THE CORRELATION BETWEEN VOCABULARY AND WRITING DESCRIPTIVE TEXT MASTERYAT THE GRADE VIII STUDENTS OF MTS AL-ANSOR PADANGSIDIMPUAN

THESIS

Submitted to the State Institute for Islamic Studies Padangsidimpuanas a Partial Fulfillment of the Requirement for Graduated Degree of Islamic Education (S.Pd) in English

Written by:

MARDIANA SIREGAR
Reg. Number. 16 20300054

ENGLISH EDUCATION DEPARTMENT

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

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Written by:

MARDIANA SIREGAR
Reg. Number. 16 203 00054

Advisor I

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

Advisor II

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

ENGLISH EDUCATION DEPARTMENT

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

LETTER OF AGREEMENT

Term : Munaqosyah

Item : 7 (seven) examplars

Padangsidimpuan,   December 2020

a.n. **Mardiana Siregar**

To: **Dean**

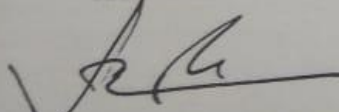**Tarbiyah and Teacher Training Faculty**

In-

Padangsidimpuan

Assalamu 'alaikum wr.wb.

After reading, studying and giving advice for necessary revision on the thesis belongs to **Mardiana Siregar**, entitled **"The Correlation Between Vocabulary and Writing Deacriptive Text Mastery at The Grade VIII Students of MTs Al-ansor Padangsidimpuan"**. We assumed that the thesis has been acceptable to complete the assignments and fulfill the requirements for graduate degree of Education (S.Pd) in English Education Department, Tarbiyah and Teacher Training Faculty in IAIN Padangsidimpuan.

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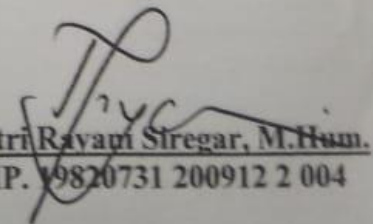
Wassalam 'alaikumwr.wb.

Advisor I

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

Advisor II

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

DECLARATION LETTER OF SELF THESIS COMPLETION

The name who signed here:

Name   : Mardiana Siregar

Reg. Number   : 15 203 00054

Faculty/Department   : Tarbiyah and Teacher Training Faculty/ TBI-2

The title of the Thesis   : **The Correlation Between Vocabulary and Writing Descriptive Text Mastery at The Grade VIII Students of MTs Al-ansor Padangsidimpuan**

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

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Padangsidimpuan,   December 2020

Declaration Maker

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EAD77AHF771839273

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ENAM RIBU RUPIAH

Mardiana Siregar
Reg. Number 16 203 00054

AGREEMENT PUBLICATION OF FINAL TASK
FOR ACADEMY CIVITY

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

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Registration Number : 16 203 00054
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Kind : Thesis

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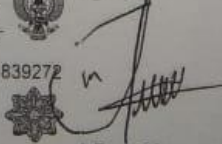
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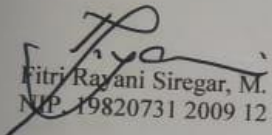The Signed,

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Reg. Num. 16 203 00054
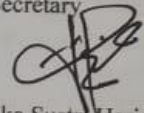
EXAMINERS
SCHOLAR MUNAQOSYAH EXAMINITION

Name   : Mardiana Siregar
Reg. No   : 16 203 00054
Faculty/ Department : Tarbiyah and Teacher Training Faculty/ English Education
                      Department
Thesis   : **"THE CORRELATION BETWEEN VOCABULARY
                      AND WRITING DESCRIPTIVE TEXT MASTERY AT
                      THE GRADE VIII STUDENTS OF MTS AL-ANSOR
                      PADANGSIDIMPUAN"**

Chief

Fitri Rayani Siregar, M. Hum
NIP. 19820731 2009 12 2 004

Secretary

Eka Sustri Harida, M. Pd
NIP. 19750917 200312 2 002

Members

Fitri Rayani Siregar, M. Hum
NIP. 19820731 2009 12 2 004

Eka Sustri Harida, M. Pd
NIP. 19750917 200312 2 002

Zainuddin, S.S., M. Hum
NIP. 19760610 200801 1 016

Sri Rahmadhani, M.Pd
NIDN. 2006058602

Proposed:
Place   : Padangsidimpuan
Date   : 23th of December 2020
Time   : 14.00- finish
Result/Mark : 82.50 (A)
IPK   : 3.65
Predicate   : Cumlaude

