$r_{pbi} = \frac{46,92 - 42,2}{8,96} \sqrt{\frac{0,4}{0,6}}$$
$$r_{pbi} = \frac{4,72}{8,96} \sqrt{0,66}$$
$$r_{pbi} = 0,526 \times 0,812 = 0,427$$

Item 37

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$
$$r_{pbi} = \frac{44,64 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$
$$r_{pbi} = \frac{2,44}{8,96} \sqrt{4}$$
$$r_{pbi} = 0,272 \times 2 = 0,544$$

Item 38

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$
$$r_{pbi} = \frac{44,28 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$
$$r_{pbi} = \frac{2,08}{8,96} \sqrt{4}$$
$$r_{pbi} = 0,232 \times 2 = 0,464$$

Item 39

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$
$$r_{pbi} = \frac{44,86 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$
$$r_{pbi} = \frac{2,66}{8,96} \sqrt{4}$$
$$r_{pbi} = 0,296 \times 2 = 0,592$$

Item 40

$$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$$
$$r_{pbi} = \frac{45,47 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{3,27}{8,96} \sqrt{1.5}$$

$$r_{pbi} = 0.364 \times 1.22 = 0.445$$

Item 41

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

$$r_{pbi} = \frac{47,87 - 42,2}{8,96} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{5,67}{8,96} \sqrt{1}$$

$$r_{pbi} = 0.632 \times 1 = 0.632$$

Item 42

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

$$r_{pbi} = \frac{47,14 - 42,2}{8,96} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{4,94}{8,96} \sqrt{2.33}$$

$$r_{pbi} = 0.551 \times 1.52 = 0.838$$

Item 43

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

$$r_{pbi} = \frac{45,04 - 42,2}{8,96} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2,84}{8,96} \sqrt{9}$$

$$r_{pbi} = 0.316 \times 3 = 0.948$$

Item 44

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

$$r_{pbi} = \frac{43,91 - 42,2}{8,96} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{1,71}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.19 \times 2 = 0.38$$

Item 45

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

$$r_{pbi} = \frac{46,55 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{4,35}{8,96} \sqrt{1,5}$$

$$r_{pbi} = 0,485 \times 1,22 = 0,592$$

Item 46

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

$$r_{pbi} = \frac{45,54 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{3,34}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,372 \times 1,52 = 0,566$$

Item 47

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

$$r_{pbi} = \frac{44,25 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{2,05}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,228 \times 2 = 0,457$$

Item 48

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

$$r_{pbi} = \frac{46,54 - 42,2}{8,96} \sqrt{\frac{0,7}{0,3}}$$

$$r_{pbi} = \frac{4,34}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0,484 \times 1,52 = 0,736$$

Item 49

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

$$r_{pbi} = \frac{43,89 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{1,69}{8,96} \sqrt{1,5}$$

$$r_{pbi} = 0,188 \times 1,22 = 0,23$$

Item 50

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

$$r_{pbi} = \frac{45,47 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{3,27}{8,96} \sqrt{4}$$

$$r_{pbi} = 0,364 \times 2 = 0,729$$

Item 51

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

$$r_{pbi} = \frac{41,85 - 42,2}{8,96} \sqrt{\frac{0,5}{0,5}}$$

$$r_{pbi} = \frac{-0,35}{8,96} \sqrt{1}$$

$$r_{pbi} = -0,039 \times 1 = -0,039$$

Item 52

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

$$r_{pbi} = \frac{46,85 - 42,2}{8,96} \sqrt{\frac{0,4}{0,6}}$$

$$r_{pbi} = \frac{4,65}{8,96} \sqrt{0,67}$$

$$r_{pbi} = 0,518 \times 0,816 = 0,422$$

Item 53

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

$$r_{pbi} = \frac{46,10 - 42,2}{8,96} \sqrt{\frac{0,6}{0,4}}$$

$$r_{pbi} = \frac{3,9}{8,96} \sqrt{1,5}$$

$$r_{pbi} = 0,435 \times 1,22 = 0,531$$

Item 54

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

$$r_{pbi} = \frac{46,08 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{3,88}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.433 \times 2 = 0.866$$

Item 55

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

$$r_{pbi} = \frac{44 - 42,2}{8,96} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{1,8}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.201 \times 2 = 0.402$$

Item 56

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

$$r_{pbi} = \frac{45,12 - 42,2}{8,96} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2,92}{8,96} \sqrt{9}$$

$$r_{pbi} = 0.325 \times 3 = 0.977$$

Item 57

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

$$r_{pbi} = \frac{41 - 42,2}{8,96} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{-1,2}{8,96} \sqrt{4}$$

$$r_{pbi} = -0.133 \times 2 = -0.267$$

Item 58

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

$$r_{pbi} = \frac{45,21 - 42,2}{8,96} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{3,01}{8,96} \sqrt{2,33}$$

$$r_{pbi} = 0.335 \times 1,52 = 0,509$$

Item 59

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

$$r_{pbi} = \frac{42,24 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{0,04}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.004 \times 2 = 0.008$$

Item 60

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

$$r_{pbi} = \frac{45,41 - 42,2}{8,96} \sqrt{\frac{0,8}{0,2}}$$

$$r_{pbi} = \frac{3,21}{8,96} \sqrt{4}$$

$$r_{pbi} = 0.358 \times 2 = 0.716$$

Appendix 9

Table Validity of Morpheme Test

No	Mp	Mt	SDt	p	Q	$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$	Rt on 5% significant	Interpretation
1	45,04	42,2	8,96	0.8	0.2	0.632	0.361	Valid
2	44,34	42,2	8,96	0.7	0.3	0.363	0.361	Valid
3	41,83	42,2	8,96	0.8	0.2	-0,082	0.361	Invalid
4	45,71	42,2	8,96	0.7	0.3	0.594	0.361	Valid
5	45,6	42,2	8,96	0.7	0.3	0.576	0.361	Valid
6	46,92	42,2	8,96	0.4	0.6	0.427	0.361	Valid
7	44,64	42,2	8,96	0.8	0.2	0.544	0.361	Valid
8	44,25	42,2	8,96	0.8	0.2	0.464	0.361	Valid
9	44,86	42,2	8,96	0.8	0.2	0.592	0.361	Valid
10	45,47	42,2	8,96	0.6	0.4	0.445	0.361	Valid
11	47,87	42,2	8,96	0.5	0.5	0.632	0.361	Valid
12	47,14	42,2	8,96	0.7	0.3	0.838	0.361	Valid
13	45,04	42,2	8,96	0.9	0.1	0.948	0.361	Valid
14	43,91	42,2	8,96	0.8	0.2	0.38	0.361	Valid
15	46,55	42,2	8,96	0.6	0.4	0.592	0.361	Valid
16	45,54	42,2	8,96	0.7	0.3	0.566	0.361	Valid
17	44,25	42,2	8,96	0.8	0.2	0.457	0.361	Valid
18	46,54	42,2	8,96	0.7	0.3	0.736	0.361	Valid
19	43,89	42,2	8,96	0.6	0.4	0.23	0.361	Invalid
20	45, 47	42,2	8,96	0.8	0.2	0.729	0.361	Valid
21	41,85	42,2	8,96	0.5	0.5	-0,039	0.361	Invalid
22	46,85	42,2	8,96	0.4	0.6	0.422	0.361	Valid
23	46,10	42,2	8,96	0.6	0.4	0.531	0.361	Valid
24	46,08	42,2	8,96	0.8	0.2	0.866	0.361	Valid
25	44	42,2	8,96	0.8	0.2	0.402	0.361	Valid
26	45,12	42,2	8,96	0.9	0.1	0.977	0.361	Valid
27	41	42,2	8,96	0.8	0.2	-0.267	0.361	Invalid
28	45,21	42,2	8,96	0.7	0.3	0,509	0.361	Valid
29	42,24	42,2	8,96	0.8	0.2	0.008	0.361	Invalid
30	45,41	42,2	8,96	0.8	0.2	0.716	0.361	Valid
31	45,04	42,2	8,96	0.8	0.2	0.632	0.361	Valid
32	44,34	42,2	8,96	0.7	0.3	0.363	0.361	Valid
33	41,83	42,2	8,96	0.8	0.2	-0,082	0.361	Invalid
34	45,71	42,2	8,96	0.7	0.3	0.594	0.361	Valid
35	45,6	42,2	8,96	0.7	0.3	0.576	0.361	Valid
36	46,92	42,2	8,96	0.4	0.6	0.427	0.361	Valid
37	44,64	42,2	8,96	0.8	0.2	0.544	0.361	Valid
38	44,25	42,2	8,96	0.8	0.2	0.464	0.361	Valid
39	44,86	42,2	8,96	0.8	0.2	0.592	0.361	Valid
40	45,47	42,2	8,96	0.6	0.4	0.445	0.361	Valid