LEGALIZATION

Thesis

: The Correlation Between Vocabulary and Writing Descriptive Text Mastery at The Grade VIII Students of MTs Al-ansor Padangsidimpuan

Written By

: MARDIANA SIREGAR

Reg. No

: 16 203 00054

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

Padangsidimpuan, Desember 2020
Dean

Dr. Lelya Hilda., M.Si.
NIP. 19720920 200003 2 002

Name : MARDIANA SIREGAR
Reg, No : 16 203 00054
Faculty/Department : Tarbiyah and Teacher Training Faculty/TBI-2
Title of thesis : The Correlation between Vocabulary and Writing Descriptive Text Mastery at the Grade VIII Students of MTs al-ansor Padangsidimpuan in Academic Years 2019/2020

ABSTRACT

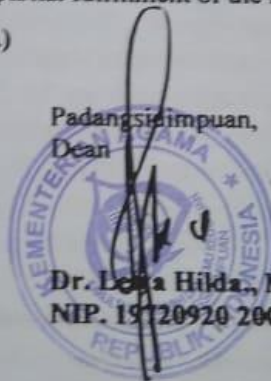This research focused about the correlation between vocabulary and writing descriptive text mastery at the grade VIII students of MTs Al-ansor Padangsidimpuan. some of the students get difficulties in expressing their ideas, they don't know the structure in sentences, they still have poor vocabularies and grammar, and most of the students did not like English lesson because its difficult for them.

This research has three formulation of the problem, they are: 1) how is the students, vocabulary of the VIII grade students of MTs Al-ansor Padangsidimpuan?. 2) how is the students, writing descriptive text of the VIII grade students of MTs Al-ansor Padangsidimpuan?. 3) is there a significant correlation between vocabulary and writing descriptive text mastery of the grade VIII students of MTs Al-ansor Padangsidimpuan?, the purposes of this research are to know the students' vocabulary of the eight grade students of MTs Al-Ansor Padangsidimpuan, to know the students' writing descriptive text mastery of the eight grade students of Mts Al-Ansor Padangsidmpuan, to find out if there is a significant correlation between students' vocabulary and writing descriptive text mastery of the eight grade students of MTs Al-Ansor Padangsidimpuan.

The type of research in this study is study quantitative. The population of this research was the grade VIII students of MTs Al-ansor Padangsidimpuan in academic years 2019/2020. Further, the sample of the research included 24 students. In collecting the data, the researcher used two tests they are vocabulary test with the form multiple choice and test of writing descriptive text with the form essay test. To know the correlation both of them used product moment correlation

After analyzing the data, the researcher found that mean score of vocabulary was 73.12 and mean score of writing descriptive text 71.41. The value of $r_{xy} = 0.898$ and $r_{table} = 0.423$ with the significat value 5%. The t_{count} was 10.27 with $t_{table} = 2.074$ or $t_{count} > t_{table.}$ It meant there is a significant correlation between vocabulary and writing descriptive text mastery of the grade VIII students of MTs Al-ansor Padangsidimpuan.

Key Words: Vocabulary, Writing Descriptive Text

Nama   **: MARDIANA SIREGAR**
Nim   **: 16 203 00054**
Fakultas/jurusan   **: Tarbiyah and Teacher Training Faculty/TBI-2**
Judul Skripsi   **: The Correlation Between Vocabulary and Writing Descriptive Text Mastery at The Grade VIII Students of MTs al-ansor Padangsidimpuan in Academic Years 2019/2020**

RINGKASAN

Penelitian ini pokus pada hubungan antara kosakata dan penguasaan menulis teks deskriptif pada kelas VIII MTs Al-ansor Padangsidimpuan. Beberapa siswa mengalami kesulitan dalam mengungkapkan ide-ide mereka, mereka tidak tahu struktur teks dalam kalimat, mereka masih kurang dalam kosakata dan tata bahasa, dan kebanyakan siswa tidak menyukai pelajaran bahasa inggris karena sulit bagi mereka.

Penelitian ini mempunyai tiga rumusan masalah, yaitu : 1) Bagaimana kosa kata siswa pada kelas VIII MTs Al-ansor Padangsidimpuan?, 2) Bagaimana menilis teks descriptive siswa pada kelas VIII MTs Al-ansor Padangsidimpuan?, 3) Apakah ada hubungan yang signifikan antara kosa kata dan menulis teks deskriptif siswa kelas VIII MTs Al-ansor Padagsidimpuan?. Tujuan penelitian ini adalah untuk mengetahui kemampuan kosakata siswa kelas VIII MTs Al-ansor Padangsidimpuan, untuk mengetahui kemampuan menulis teks deskriptif siswa kelas VIII MTs Al-ansor Padangsdimpuan, dan untuk mengetahui hubungan antara kosakata dan menulis teks deskriptif siswa kelas VIII MTs Al-ansor Padangsidimpuan.

Jenis penelitian ini adalah korelasi dengan menggunakan metode descriptif kuantitatif. Populasi pada penelitian ini adalah kelas VIII MTs Al-ansor Padangsidimpuan pada tahun ajaran 2019.2020. sample pada penelitian ini berjumlah 24 siswa. Untuk mengumpulkan data, peneliti menggunakan dua test yaitu tes kosa kata dalam bentuk pilihan berganda dan tes menulis deskriptif teks dalam bentuk esai. Dan untuk mengetahui hubungan antara keduanya menggunakan rumus korelasi product moment.

Setelah menganalisis data, peneliti menemukan rata-rata nilai kosa kata adalah 73.12 dan rata-rata menulis teks deskriptif adalah 71.41. nilai $r_{xy} = 0.898$ dan $r_{tabel} = 0.423$ dengan nilai signifikan 5%. Nilai $t_{hitung} = 10.27$ dengan $t_{tabel} = 2.074$ atau $t_{hitung} > t_{tabel}$ yang belarti ada hubungan yang signifikan antara kosa kata dan menulis teks deskriptif siswa kelas VIII MTs Al-ansor Padangsidimpuan .

Kata kunci : kosa kata, menulis teks deskriptif

ACKNOWLEDGMENT

بسم الله الرحمن الرحيم

In the name of Allah, the beneficent and the merciful

Alhamdulillahi Rabbil'alamin, is the perfect word the researcher can say to express the gratitude to Allah SWT who gives the researcher strenght, guide, bless and ability in finishing this thesis. Peace and blessing upon to the prophet Muhammad SAW, his family, his companies and his followers.

This thsis can not be completed without a great deal of help from many people, they are:

1. Mr. Fitriadi Lubis, M.Pd as my first advisor who has guided the researcher to complete this research and Mrs. Fitri Rayani Siregar, M.Hum., as my second advisor who has guided the researcher to complete this research and as the Dean of English Department.

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May Allah, the almighty bless them all, Aamiin.

May Allah, The Almighty bless them all, Aamiin.

Padamgsidimpuan,   December 2020
Researcher

Mardiana Siregar
Reg. No. 16 303 00054

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CHAPTER I
THE INTRODUCTION

A. Background of the Problem

Writing is one of four skills besides listening, speaking and reading that is learnt by students in the school. Writing is an activity in producing and transferring an idea from thought into a paper. Then, an idea should be developed into sentences and paragraphs. Writing is the process of creating, organizing, writing and polishing. It means in the first step, students create ideas. In the second step, they organizing the ideas, in the third step, they write a rough draft and finally polish their rough draft by editing and making revisions.

The English curriculum in Indonesia requires students to be able to write some kind of text like recount, report, discussion, explenation, exposition, new item, anecdote, narrative, procedure and descriptive. Descriptive text is one of the genres taught for eights grade students at Junior High School.

Descriptive text is a text that describes a particular peson, place or thing. It usually may engage its readers' mind or the readers may imagine what have been depicted for it is described by using sensory language involving five senses, that is sight, hearing, smell, teste, and touch. Desceriptive text is a text which says what a person or a thing is like. The purpose of descriptive text is to describe and reveal a particular person, place, or thing.

The function of descriptive text is to give information. Contextual factor or social context of this text is describing things. It can be person, animal, or place and specific things like our family or our friend. The social function of descriptive text is to describe particular person, place or things. So, when writing descriptive text, the writer must be able to explore their ideas into the text, in order to make good description and the reader can feel the object in the descriptive text.