41	47,87	42,2	8,96	0.5	0.5	0.632	0.361	Valid
42	47,14	42,2	8,96	0.7	0.3	0.838	0.361	Valid
43	45,04	42,2	8,96	0.9	0.1	0.948	0.361	Valid
44	43,91	42,2	8,96	0.8	0.2	0.38	0.361	Valid
45	46,55	42,2	8,96	0.6	0.4	0.592	0.361	Valid
46	45,54	42,2	8,96	0.7	0.3	0.566	0.361	Valid
47	44,25	42,2	8,96	0.8	0.2	0.457	0.361	Valid
48	46,54	42,2	8,96	0.7	0.3	0.736	0.361	Valid
49	43,89	42,2	8,96	0.6	0.4	0.23	0.361	Invalid
50	45, 47	42,2	8,96	0.8	0.2	0.729	0.361	Valid
51	41,85	42,2	8,96	0.5	0.5	-0,039	0.361	Invalid
52	46,85	42,2	8,96	0.4	0.6	0.422	0.361	Valid
53	46,10	42,2	8,96	0.6	0.4	0.531	0.361	Valid
54	46,08	42,2	8,96	0.8	0.2	0.866	0.361	Valid
55	44	42,2	8,96	0.8	0.2	0.402	0.361	Valid
56	45,12	42,2	8,96	0.9	0.1	0.977	0.361	Valid
57	41	42,2	8,96	0.8	0.2	-0.267	0.361	Invalid
58	45,21	42,2	8,96	0.7	0.3	0,509	0.361	Valid
59	42,24	42,2	8,96	0.8	0.2	0.008	0.361	Invalid
60	45,41	42,2	8,96	0.8	0.2	0.716	0.361	Valid

Appendix 11

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

B. Calculation of Word Formation Mastery Test

5. Mean score from score total (M_t)

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

$$M_t = \frac{1388}{30} = 46.26$$

6. Standard Deviation (SD_t)

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

$$SD_t = \sqrt{\frac{67728}{30} - \left(\frac{1388}{30}\right)^2}$$

$$SD_t = \sqrt{2257.6 - 2139.98}$$

$$SD_t = \sqrt{117.62}$$

$$SD_t = 10.84$$

7. Mean Score (M_p)

Item 1

$$M_{\text{pl}} = \frac{\text{total score of students' score that true item answer}}{n_1}$$

$$M_{\text{pl}} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23} =$$

$$M_{\text{pl}} = \frac{1126}{23} = 48.95$$

Item 2

$$M_{\text{pl}} = \frac{\text{total score of students' score that true item answer}}{n_2}$$

$$M_{\text{pl}} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27} =$$

$$M_{\text{pl}} = \frac{1328}{27} = 49.18$$

Item 3

$$M_{\text{pl}} = \frac{\text{total score of students' score that true item answer}}{n_3}$$

$$M_{\text{pl}} = \frac{44+48+50+46+46+50+44+44+46+46+50+54+52+44+58+48+50+50+54+58+42+52+54}{23} =$$

$$M_{pl} = \frac{1130}{23} = 49.13$$

Item 4

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

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 5

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

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+44+58+48+50+50+50+54+58+42+50+52+54+50}{25}$$

$$M_{pl} = \frac{1218}{25} = 48.72$$

Item 6

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

$$M_{pl} = \frac{50+50+46+50+54+52+58+48+50+50+50+54+50+58+42+50+52+54+50}{19}$$

$$M_{pl} = \frac{968}{19} = 50.94$$

Item 7

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

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+50+58+42+52+50}{24}$$

$$M_{pl} = \frac{1166}{24} = 48.58$$

Item 8

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

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+42+50+52+54}{25}$$

$$M_{pl} = \frac{1212}{25} = 48.48$$

Item 9

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_9}$$

$$M_{pl} = \frac{50+46+44+46+54+52+58+50+10+54+50+58+42+50+8+54+50}{17}$$

$$M_{pl} = \frac{776}{17} = 45.64$$

Item 10

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{10}}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23} =$$

$$M_{pl} = \frac{1126}{23} = 48.95$$

Item 11

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{11}}$$

$$M_{pl} = \frac{50+50+46+50+54+52+58+48+50+50+50+54+50+58+42+50+52+54+50}{19} =$$

$$M_{pl} = \frac{968}{19} = 50.94$$

Item 12

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{12}}$$

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+44+58+48+50+50+50+50+58+42+50+52+54}{24} =$$

$$M_{pl} = \frac{1164}{24} = 48.5$$

Item 13

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{13}}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27} =$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 14

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{14}}$$

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+44+58+48+50+50+50+54+58+42+50+52+54+50}{25} =$$

$$M_{pl} = \frac{1218}{25} = 48.72$$

Item 15

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

$$M_{pl} = \frac{44+50+46+46+50+40+54+52+58+48+50+10+50+54+50+58+42+50+52+8+54+50}{22} =$$

$$M_{pl} = \frac{1016}{22} = 46.18$$

Item 16

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

$$M_{pl} = \frac{48+50+46+54+52+58+50+10+54+50+58+42+50+54+50}{15}$$

$$M_{pl} = \frac{726}{15} = 48.4$$

Item 17

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

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 18

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

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 19

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

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 20

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{20}}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23} =$$

$$M_{pl} = \frac{1126}{23} = 48.95$$

Item 21

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{21}}$$

$$M_{pl} = \frac{50+46+54+52+58+50+10+54+50+58+42+50+8+54+50}{15}$$

$$M_{pl} = \frac{686}{15} = 45.73$$

Item 22

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{22}}$$

$$M_{pl} = \frac{44+48+46+46+50+40+44+46+46+50+50+50+54+50+58+42+50+52+54+50}{23}$$

$$M_{pl} = \frac{1112}{23} = 48.34$$

Item 23

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{23}}$$

$$M_{pl} = \frac{50+50+46+50+54+52+58+48+50+50+50+54+50+58+42+50+52+54+50}{19}$$

$$M_{pl} = \frac{968}{19} = 50.94$$

Item 24

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{24}}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+50+58+42+52+50}{24} =$$

$$M_{pl} = \frac{1166}{24} = 48.58$$

Item 25

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{25}}$$

$$M_{pl} = \frac{48+50+46+54+52+58+50+10+54+50+58+42+50+8+54+50}{16}$$

$$M_{pl} = \frac{734}{16} = 45.87$$

Item 26

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{26}}$$

$$M_{pl} = \frac{48+50+46+46+40+44+44+46+46+50+54+52+44+58+48+50+50+54+50+58+42+50+52+50}{24}$$

$$M_{pl} = \frac{1172}{24} = 48.83$$

Item 27

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{27}}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 28

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{28}}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 29

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{29}}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 30

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n_{30}}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23} =$$

$$M_{pl} = \frac{1126}{23} = 48.95$$

Item 31

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

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23} =$$

$$M_{pl} = \frac{1126}{23} = 48.95$$

Item 32

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n32}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27} =$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 33

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

$$M_{pl} = \frac{44+48+50+46+46+50+44+44+46+46+50+54+52+44+58+48+50+50+54+58+42+52+54}{23} =$$

$$M_{pl} = \frac{1130}{23} = 49.13$$

Item 34

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

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27} =$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 35

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

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+44+58+48+50+50+50+54+58+42+50+52+54+50}{25} =$$

$$M_{pl} = \frac{1218}{25} = 48.72$$

Item 36

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n36}$$

$$M_{pl} = \frac{50+50+46+50+54+52+58+48+50+50+50+54+50+58+42+50+52+54+50}{19}$$

$$M_{pl} = \frac{968}{19} = 50.94$$

Item 37

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n37}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+50+58+42+52+50}{24} =$$

$$M_{pl} = \frac{1166}{24} = 48.58$$

Item 38

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n38}$$

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+42+50+52+54}{25} =$$

$$M_{pl} = \frac{1212}{25} = 48.48$$

Item 39

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n39}$$

$$M_{pl} = \frac{50+46+44+46+54+52+58+50+10+54+50+58+42+50+8+54+50}{17}$$

$$M_{pl} = \frac{776}{17} = 45.64$$

Item 40

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n40}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23} =$$

$$M_{pl} = \frac{1126}{23} = 48.95$$

Item 41

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n41}$$

$$M_{pl} = \frac{50+50+46+50+54+52+58+48+50+50+50+54+50+58+42+50+52+54+50}{19}$$

$$M_{pl} = \frac{968}{19} = 50.94$$

Item 42

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n42}$$

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+44+58+48+50+50+50+50+58+42+50+52+54}{24}$$

$$M_{pl} = \frac{1164}{24} = 48.5$$

Item 43

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n43}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 44

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n44}$$

$$M_{pl} = \frac{44+48+46+46+50+40+44+44+46+46+50+54+44+58+48+50+50+50+54+58+42+50+52+54+50}{25}$$

$$M_{pl} = \frac{1218}{25} = 48.72$$

Item 45

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n45}$$

$$M_{pl} = \frac{44+50+46+46+50+40+54+52+58+48+50+10+50+54+50+58+42+50+52+8+54+50}{22}$$

$$M_{pl} = \frac{1016}{22} = 46.18$$

Item 46

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n46}$$

$$M_{pl} = \frac{48+50+46+54+52+58+50+10+54+50+58+42+50+54+50}{15}$$

$$M_{pl} = \frac{726}{15} = 48.4$$

Item 47

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n47}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 48

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n48}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 49

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n49}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 50

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n50}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23} =$$

$$M_{pl} = \frac{1126}{23} = 48.95$$

Item 51

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n51}$$

$$M_{pl} = \frac{50+46+54+52+58+50+10+54+50+58+42+50+8+54+50}{15}$$

$$M_{pl} = \frac{686}{15} = 45.73$$

Item 52

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n52}$$

$$M_{pl} = \frac{44+48+46+46+50+40+44+46+46+50+50+50+54+50+58+42+50+52+54+}{23}$$

$$M_{pl} = \frac{1112}{23} = 48.34$$

Item 53

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n53}$$

$$M_{pl} = \frac{50+50+46+50+54+52+58+48+50+50+50+54+50+58+42+50+52+54+50}{19}$$

$$M_{pl} = \frac{968}{19} = 50.94$$

Item 54

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n54}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+50+58+42+52+50}{24} =$$

$$M_{pl} = \frac{1166}{24} = 48.58$$

Item 55

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n55}$$

$$M_{pl} = \frac{48+50+46+54+52+58+50+10+54+50+58+42+50+8+54+50}{16}$$

$$M_{pl} = \frac{734}{16} = 45.87$$

Item 56

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n56}$$

$$M_{pl} = \frac{48+50+46+46+40+44+44+46+46+50+54+52+44+58+48+50+50+54+50+58+42+50+52+50}{24} =$$

$$M_{pl} = \frac{1172}{24} = 48.83$$

Item 57

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n57}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 58

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n58}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 59

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n59}$$

$$M_{pl} = \frac{44+48+50+46+46+50+40+44+44+46+46+50+54+52+44+58+48+50+50+50+54+50+58+50+52+54+50}{27}$$

$$M_{pl} = \frac{1328}{27} = 49.18$$

Item 60

$$M_{pl} = \frac{\text{total score of students' score that true item answer}}{n60}$$

$$M_{pl} = \frac{44+48+50+46+50+40+44+44+46+50+52+44+58+50+50+54+50+58+42+50+52+54+50}{23}$$

$$M_{pl} = \frac{1126}{23} = 48.95$$

4. Calculation of the formulation $r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$

Item 1

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

$$r_{pbi} = \frac{48.95 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.69}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.248 \times 2 = 0.496$$

Item 2

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 3

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

$$r_{pbi} = \frac{49.13 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.87}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.264 \times 2 = 0.528$$

Item 4

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 5

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

$$r_{pbi} = \frac{48.72 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.46}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.226 \times 2 = 0.452$$

Item 6

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

$$r_{pbi} = \frac{50.94 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{4.68}{10.84} \sqrt{1.5}$$

$$r_{pbi} = 0.431 \times 1.22 = 0.525$$

Item 7

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

$$r_{pbi} = \frac{48.58 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.32}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.214 \times 2 = 0.428$$

Item 8

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

$$r_{pbi} = \frac{48.48 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.22}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.204 \times 2 = 0.408$$

Item 9

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

$$r_{pbi} = \frac{45.64 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{-0.62}{10.84} \sqrt{1.5}$$

$$r_{pbi} = -0.057 \times 1.22 = -0.069$$

Item 10

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

$$r_{pbi} = \frac{49.13 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.87}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.264 \times 2 = 0.528$$

Item 11

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

$$r_{pbi} = \frac{50.94 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{4.68}{10.84} \sqrt{1.5}$$

$$r_{pbi} = 0.431 \times 1.22 = 0.525$$

Item 12

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

$$r_{pbi} = \frac{48.5 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.24}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.206 \times 2 = 0.412$$

Item 13

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 14

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

$$r_{pbi} = \frac{48.72 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.46}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.226 \times 2 = 0.452$$

Item 15

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

$$r_{pbi} = \frac{46.18 - 46.26}{10.84} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{-0.08}{10.84} \sqrt{2.33}$$

$$r_{pbi} = -0.007 \times 1.526 = -0.0106$$

Item 16

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

$$r_{pbi} = \frac{48.4 - 46.26}{10.84} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{2.14}{10.84} \sqrt{1}$$

$$r_{pbi} = 0.197 \times 1 = 0.197$$

Item 17

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 18

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 19

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 20

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

$$r_{pbi} = \frac{49.13 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.87}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.264 \times 2 = 0.528$$

Item 21

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

$$r_{pbi} = \frac{45.73 - 46.26}{10.84} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{-0.53}{10.84} \sqrt{1}$$

$$r_{pbi} = -0.048 \times 1 = -0.048$$

Item 22

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

$$r_{pbi} = \frac{48.34 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.08}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.191 \times 2 = 0.382$$

Item 23

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

$$r_{pbi} = \frac{50.94 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{4.68}{10.84} \sqrt{1.5}$$

$$r_{pbi} = 0.431 \times 1.22 = 0.525$$

Item 24

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

$$r_{pbi} = \frac{48.58 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.32}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.214 \times 2 = 0.428$$

Item 25

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

$$r_{pbi} = \frac{45.87 - 46.26}{10.84} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{-0.39}{10.84} \sqrt{1}$$

$$r_{pbi} = -0.035 \times 1 = -0.035$$

Item 26

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

$$r_{pbi} = \frac{48.83 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.57}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.237 \times 2 = 0.474$$