The goverment has done various efforts to improve the quality of education, include curriculum development, procurement of textbook, school operational assistance and teacher quality improvment. However in reality, some of the VIII grade students of MTs Al- Ansor Padangsidimpuan still get difficulties inwriting descriptive text. It can be seen from interviewed with one of the English teacher in MTs Al-Ansor Padangsidimpuan. When writing descriptive text, some of the students get difficulties in expressing their ideas, they don't know the structure in sentences, they still have poor vocabularies and grammar.[1]Based on the interviewed with some of the VIII grade students of MTs Al-Ansor Padangsidimpuan, some of them said they did not like English lesson because its' difficult for them.

Writing becomes the most difficult skill in English language ''Writing is a difficult skill for native speakers and non- native speakers, because writer must be able write it in multiple issues such as content, organization, purpose,

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[1]English Teacher in class Vlll, Private Interview MTs Al-ansor Padangsidimpuan on 18 September 2020 on Friday at 10:00 pm.

vocabularies and mechanics such as punctuation, spelling, and capitalization''.[2]

Based on the syllabus order the students to be able in describing animal, person and thing and the students able to arranging the words that related with descriptive text like animal, person and thing to make became a descriptive text.

Writing skill is not only activities that transferring idea into written form, but also must be done in writing that is arranged properly. Brown mention that there are five aspects in writing which are: content, form, vocabulary, grammar or language use and mechanics. [3] Linse stated that the difficult in writing is the lack of vocabulary mastery.[4] it means to make easy in writing must mester the vocabulary first. Because the good writing need a lot of vocabulary.

Vocabulary is one aspect in English language that should be owned by every student to make them understand and master English language. It is a part of language that so important to all aspect in life. vocabulary can be defined as a group of words on certain language as a part in teaching and learning a foreign language or vocabulary is the collection of words. In learning English, vocabulary is the most important aspects which have to be

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[2]Yenni Rozimela Lailatul Husna, zainil, "An Analysis of Students' Writing Skill in Descriptive Text at Grade XI IPA 1 OF MAN 2 Padang," *English Language Teaching* 1, no. 2 (2013): 3, ejurnal.unp.ac.id.

[3]Fikri Asih Wigati, "Kesulitan Pada Aspek- Aspek Writing Mahasiswa Dengan English Proficiency Levels Yang Berbeda," *Jurnal Ilmiah Solusi* 1, no. 3 (2014): 47.

[4]Cindy Febilia Valentin, Desiani Natalina Muliasari, and Winthi Ananthia, "Developing Students' Critical Writing Skills of Elementary School by Using Vocabulary Chart," *Jurnal Pendidikan Dasar* 10, no. 2 (2018): 4, https://www.researchgate.net.

mastered by students, because it use in listening, speaking, reading and writing.

Vocabulary is important in writing. Without enlarging their vocabulary, students cannot write successfully. Therefore, anyone who learned a language successfully must enlarge her or his vocabulary mastery. Vocabulary use to make a sentence or to express opinion, thingking or ideas in the social communication.

Based on the explanation above, the researcher is interested in carrying out a research entitled: ``The Correlation Between Vocabulary and Writing Descriptive Text Mastery of The Grade VIII Students of MTs Al-Ansor Padangsisimpuan in the academic years 2019/2020``.

B. Identification of the Problem

Descriptive text is a text that describes a particular peson, place or thing. It usually may engage its readers' mind or the readers may imagine what have been depicted for it is described by using sensory language involving five senses, that is sight, hearing, smell, teste, and touch.

Writing become the most difficult skill for students because they must pay attention to grammar, vocabulary, sentence structure, content, form, organization, purpose and mechanics such as punctuaton, spelling and capitalization.

C. Limitation of the Problem

Writing become the most difficult material for students because they must pay attention to garrammar, vocabulary, sentence structure, content, form, organization, purpose and mechanics such as punctuaton, spelling and capitalization.

In this research the researcher does not discuss all the factors of writing. but the researcher only take vocabulary for discussing and the vocabulari is about person.

There are reasons of tooking vocabulary in discussing they are: first, Vocabulary is capital for writing, without vocabulary the students can not writing descriptive text. the second, Vacabulary make the students able to understand their writing.

D. Definition of Operational Variable

1. Vocabulary Mastery

Vocabulary is the collection of words in English language and important subject in language learning, every word in English is called vocabulary. there ara many vocabulary, but in this research discussed vocabulary about people.