Item 27

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 28

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 29

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 30

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

$$r_{pbi} = \frac{48.95 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.69}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.248 \times 2 = 0.496$$

Item 31

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

$$r_{pbi} = \frac{48.95 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.69}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.248 \times 2 = 0.496$$

Item 32

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 33

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

$$r_{pbi} = \frac{49.13 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.87}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.264 \times 2 = 0.528$$

Item 34

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 35

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

$$r_{pbi} = \frac{48.72 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.46}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.226 \times 2 = 0.452$$

Item 36

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

$$r_{pbi} = \frac{50.94 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{4.68}{10.84} \sqrt{1.5}$$

$$r_{pbi} = 0.431 \times 1.22 = 0.525$$

Item 37

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

$$r_{pbi} = \frac{48.58 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.32}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.214 \times 2 = 0.428$$

Item 38

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

$$r_{pbi} = \frac{48.48 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.22}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.204 \times 2 = 0.408$$

Item 39

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

$$r_{pbi} = \frac{45.64 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{-0.62}{10.84} \sqrt{1.5}$$

$$r_{pbi} = -0.057 \times 1.22 = -0.069$$

Item 40

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

$$r_{pbi} = \frac{49.13 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.87}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.264 \times 2 = 0.528$$

Item 41

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

$$r_{pbi} = \frac{50.94 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{4.68}{10.84} \sqrt{1.5}$$

$$r_{pbi} = 0.431 \times 1.22 = 0.525$$

Item 42

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

$$r_{pbi} = \frac{48.5 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.24}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.206 \times 2 = 0.412$$

Item 43

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 44

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

$$r_{pbi} = \frac{48.72 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.46}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.226 \times 2 = 0.452$$

Item 45

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

$$r_{pbi} = \frac{46.18 - 46.26}{10.84} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{-0.08}{10.84} \sqrt{2.33}$$

$$r_{pbi} = -0.007 \times 1.526 = -0.0106$$

Item 46

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

$$r_{pbi} = \frac{48,4 - 46,26}{10,84} \sqrt{\frac{0,5}{0,5}}$$

$$r_{pbi} = \frac{2,14}{10,84} \sqrt{1}$$

$$r_{pbi} = 0,197 \times 1 = 0,197$$

Item 47

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

$$r_{pbi} = \frac{49,18 - 46,26}{10,84} \sqrt{\frac{0,9}{0,1}}$$

$$r_{pbi} = \frac{2,92}{10,84} \sqrt{9}$$

$$r_{pbi} = 0,269 \times 3 = 0,807$$

Item 48

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

$$r_{pbi} = \frac{49,18 - 46,26}{10,84} \sqrt{\frac{0,9}{0,1}}$$

$$r_{pbi} = \frac{2,92}{10,84} \sqrt{9}$$

$$r_{pbi} = 0,269 \times 3 = 0,807$$

Item 49

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

$$r_{pbi} = \frac{49,18 - 46,26}{10,84} \sqrt{\frac{0,9}{0,1}}$$

$$r_{pbi} = \frac{2,92}{10,84} \sqrt{9}$$

$$r_{pbi} = 0,269 \times 3 = 0,807$$

Item 50

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

$$r_{pbi} = \frac{49.13 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.87}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.264 \times 2 = 0.528$$

Item 51

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

$$r_{pbi} = \frac{45.73 - 46.26}{10.84} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{-0.53}{10.84} \sqrt{1}$$

$$r_{pbi} = -0.048 \times 1 = -0.048$$

Item 52

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

$$r_{pbi} = \frac{48.34 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.08}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.191 \times 2 = 0.382$$

Item 53

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

$$r_{pbi} = \frac{50.94 - 46.26}{10.84} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{4.68}{10.84} \sqrt{1.5}$$

$$r_{pbi} = 0.431 \times 1.22 = 0.525$$

Item 54

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

$$r_{pbi} = \frac{48.58 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.32}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.214 \times 2 = 0.428$$

Item 55

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

$$r_{pbi} = \frac{45.87 - 46.26}{10.84} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{-0.39}{10.84} \sqrt{1}$$

$$r_{pbi} = -0.035 \times 1 = -0.035$$

Item 56

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

$$r_{pbi} = \frac{48.83 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.57}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.237 \times 2 = 0.474$$

Item 57

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 58

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 59

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

$$r_{pbi} = \frac{49.18 - 46.26}{10.84} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{2.92}{10.84} \sqrt{9}$$

$$r_{pbi} = 0.269 \times 3 = 0.807$$

Item 60

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

$$r_{pbi} = \frac{48.95 - 46.26}{10.84} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{2.69}{10.84} \sqrt{4}$$

$$r_{pbi} = 0.248 \times 2 = 0.496$$

APPENDIX 12**Table Validity of Word Formation Masteries Test**

No	Mp	Mt	SDt	p	q	$r_{pbi} = \frac{M_p - M_t}{SD_t} \sqrt{\frac{p}{q}}$	Rt on 5% significant	Interpretation
1	48.95	46.26	10.84	0.8	0.2	0.496	0.361	Valid
2	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
3	49.13	46.26	10.84	0.8	0.2	0.528	0.361	Valid
4	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
5	48.72	46.26	10.84	0.8	0.2	0.452	0.361	Valid
6	50.94	46.26	10.84	0.6	0.4	0.525	0.361	Valid
7	48.58	46.26	10.84	0.8	0.2	0.428	0.361	Valid
8	48.48	46.26	10.84	0.8	0.2	0.408	0.361	Valid
9	45.64	46.26	10.84	0.6	0.4	-0.069	0.361	Invalid
10	49.13	46.26	10.84	0.8	0.2	0.528	0.361	Valid
11	50.94	46.26	10.84	0.6	0.4	0.525	0.361	Valid
12	48.5	46.26	10.84	0.8	0.2	0.412	0.361	Valid
13	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid

14	48.72	46.26	10.84	0.8	0.2	0.452	0.361	Valid
15	46.18	46.26	10.84	0.7	0.3	-0.0106	0.361	Invalid
16	48.4	46.26	10.84	0.5	0.5	0.197	0.361	Invalid
17	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
18	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
19	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
20	49.13	46.26	10.84	0.8	0.2	0.528	0.361	Valid
21	45.73	46.26	10.84	0.5	0.5	-0.048	0.361	Invalid
22	48.34	46.26	10.84	0.8	0.2	0.382	0.361	Valid
23	50.94	46.26	10.84	0.6	0.4	0.525	0.361	Valid
24	48.58	46.26	10.84	0.8	0.2	0.428	0.361	Valid
25	45.87	46.26	10.84	0.5	0.5	-0.035	0.361	Invalid
26	48.83	46.26	10.84	0.8	0.2	0.474	0.361	Valid
27	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
28	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
29	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
30	48.95	46.26	10.84	0.8	0.2	0.496	0.361	Valid
31	48.95	46.26	10.84	0.8	0.2	0.496	0.361	Valid
32	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
33	49.13	46.26	10.84	0.8	0.2	0.528	0.361	Valid
34	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
35	48.72	46.26	10.84	0.8	0.2	0.452	0.361	Valid
36	50.94	46.26	10.84	0.6	0.4	0.525	0.361	Valid
37	48.58	46.26	10.84	0.8	0.2	0.428	0.361	Valid
38	48.48	46.26	10.84	0.8	0.2	0.408	0.361	Valid
39	45.64	46.26	10.84	0.6	0.4	-0.069	0.361	Invalid
40	49.13	46.26	10.84	0.8	0.2	0.528	0.361	Valid
41	50.94	46.26	10.84	0.6	0.4	0.525	0.361	Valid
42	48.5	46.26	10.84	0.8	0.2	0.412	0.361	Valid
43	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
44	48.72	46.26	10.84	0.8	0.2	0.452	0.361	Valid
45	46.18	46.26	10.84	0.7	0.3	-0.0106	0.361	Invalid
46	48.4	46.26	10.84	0.5	0.5	0.197	0.361	Invalid
47	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
48	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
49	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
50	49.13	46.26	10.84	0.8	0.2	0.528	0.361	Valid
51	45.73	46.26	10.84	0.5	0.5	-0.048	0.361	Invalid
52	48.34	46.26	10.84	0.8	0.2	0.382	0.361	Valid
53	50.94	46.26	10.84	0.6	0.4	0.525	0.361	Valid
54	48.58	46.26	10.84	0.8	0.2	0.428	0.361	Valid
55	45.87	46.26	10.84	0.5	0.5	-0.035	0.361	Invalid
56	48.83	46.26	10.84	0.8	0.2	0.474	0.361	Valid
57	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid

58	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
59	49.18	46.26	10.84	0.9	0.1	0.807	0.361	Valid
60	48.95	46.26	10.84	0.8	0.2	0.496	0.361	Valid

APPENDIX 14

Reliability Morpheme Mastery Test

To get reliability of the test, the researcher uses formula KR-20:

$$R_{11} = \left(\frac{n}{n-1} \right) \left(\frac{S_{t^2} - \sum pq}{S_t^2} \right)$$

$$N = 30$$

$$\sum X_t = 1266$$

$$\sum X_t^2 = 55836$$

$$\sum pq = 13.81$$

$$\begin{aligned} S_t^2 &= \sum X_t^2 - \left(\frac{\sum X_t}{N} \right)^2 \\ &= 55836 - \left(\frac{1266}{30} \right)^2 = 55836 - 42.2^2 = 55836 - 1780.84 = 54055.16 \end{aligned}$$

$$S_t^2 = \frac{\sum X_t^2}{N} = \frac{54055.16}{30}$$

$$S_t^2 = 1801.83$$

$$R_{11} = \left(\frac{n}{n-1} \right) \left(\frac{S_{t^2} - \sum pq}{S_t^2} \right)$$

$$\begin{aligned} R_{11} &= \left(\frac{30}{30-1} \right) \left(\frac{1801.83 - 13.81}{1801.83} \right) = \left(\frac{30}{29} \right) \left(\frac{1788.02}{1801.83} \right) \\ &= (1.03) (0.99) \\ &= 1.01 (r_{11} > 0.70 = \text{reliable}) \end{aligned}$$

Test is reliable if $r_{\text{count}} > r_{\text{tabel}}$. Based on calculation above, the test have very high reliable.

APPENDIX 16

Reliability Word Formation Mastery Test

To get reliability of the test, the researcher uses formula KR-20:

$$R_{11} = \left(\frac{n}{n-1} \right) \left(\frac{S_t^2 - \sum pq}{S_t^2} \right)$$

$$N = 30$$

$$\sum X_t = 1388$$

$$\sum X_t^2 = 67728$$

$$\sum pq = 23.56$$

$$\begin{aligned} S_t^2 &= \sum X_t^2 - \left(\frac{\sum X_t}{N} \right)^2 \\ &= 67728 - \left(\frac{1388}{30} \right)^2 = 67728 - 4626^2 = 67728 - 21399.876 = \\ &46328.124 \end{aligned}$$

$$S_t^2 = \frac{\sum X_t^2}{N} = \frac{46328124}{30}$$

$$S_t^2 = 1544.2708$$

$$R_{11} = \left(\frac{n}{n-1} \right) \left(\frac{S_t^2 - \sum pq}{S_t^2} \right)$$

$$\begin{aligned} R_{11} &= \left(\frac{30}{30-1} \right) \left(\frac{1544.2708 - 23.56}{1544.2708} \right) = \left(\frac{30}{29} \right) \left(\frac{15417.09}{1544.2708} \right) \\ &= (1.03) (0.98) \\ &= 1.009 (r_{11} > 0.70 = \text{reliable}) \end{aligned}$$

Test is reliable if $r_{\text{count}} > r_{\text{tabel}}$. Based on calculation above, the test have very high reliable.

APPENDIX 17

The Score of Morpheme Mastery

No	Initial of Students	Score
1	AC	82
2	AH	76
3	AA	68
4	AK	78
5	AM	76
6	AP	92
7	AS	88
8	AR	78
9	DSM	82
10	DS	70
11	EDF	78
12	FHY	80
13	HL	76
14	IPH	88
15	ISP	78
16	IRS	86
17	IH	82
18	IT	80
19	JSP	88
20	JA	72
21	LWS	80
22	MA	86
23	MR	86
24	MH	80
25	MDR	80
26	MS	76
27	NN	76
28	NH	82
29	NRH	82
30	NKH	84
31	OA	82
32	PR	74
33	RH	72
34	RAH	80
35	RS	76
36	RIH	86
37	RHS	70
38	RW	80
39	SSH	84
40	SS	78
41	SN	76

42	SRD	64
43	SH	80
44	SP	82
45	SR	86
46	S	72
47	SHD	76
48	TM	60
49	WY	74
50	WS	60
51	YIL	70
52	YM	74
Total Score		4066

APPENDIX 18

The Calculation of Statistic Mean, Median, Modus, Range, Total of Classes, and Interval, (Morpheme Mastery)

1. Score

60	60	64	68	70	70	70
72	72	72	74	74	74	76
76	76	76	76	76	76	76
78	78	78	78	78	80	80
80	80	80	80	80	80	82
82	82	82	82	82	82	84
84	86	86	86	86	86	88
88	88	92				

2. From data above, higher score = 92, and lower score = 60

3. Range

$$\begin{aligned} R &= \text{Higher score} - \text{Lower score} \\ &= 92 - 60 \\ &= 32 \end{aligned}$$

4. Total of Classes

$$\begin{aligned} K &= 1 + (3.3) \log n \\ &= 1 + (3.3) \log 52 \\ &= 1 + (3.3) 1,716 \\ &= 1 + 5.6628 \\ &= 6.6628 \\ &= 7 \end{aligned}$$

$$5. \text{ Interval (i)} = \frac{\text{Range}}{\text{Many class}} = \frac{32}{7} = 4.571 = 4$$

6. Mean Score

Interval	<i>Fi</i>	<i>Xi</i>	<i>Fixi</i>
----------	-----------	-----------	-------------

61- 65	3	63	189
66- 70	4	68	272
71- 75	6	73	438
76- 80	21	78	1638
81- 85	9	83	747
86 - 90	8	88	704
91- 95	1	93	93
<i>i</i> = 4	52	546	4081

$$\bar{X} = \frac{\sum fixi}{fi} = \frac{4081}{52} = 78.48$$

7. Median

$$\begin{aligned} \text{Me} &= \text{Bb} + i \left(\frac{n/2 - F}{fm} \right) \\ &= 75.5 + 4 \left(\frac{26 - 15}{12} \right) \\ &= 75.5 + 4 (0.91) \\ &= 75.5 + 3.64 \\ &= 79.14 \end{aligned}$$

8. Modus

$$\begin{aligned} \text{Mo} &= \text{tb} + \left[\frac{d_1}{d_1 + d_2} \right] i \\ &= 80.5 + \left[\frac{9}{9+6} \right] 4 \\ &= 80.5 + (0.6) 4 \\ &= 80.5 + 2.4 \\ &= 82.9 \end{aligned}$$

APPENDIX 19

The Score of Word Formation Mastery

No	Initial of Students	Score
1	AC	88
2	AH	72
3	AA	82
4	AK	72
5	AM	70
6	AP	94
7	AS	80
8	AR	92
9	DSM	72
10	DS	80
11	EDF	80
12	FHY	88
13	HL	80
14	IPH	80
15	ISP	76
16	IRS	72
17	IH	86
18	IT	86
19	JSP	92
20	JA	80
21	LWS	82
22	MA	88
23	MR	84
24	MH	80
25	MDR	76
26	MS	76
27	NN	80
28	NH	82
29	NRH	86
30	NKH	82
31	OA	82
32	PR	74
33	RH	70
34	RAH	88
35	RS	82
36	RIH	84
37	RHS	70
38	RW	80
39	SSH	82
40	SS	78
41	SN	78
42	SRD	70
43	SH	84
44	SP	84
45	SR	86