2. Writing Descriptive Text

Writing description text is writing which use to describe about something, like animal, person, and things, or other physical items as well as object whose features are concrete and touchable. In this research the material of descriptive text will focus to describe about people.

E. Formulation of the Problem

Based on the background, some problems can be formulated as follows:

1. How is the students vocabulary of the eight grade students of MTs Al-Ansor Padangsidimpuan?

2. How is the students' writing descriptive text mastery of the eight grade students of Mts Al-Ansor Padangsidimpuan.

3. Is there a significant correlation between students' vocabulary and their writing descriptive text mastery of the eight grade students of MTs Al-Ansor Padangsidimpuan?

F. Purpose of the Reseach

Based on the formulation of the problem, the researcher determiners the objectives of this reseach as follow:

1. To know the students' vocabulary of the eight grade students of MTs Al-Ansor Padangsidimpuan.

2. To know the students' writing descriptive text mastery of the eight grade students of Mts Al-Ansor Padangsidmpuan.

3. To find out if there is a significant correlation between students' vocabulary and writing descriptive text mastery of the eight grade students of MTs Al-Ansor Padangsidimpuan.

G. Significances of the Reseach

The significances of the research is expected to be useful for:

1. The Teacher : to give information for the English teacher in writing descriptive text.

2. The Headmaster : to give information for the Headmaster about students ability in writing descriptive text.

3. The Readers : to give information and the readers can use for references in the research future.

H. The Sistematic of Thesis

The systematic of this research were divided into five chapters, each chapter consisted of many sub chapters with details as follow:

The first chapter consist of introduction, background of the problems, limitation of the problems, purpose of the problems, significances ot the research, and thesis outline. This research is expected tobe useful at least three domains, they are for the science of education, students, and for the next researchs.

The second chapter consist of the theoritical description, review of related findings, framework of thinking and hypotheses in this research, researcher has hypotheses that the significant correlation between vocabulary and writing descriptive text mastery at the grade VIII students of MTs Al-ansor Padangsidimpuan.

The third chapter consists of the research methodology, place and time of the research, research method, population and samples, definition of

operational variables, instrument of research, validity and reliability of instrument, and techniques of analysis data.

The fourth chapter consists of the description of data, analysis of the data, the discussion of the result and limitation of the problem. The fifth chapter consist of the conculation and suggestion.

CHAPTER II

LITERATURE REVIEW

A. Theoritical Description

    1) **Vocabulary**

a. **Definition of Vocabulary**

        Vocabulary is the collection of words. Vocabulary become one aspect should be owned by every student to make them understand and master English language. It is a part of language that so important to all aspect in life.

        Vocabulary is a set of words that are known by someone or another entity, or part of a particular language. A person's vocabulary is defined as a set of all the words understood by that person or all the words that person is likely to use to construct a new sentence. A person's general vocabulary wealth is considered to be a picture of his level of education.[5]

        According to Jack C. Richards and Willy A. Renandya statet ''vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read and write.''[6]It means, that the first thing we have to learn English is we have to mastery the vocabulary, because with vocabulary we can learn language skill easier and will be useful for the process of achieving language teaching objectives.

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[5]Sri Devi Arista, *1 Jam Menguasai Vocabulary Bahasa Inggris Secara Otodidak* (Tanggerang: Lembar Puataka Indonesia, 2015), p.9.
[6]Liza Fauziah, "The Effectiveness of Teaching Vocabulary Using Picture" (Syarif Hidayatullah, 2011), p.8, Repository.uinjkt.ac.id.

Howard Jackson stated "Vocabulary is a perspective collection of the words that exist in English language".[7]Meanwhile, Hornby stated vocabulary as ''the total number of words in a language; vocabulary is a list of words with their meaning'' it means every words in English language is called vocabulary.

Based on the definitions above, it can be conclude that vocabulary is the collection of words in English language and important subject in language learning. To master the four language skill like listening, speking, reading and writing we must learn the vocabulary first.

Vocabulary became one of aspects for improving communication skill. Without having enough vocabularies, of course we get difficult to make communication with the other people.if we lack vocabulary will face a lot of problems , and if we have enouhg vocabulary we will easy to communicate with other.