46	S	74
47	SDH	78
48	TM	62
49	WY	80
50	WS	64
51	YIL	80
52	YM	78
Total Score		4146

Appendix 20

The Calculation of Statistic Mean, Median, Modus, Range, Total of Classes, and Interval, (Word Formation Mastery)

1. Score

62	64	70	70	70	70	72
72	72	72	74	74	76	76
76	78	78	80	80	80	80
80	80	80	80	80	80	80
80	80	82	82	82	82	82
82	82	84	84	84	84	86
86	86	86	88	88	88	88
92	92	94				

2. From data above, higher score = 92, and lower score = 62

3. Range

$$\begin{aligned}
 R &= \text{Higher score} - \text{Lower score} \\
 &= 92 - 62 \\
 &= 30
 \end{aligned}$$

4. Total of Classes

$$\begin{aligned}
 K &= 1 + (3.3) \log n \\
 &= 1 + (3,3) \log 52 \\
 &= 1 + (3.3) 1,716 \\
 &= 1 + 5.6628 \\
 &= 6.6628 \\
 &= 7
 \end{aligned}$$

5. Interval (i) = $\frac{\text{Range}}{\text{Many class}} = \frac{30}{7} = 4.28 = 4$

6. Mean Score

Interval	<i>Fi</i>	<i>Xi</i>	<i>Fixi</i>
61- 65	2	63	126
66- 70	4	68	272
71- 75	6	73	438

76- 80	19	78	1482
81- 85	10	83	830
86 - 90	8	88	704
91- 95	3	93	279
<i>i</i> = 4	52	546	4131

$$\bar{X} = \frac{\sum fixi}{fi} = \frac{4126}{52} = 79.44$$

7. Median

$$\begin{aligned} \text{Me} &= \text{Bb} + i \left(\frac{n/2 - F}{fm} \right) \\ &= 75.5 + 4 \left(\frac{26 - 13}{9} \right) \\ &= 75.5 + 4 (0.88) \\ &= 75.5 + 3.52 \\ &= 79.02 \end{aligned}$$

8. Modus

$$\begin{aligned} \text{Mo} &= \text{tb} + \left[\frac{d_1}{d_1 + d_2} \right] i \\ &= 80.5 + \left[\frac{10}{10 + 6} \right] 4 \\ &= 80.5 + (0.625) 4 \\ &= 80.5 + 2.5 \\ &= 83 \end{aligned}$$

APPENDIX 21

The Correlation Between Morpheme and Word Formation Masteries

No	Initial of Students	X	Y	X ²	Y ²	XY
1	AC	82	88	6724	7744	7216
2	AH	76	72	5776	5184	5472
3	AA	68	82	4624	6724	5576
4	AK	78	72	6084	5184	5616
5	AM	76	70	5776	4900	5320
6	AP	92	94	8464	8836	8648
7	AS	88	80	7744	6400	7040
8	AR	78	92	6084	8464	7176
9	DSM	82	72	6724	5184	5904
10	DS	70	80	4900	6400	5600
11	EDF	78	80	6084	6400	6240
12	FHY	80	88	6400	7744	7040
13	HL	76	80	5776	6400	6080
14	IPH	88	80	7744	6400	7040
15	ISP	78	76	6084	5776	5928
16	IRS	86	72	7396	5184	6192
17	IH	82	86	6724	7396	7052
18	IT	80	86	6400	7396	6880
19	JSP	88	92	7744	8464	8096
20	JA	72	80	5184	6400	5760
21	LWS	80	82	6400	6724	6560
22	MA	86	88	7396	7744	7568
23	MR	86	84	7396	7056	7224
24	MH	80	80	6400	6400	6400
25	MDR	80	76	6400	5776	6080
26	MS	76	76	5776	5776	5776
27	NN	76	80	5776	6400	6080
28	NH	82	82	6724	6724	6724
29	NRH	82	86	6724	7396	7052
30	NKH	84	82	7056	6724	6888
31	OA	82	82	6724	6724	6724
32	PR	74	74	5476	5476	5476
33	RH	72	70	5184	4900	5040
34	RAH	80	88	6400	7744	7040
35	RS	76	82	5776	6724	6232
36	RIH	86	84	7396	7056	7224
37	RHS	70	70	4900	4900	4900
38	RW	80	80	6400	6400	6400
39	SSH	84	82	7056	6724	6888
40	SS	78	78	6084	6084	6084

41	SN	76	78	5776	6084	5928
42	SRD	64	70	4096	4900	4480
43	SH	80	84	6400	7056	6720
44	SP	82	84	6724	7056	6888
45	SR	86	86	7396	7396	7396
46	S	72	74	5184	5476	5328
47	SHD	76	78	5776	6084	5928
48	TM	60	62	3600	3844	3720
49	WY	74	80	5476	6400	5920
50	WS	60	64	3600	4096	3840
51	YIL	70	80	4900	6400	5600
52	YM	74	78	5476	6084	5772
Total Score		4066	4146	320284	332908	3255756

This is the calculation of r_{xy} :

$$N : 52$$

$$\sum X : 4066$$

$$\sum Y : 4146$$

$$\sum X^2 : 320284$$

$$\sum Y^2 : 332908$$

$$\sum XY : 3255756$$

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

$$= \frac{52.3255756 - (4066)(4146)}{\sqrt{\{52.320284 - (4066)^2\}\{52.332908 - (4146)^2\}}}$$

$$\frac{169299312 - 16857636}{\sqrt{\{16654768 - 16532356\}\{17311216 - 17189316\}}}$$

$$\frac{152441676}{\sqrt{\{122412\}\{121900\}}}$$

$$\frac{152441676}{\sqrt{14922}}$$

$$\frac{152441676}{1221556384}$$

$$= 0.79299$$

There the contribution of variable x to variable y as drawn below:

KP = the score of determine confidence

r = the score of coefficient correlation

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

$$= 0.79299 \times 100\%$$

$$= 79.299\%$$

Based on the calculate above it mean that is contribution studen's morpheme and word formation masteries is 79.299%

DOCUMENTATION



APPENDIX 4

Instrument for Word Formation mastery After Valid

Name: AP

Nim: 1620300086

Instruction :

- Do the test by your self.
- Doesn't effect to your value.
- Give mark (X) on the best your answer A, B, C or D.

A. Choose the correct suffix to forming noun word by crossing a, b, c, or d.

Example -Conferee + ence = Conference

1. Psycholog +
a. y
b. ier
c. er
d. ist
2. Public +
a. er
b. ment
c. hood
d. ist
3. Hygien +
a. ly
b. ing
c. ness
d. Dorn

5. Free +
a. less
b. en
c. ment
d. dom

B. Choose the appropriate suffix to the italic words in the following to complete the sentences by crossing a, b, c, or d.

6. Today is Sari's birth day, she gets many surprise from her friends and family. She invite us to participate with her *happy*.....
a. Ness
b. Ly
c. er
d. ment
7. Every night he always goes to discollotheque. And comes back in the morning *drunk*.....
a. ment
b. ous
c. ness
d. y
8. The government is concerns about this significant rise in *homeless*.....
a. ify
b. tze
c. ness
d. ous
9. My father's death left me with a great *empty*.....in my heart.
a. Ment
b. er
c. under
d. ness
10. The hospital has the best medical *equip*.....and fast ambulance.
a. ness
b. ment
c. ly
d. er
11. The film turned out to be a big *disappoint*..... It was really quite boring.
a. Ly
b. y
c. ment
d. ness
12. It is my dream to work in the ship-building industry, but unfortunately, there is so much *unemploy*..... around that I may have to alter my ambitions.
a. ness
b. ment
c. ly
d. er
13. We didn't want our *driv*.....dashing for their freedom.

22. There is a title *like*... of the president being re-elected.
a. ness b. hood c. ment d. ous

23. Your trial will separate the truths from the *false*...
a. ship b. ion c. ty d. hood

24. The woman... always supports their family.
a. -ship b. -ion c. -ly d. hood

C. Choose the correct suffix to forming Adjective word by crossing a, b, c, or d.

25. It's *point*... arguing with them. They are not going to change their mind.
a. Ness b. er c. less d. y

26. The stock market crash of 1929 left my great-grandfather *poor*...
a. Ness b. Less c. ly d. y

27. While you working at the nuclear power plant, you have to be extremely *care*...
a. ly b. y c. er d. ful

28. It's totally *understand*... to a world-renowned university.
a. ness b. hood c. ment d. able

29. I think we should try something else, that strategy seem way to *rid*...
a. ly b. y c. er d. ful

a. ness b. ment c. ly d. er
14. I got my mix... from my grandmother as my birthday prize
a. Ness b. er c. ment d. ous

15. We have to enter the meeting, because there will be a great *deets*... about then newest regulation for our company starts from this year.
a. ion b. er c. ment d. ous

16. Your create... is very *amazing*.
a. ion b. er c. ness d. ous

17. The importance of the role of educate... for students
a. er b. ion c. ness d. ous

18. I go to the market using public *transportate*...
a. er b. ness c. ous d. ion

19. Our leader... In my company is very *care*.
a. er b. ness c. ship d. ion

20. Rani has a *Sister*. Her sister works in the company. She usually tells us about her sister. Her sister is a manager and she gets *scholar*... from her company to continue her study
a. ly b. ship c. ize d. er

21. Permatama is opening recruitment for *intern*... Position
a. ship b. ion c. ty d. hood

D. Choose the correct answer using adverb suffix to complete the word by crossing a, b, c, or d.

30. He is too shy to look people *direct*... when he talks to them.
 a. ly b. ness c. ment d. y

31. It's a wonderful restaurant. Great food and excellent service. We *highly*... recommend it!
 a. er b. ment c. ly d. y

32. They are very *lack*... than another students
 a. ment b. lert c. ward d. ly

E. Choose the correct answer to forming verb word by crossing a, b, c, or d.

33. We will *simpli*... this task.
 a. ly b. y c. ify d. ize

34. The Government *monopol*... Indonesian trade.
 a. ly b. y c. ify d. ize

F. Complete the word with the correct prefix to complete the word brackets word by crossing a, b, c, or d.

35. Where the best restaurant to get an... meal in your town/ city? (*expensive*)
 a. In b. Un c. dis d. mis

36. What generally... fact do you know which would impress people during conversation? (*known*)
 a. In b. ~~Un~~ c. mis d. dis

37. In what ways do you consider yourself...? (*consideration*)
 a. ~~Un~~ b. Dis c. mis d. for

38. Children are by nature... aware of danger
 a. ~~Un~~ b. Dis c. mis d. fore

39. How long do we have to sit in this police station waiting. It's making me feel very... watching all these criminals walking past. (*very*)
 a. In b. Mis c. very d. un

40. Don't forget to... the modem when you have finished using it. (*connect*)
 a. In- b. Un- c. mis- d. dis-

41. We were very... with the service at the restaurant. (*satisfied*)
 a. Un b. Mis c. fore d. dis

42. The whole dispute began after a small... over the money needed to finance the new company. (*agreement*)
 a. un b. in c. dis d. for

43. You need to work on your orthography so you don't ... these word. (spell)

- a. Un
- b. Dis
- c. fore
- d. mis

44. I have ... my wallet. Have you seen it anywhere? (placed)

- a. Un
- b. Mis
- c. in
- d. fore

45. Oh, I'm sorry, I did not hear you correctly. I ... you. (understood)

- a. Un
- b. mis
- c. dis
- d. under

46. The disease without enough red blood cells is ... (nemia)

- a. Un
- b. mis
- c. a
- d. under

47. Dad checked the ... in the car yesterday. (freeze)

- a. Un
- b. mis
- c. for
- d. anti

48. I cooked banana cake yesterday. I am sad because my cake is ... (cook)

- a. mis
- b. for
- c. over
- d. dis

49. because we get paid, ... I won't get another paycheck until next week. (weekly)

- a. bi
- b. for
- c. over
- d. dis

50. They will ... Their future next week. (ed)

- a. for
- b. fore
- c. dis
- d. bi

APPENDIX 4

Instrument for Word Formation mastery After Vali

Name : RHP

Nim : 1620200015

Instruction :

- Do the test by your self.
- Doesn't effect to your value.
- Give mark (X) on the best your answer A, B, C or D.

A. Choose the correct suffix to forming noun word by crossing a, b, c, or d.

Example : Conferece + ence = Conference

1. Psycholog +

- a. y
- b. ier
- c. er
- d. ist

2. Public + ...

- a. er
- b. ment
- c. ist
- d. ness

3. Hygienic + ...

- a. ly
- b. hood
- c. hood
- d. ist

4. King + ...

- a. ist
- b. Dom
- c. ness
- d. etice

5. Free +

- a. less
- b. en
- c. ment
- d. dom

B. Choose the appropriate suffix to the italic words in the following to complete the sentences by crossing a, b, c, or d.

6. Today is Sari's birth day, she gets many surprise from her friends and family. She invite us to participate with her *happy*.....

- a. Ness
- b. Ly
- c. er
- d. ment

7. Every night he always goes to discoltoque. And comes back in the morning *drunken*.....

- a. ment
- b. ous
- c. ness
- d. y

8. The government is concern about this significant rise in *homeless*.....

- a. ify
- b. ize
- c. ness
- d. ous

9. My father's death left me with a great *empty*..... in my heart.

- a. Ment
- b. er
- c. under
- d. ness

10. The hospital has the best medical *equip* ... and fast ambulance.

- a. ness
- b. ment
- c. ly
- d. er

11. The film turned out to be a big *disappoint*..... It was really quite boring.

- a. Ly
- b. / y
- c. ment
- d. ness

12. It is my dream to work in the ship-building industry but unfortunately, there is so much *unemploy*..... around that I may have to alter my ambitions.

- a. ness
- b. ment
- c. ly
- d. er

13. We didn't want our driv..... dashing for their freedom.

22. There is a title *like*..... of the president being re-elected.
 a. ness c. ment
 b. hood d. ous
23. Your trial will separate the truths from the *false*.....
 a. ship c. ty
 b. ion d. hood
24. The woman..... always supports their family.
 a. ship c. ly
 b. ion d. hood
- C. Choose the correct suffix to forming Adjective word by crossing a, b, c, or d.
25. It's *point*..... arguing with them. They are not going to change their mind.
 a. Ness c. ly
 b. er d. y
26. The stock market crash of 1929 left my great-grandfather *poor*.....
 a. Ness c. ly
 b. Less d. y
27. While you working at the nuclear power plant, you have to be extremely *care*.....
 a. ly c. er
 b. y d. ul
28. It's totally *understand*..... to a world-renowned university.
 a. ness c. ment
 b. hood d. able
29. I think we should try something else, that strategy seem way to *risk*.....
 a. ly c. er
 b. y d. lul
14. I get my mix.... from my grandmother as my birthday prize
 a. Ness c. ment
 b. er d. ous
15. We have to enter the meeting, because there will be a great decis....about then newest regulation for our company starts from this year.
 a. ion c. ment
 b. er d. ous
16. Your create.... is very amazing.
 a. ion c. ness
 b. er d. ous
17. The importance of the role of educate..... for students
 a. er c. ness
 b. ion d. ous
18. I go to the market using public transportate.....
 a. er c. ion
 b. ness d. ous
19. Our leader.... In my company is very care.
 a. er c. ship
 b. ness d. ion
20. Rani has a Sister. Her sister works in the company. She usually tells us about her sister. Her sister is a manager and she gets *scholar* from her company to continue her study
 a. ly c. ize
 b. ship d. er
21. Pertamina is opening recruitment for *intern*.... Position.
 a. ship c. ty
 b. ion d. hood