Norbert Schmitt states that vocabulary is a basis of a language, it is very important to be master first. We cannot speak well and understand written material if we do not master it, no matter how successfully the sound of the foreign language is mastered, without words to express the wider range of meanings, communication of foreign language just cannot happen in meaningful way.[8]

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[7]Howard Jackson, *Words, Meaning and Vocabulary* (London: Casell, 2000), p.118.
[8]Dzur Rif'ah Mahmudah, "The Correlation Between Students' Writing Ability and Their Vocabulary Mastery," *Exposure Journal* 3, no. 2 (2014): p.194.

Vocabulary also can be defined as '' word we must know to communicate effectively''[9] It means vocabulary is very important because to make communication with the other people we must know the vocabulary.

b. **Purpose of Vocabulary**

In general, the purpose of learning English in Junior High School is to develop students' communication skill both orally and writing which includes skills in listening, speaking, reading and writing. The four skills will be achieved if the students have adequate vocabulary.

Vocabulary plays the important role in language learning. Vocabulary is also an essential skill for learning to listen, speak, read, and write. Without sufficient vocabulary, people can not communicate and express their feeling both in form of spoken and written effectively. The more people master vocabulary the more they can listen, speak, read, and write as they want.

Thornbury stated ''without vocabulary nothing can be conveyed''[10]. It means vocabulary is the most important in english language because vocabulary can improve the four language skills.

Vocabulary is a vital aspect in language, it appears in every skill of language listening, speaking, reading and writing skill. Mastering

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[9]Haeruddin Syafrizal, "The Implementation of Vocabulary Building Strategy in Teaching English Vocabulary to Yung Learners," *English Language Teaching* 5, no. 1 (2018): 41.
[10]Satuna Indah Wardani, "Improving Students Vocabulary Mastery Using Word Mapping Strategy," *OKARA* 1, no. 2 (2015): 132, Repository.unpas.ac.id.

vocabulary is very important for the students who learn English as a foreign language.

c. Kinds of Vocabulary

There are many kinds of vocabulary. According to Harmer, ''there are two kinds of vocabulary, they are active vocabulary and passive vocabulary.''[11]

> To Harmer, active vocabulary refers to words that students have learned and are expected to able to use in communication, while passive vocabulary refers to words that students will recognize when they meet them, although they will probably not able to use them.[12]

> Mahmud Nurdin says that active vocabulary is the function words of a language which are learned, and be able to understand in speaking, reading and writing. While passive vocabulary refers to words which people will recognize when they meet them in a reading and listening, but they will probably not be able to produce them.[13]

> According to Neufelds and Guralnik, active vocabulary is all the words recognized and undesrstood by a particular person, although not necessarily used. While passive vocabulary is an interrelated group of nonverbal symbols, signs gestures and so on. It is used for communication or expression in a particular art, skil, etc.[14]

From the explanation above, the type of vocabulary can be classified into two these are active and passive vocabulary. Active vocabulary used in speaking and writing skills. Then passive vocabulary used in listening and reading skills.

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[11]Fathul Munir, "The Effectiveness of Teaching Vocabulary by Using Cartoon Film toward Vocabulary Mastery of EFL Students," *JELTL* 1, no. 1 (2016): p.9, http://jeltl.org.jeltiarcleview.com.

[12]Hernawati, "Building Up The Students' English Vocabulary Tharough Fanny Stories," *English Education Department* 1, no. 2 (2015): 205, jurnal.uin-alauddin.ac.id.

[13]Hernawati.

[14]Hernawati.

d. The Importance of Vocabulary

Vocabulary is very important to be learned by the students who want to master a language. Vocabulary is basic communication. To express an idea or ask some information, a person must be able to produce lexical items to convey his/her meaning.

Cameron believes that building a useful vocabulary is central to the learning of a foreign language at perimery level. Vocabulary mastery is important in writing. Without enlarging their vocabulary, students cannot write successfully. Therefore, anyone who learned a language successfully must enlarge her or his vocabulary mastery.[15] Vocabulary use to make a sentence or to express opinion, thingking or ideas in the social communication.

Vocabulary is important to students. It is more important then grammar for the communication purpose. Particularly, in the early stages when students are motivated to learn the basic words, they need to get it in the language. Also, as the lexical system is open, there is always something new to learn when students have done the grammar. So more advanced students are motivated to add thair vocabulary stock, to understand nuances of meaning, and to became more proficient in their own choice of words and expression.

Vocabulary helps students understand and communicate with other in English. Rich vocabulary will helps tudents matery the four

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[15]Nanang Bagus Subakti Hasan, "The Correlation Between Vocabulary Mastery and Writing Skill of Secondary School Students," *JELLT* 1, no. 2 (2017): p.56, jurnal.ustjugja.ac.id.

language skill listening, speaking, reading and writing. This importance is proven by Than Huyen and Thin Thu Nga, ''Vocabulary as a language element that links the four language skills including listening, speaking, reading and writing in learning a foreign language''. [16]

When learning foreign language, basically vocabulary became important. It should have to develop grammar and pronunciation and all the language skills in language. All are going to be difficult if communication without vocabulary.

e. The Principles of Teaching Vocabulary

In learing English, the students must master the vocabulary. because vocabulary is the basic of language. The students can not master the four language skill without vocabulary. So, to improve students' vocabulary the teacher teaches it in the classroom.

There are six principles in the teaching vocabulary are: 1) Keeping teaching simple and clear without any complicated explanation.2) Relating present teaching to past knowladge by showing a pattern or analogies.3) Using both oral or written presentation.4) Giving most attention to words that are already partly know.5) Telling learners if it is a high-frequency word that is worth nothing for future attention.6) Not bringing in other unknown or poorly known related words like near synonyms, opposites, or number of the same lexical set.[17]

From the explanation above can be conclude that there are many priciples in teaching vocabulary such as teach the vocabulary based

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[16]Dewi Nur Aisyah, "The Vocabulary Teaching and Learning: Perception, Strategies, and Influences on Students' Vocabulary Mastery," *Bahasa Lingua Scientia* 9, no. 2 (2017): 294, http://core.ac.uk.

[17] Tira nur Fitria Saniago Dakhi, "The Principles and the Teaching of English Vocabulary," *English Teaching* 5, no. 2 (2009): 22.

on students need, make the simple and cear teaching and tecahing by using strategy.

f. Material of Vocabulary

There are many materials of vocabulary that teach to students. Here, only discuss the vocabulary that related to the people.

The material of vocabulary about people are: age (baby, young, child, teneger, generation, adult, middle-aged, ald and act), family (mother, father, sister, brother, grendmother, grend father, wife, husbend and ect), appearance (tall, short, slim, quite, big, fat, thin, overweight and ect), charachter (sensitive, agressive, thoughtful, humorous, kind, vain, shy, loyal, honest, sensible and ect), part of body (eyes, nose, hair, face, foot, hand, stomach, head and atc).[18]

For more information, there are some exercices that related to the person as follow:

> **Match the expressions on the left with those on the right:**
> 1. She's 3 days old.   a. she's still a child
> 2. She's 18 months.   b. shes's a newborn baby
> 3. She's 8.   c. she's a teenager
> 4. She's 14.   d. she's an adult
> 5. She's 20.   e. She's a toddler
>
> **Relations and relatives are two words for the same people. Use these words below:**
> Aunt   granfather   grandmother   uncle granmother
> Nephew   niece   granddaughters   cousingrandson
> 1. Your parents' parents are your ....and your...
> 2. Your fathers' brother and sister are yours .... and yours.....
> 3. Your auntaunts' and uncles' children are your.....
> 4. Your brothers' son and daughter are your .... and your .....
> 5. Your childre's children are your ..... and your ......

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[18]Cheris Gouch, *English Vocabulary Organiser* (England: Language Teaching Publication, 2001), www.gml.cz.

Mark the following P (positive) or N (negative):
1. She's got so much personality.
2. She is a bit difficult at times
3. She isn't easy to get on with.
4. She's got a great sense of humoros.
5. She's a bit of a pain sometimes.[19]

2. Writing Descriptive Text

a. Definition of Writing Descriptive Text

Writing is categorized as a productive skill, it might be a problem for some students in learning English because there are many aspects which should be considered, such as content, grammar, vocabuleries, organizing idea, mechanic and styles. Writing is the most complex human activities. It includes the development of organizing idea, the capture of mental representations of knowledge, and of experience with subject.

Writing is a skill how to put the ideas into written form. Borwn points out writing as a activity which is complex since it involves many skills, such as deciding what to write, determining the best way to convey it, and determining the way to put the ideas ito a paper as a text which are understandable for the reader to read.[20]Writing is one of basic language skill that is important to be learn besides reading, speaking and listening in language learning. [21] It means,Writing is one of the English skills that should be mastered by students.