D. Choose the correct answer using adverb suffix to complete the word

- by crossing a, b, c, or d.
30. He is too shy to look people *direct*..... when he talks to them.
a. ly b. ness c. ment d. y
31. It's a wonderful restaurant. Great food and excellent service. We
high.....recommend it!
a. ver b. mant c. ly d. y
32. They are very *back*.....than another students
a. ment b. Ist c. ward d. ly

E. Choose the correct answer to forming verb word by crossing a, b, c, or d.

33. We will *simpl*.....this task.
a. ly b. y c. fy d. ize
34. The Government *monopol*..... Indonesian trade.
a. ly b. y c. ify d. /ze

F. Complete the word with the correct prefix to complete the word brackets word by crossing a, b, c, or d.

35. Where the best restaurant to get an.....meal in your town/ city? (*expensive*)
a. in b. Un c. dis d. mis

36. What generally.....fact do you know which would impress people during conversation? (*known*)

a. In b. Un c. mis d. dis

37. In what ways do you consider yourself.....? (*conventional*)

a. Un b. Dis c. mis d. for

38. Children are by nature.....aware of danger.

a. Un b. Dis c. mis d. fore

39. How long do we have to sit in this police station waiting. It's making me feel very..... watching all these criminals walking past. (*easy*)

a. In b. Mis c. very d. un

40. Don't forget to.....the modem when you have finished using it. (*connect*)

a. In- b. Un- c. mis- d. his-

41. We were very.....with the service at the restaurant. (*satisfied*)

a. Un b. Mis c. fore d. his

42. The whole dispute began after a small.....over the money needed to finance the new company. (*agreement*)

a. un b. in c. dis d. for

43. You need to work on your orthography so you don't these word. (spell)

- a. Un
- b. Dis
- c. fore
- d. mis

44. I have my wallet. Have you seen it anywhere? (placed)

- a. Un
- b. Mis
- c. in
- d. fore

45. Oh, I'm sorry. I did not hear you correctly. I you. (understood)

- a. Un
- b. mis
- c. dis
- d. under

46. The disease without enough red blood cells is (nemia)

- a. Un
- b. mis
- c. under
- d. under

47. Dad checked the in the car yesterday. (freeze)

- a. Un
- b. mis
- c. for
- d. ghi

48. I coked banana cake yesterday. I am sad because my cake is (cook)

- a. mis
- b. for
- c. over
- d. dis

49. because we get paid I won't get another paycheck until next week. (weekly)

- a. bi
- b. for
- c. over
- d. dis

50. They will Their future next week. (ad)

- a. for
- b. fore
- c. dis
- d. bi



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

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Telephone (0634) 22080 Faximile (0634) 24022

07 Mei 2019

Nomor : 26 /ln.14/E.6a/PP.00.9/05/2019
Hal : Surat Keterangan Penelitian

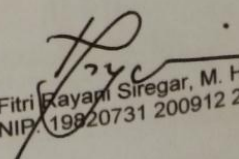
Ketua Program Studi Tadris /Pendidikan Bahasa Inggris Fakultas
Tarbiyah dan Ilmu Keguruan Institut Agama Islam Negeri Padangsidempuan
menerangkan bahwa:

Nama : Sri Agustina Situmorang
NIM : 14 203 00139
Fakultas/Jurusan : Tarbiyah dan Ilmu Keguruan / TBI
Alamat : Jln. S.M. Raja Gg. Air Bersih

adalah benar telah melakukan penelitian di Program Studi Tadris/ Pendidikan
Bahasa Inggris Fakultas Tarbiyah dan Ilmu Keguruan Institut Agama Islam
Negeri Padangsidempuan pada tanggal 11 April 2019 s/d 18 April 2019 dengan
judul "The Correlation Between Morpheme and Word Formation Masteries at
the Eight Semester of English Education Department IAIN
Padangsidempuan".

Demikian Surat Keterangan ini dibuat untuk dapat dipergunakan
seperlunya.

Ketua Program Studi Tadris Bahasa Inggris


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



KEMENTERIAN AGAMA REPUBLIK INDONESIA
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Nomor : B - 333 /in.14/E/TL.00/03/2019
Hal : Izin Penelitian
Penyelesaian Skripsi.

22 Maret 2019

Yth. Ketua Program Studi Tadris/Pendidikan Bahasa Inggris
Kota Padangsidimpuan

Dengan hormat, bersama ini kami sampaikan bahwa :

Nama : Sri Agustina Situmorang
NIM : 1420300139
Program Studi : Tadris/Pendidikan Bahasa Inggris
Fakultas : Tarbiyah dan Ilmu Keguruan
Alamat : Jln. SM. Raja Gg. Air Bersih

adalah Mahasiswa Fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidimpuan yang sedang menyelesaikan Skripsi dengan Judul "**The Correlation Between Morpheme and Word Formation Masteries at the Einqhth Semester of English Education Department IAIN Padangsidimpuan**".

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.



Dr. Lelya Hilda, M.Si.
NIP. 19720920 200003 2 002



KEMENTERIAN AGAMA
INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUNAN
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Jalan T. Rizal Nurdin Km. 4,5Sihitang 22733
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Nomor
Sifat
Lamp
Perihal

: 108/In.14/E.6a/PP.00.9/12/2017 Padangsidimpuan, Desember 2017
: Biasa
: -
: Pengesahan Judul dan Pembimbing Skripsi

Kepada Yth: Bapak/Ibu:

1. Dr. FitriadiLubis, M. Pd (Pembimbing I)
2. FitriRayaniSiregar,M.Hum (Pembimbing II)

Di
Padangsidimpuan

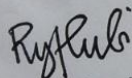
Assalamu 'Alaikum Wr. Wb

Dengan hormat, sehubungan dengan hasil sidang bersama tim pengkaji judul skripsi jurusan Tadris Bahasa Inggris (TBI) Fakultas Tarbiyah dan ilmu keguruan IAIN Padangsidimpuan, 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 : Sri Agustina Situmorang
Nim/Sem : 14 203 00139/ XI (Sebelas)
Jurusan : Tadris Bahasa Inggris
Judul Skripsi : **"The Correlation Between Morpheme And Word Formation Masteries at The Eight Semester of English Education Department IAIN Padangsidimpuan"**

Demikian kami sampaikan, atas perhatian dan kesediaanBapak/Ibu, kami ucapkan terimakasih.

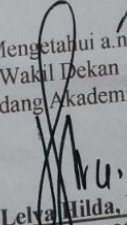
Ketua Jurusan Tadris Bahasa Inggris


RavendrianiFahmeiLubis, M. Ag
NIP. 19710510 200003 2 001

Sekretaris Jurusan TadrisBahasa `Inggris

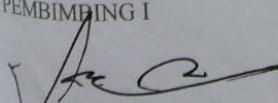

FitriRayaniSiregar, M. Hum
NIP. 19820731 200912 2 004

Mengetahui a.n
Wakil Dekan
Bidang Akademik

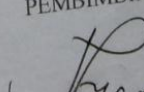

Dr. Lely Hilda, M.Si
NIP. 19720920 200003 2 002

PERNYATAAN KESEDIAAN SEBAGAI PEMBIMBING

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PEMBIMBING I


Dr. Fitriadi Lubis, M.Pd
NIP. 19620917 199203 1002

BERSEDIA/TIDAK BERSEDIA
PEMBIMBING II


FitriRayaniSiregar, M. Hum
NIP. 19820731 200912 2 004