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[19]Gouch. P.30.

[20]Hasan, "The Correlation Between Vocabulary Mastery and Writing Skill of Secondary School Students," p.57.

[21]Fitri Rayani Siregar, "Teaching Writing and Evaluating Students' Writing (in a Process Approach)," *English Education* 01, no. 01 (2014): p.3, jurnal.iain-padangsidimpuan.ac.id.

The written productive language skill is called writing. It is the skill of a writer to communicate information to a reader or group of readers.[22] In addition, David Nunan explains that writing can be defined by a series of contrast:

1) It is both a physical and a mental act. Writing is the physical act of commiteng words or ideas to some medium, whether it is hieroglyphics inked onto parchement or an e-mail message typed into a computer. On the other hand, writing is the mental work of investing ideas, thinking about how to express them, and organizing them into statements aand paragraphs that will be clear to a reader.
2) Its purpose is both to express and impress. Writers typically serve two masters: themselves and their own desires to express and idea or feeling, and readers, also called the audience, who need to have ideas expressed in certai way.
3) Its is both a process and product. The writer imagines, organizes, drafts, edits, reads, and rereads. This process of writing is often cyclical, and sometimes disorderly. Ultimately, what the audience sees, whether it is an instructor or a wider audience is a product-an essay, letter, story, or research repor. [23]

So, it could be concluded that writing is a process of creativity of thoughts, ideas, and feeling expressed in writing language with the goal of ceratin. Writing is the Physical act of commiting words or ideas to some medium. Writing is the mental work of inventing ideas, thinking about how to put express and organize the ideas into statements and paragraphs that will be clear to the reader.

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[22]Sanggam Siahaan, *The English Paragraph* (Yogyakarta: Graha Ilmu, 2017), P.2.
[23]David Nunan, *Practical English Language Teaching* (New York: McGrown-Hill, 2003), p.88.

Desceriptive text is a text which is intended to describe a particular person, place or thing.[24] Kane states description is about sensory exprience how something looks, sounds, tastes. Mostly is about visual exprience, but description also deals with other kinds of perception. Grot and Wignel define descriptive text is kind of text which is aimed to describe a particular person, place or thing.[25]

Desceriptive text is a kind of writing that consists of description, charasteristics, definition of something, object or something. Descriptive writing also involves putting across feelings, describing place, things or object. The descriptive text is really diffrent from the other kinds of text. Descriptive text is the text that describe something. Wyrick states, the writer of description creates a word-picture of persons, places, objects, and emotions using a careful selection of detail to make an impression on the reader.[26]

Descriptive text is a kind of text which a purpose to give information. The context of this kind of text is the description of particular thing, animal, person, or others. According to Oshima and Hogue descriptive writing appleas to the senses, so it tells how something looks, feels, smells, tastes, and sounds. In addition, a good

[24]Zulaika, Eka Agustina, and M. Mukhas, "An Analysis Students' Ability in Writing Descriptivee Text," *Jurnal Darussalam* X, no. 1 (2018): P.5, https://ejurnal.iaida.ac.id.

[25]Siti Masitoh and Dasep Suprijadi, "Improving Students' Ability in Writing Descriptive Text Using Genre Based Approach (GBA)," *ELTIN* 3, no. 1 (2015): P.40, http://ejurnal.stkipsiliwangi.ac.id.

[26]Yenni Rozimelaa Lailatul Husna, Zainil, "An Analysis of Students' Writing Skill in Descriptive Text at Grade XI IPA 1 of MAN 2 Padang," *Journal English Language Teaching (ELT)* 1, no. 2 (2013): P.2, http://ejournal.unp.ac.id.

description is like a "word picture", the reader can imagine the object, place, or person in his or her mind.[27]

> Descriptive writing or writing descriptive text is describes a person, place or thing in a way that enables the reader to visualize it. this type of writing is characterized by sensory details, precise language (tulip instead of flower; mansion instead of home), comparisons (under the jeweled sky; speaks like a queen), strong verbs (He smalled the book down) and hyporbole (faster than a speeding bullet; strong as an ox).[28]

From the explanation above, the researcher conclude that descriptive writing or called as description is writing which use to describe about something like animal, person, and things, or other physical items as well as object whose features are concrete and touchable. In this research the material of descriptive text will focus to describe about people.

b. **The Purpose of Writing Descriptive Text**

Desceriptive text is a kind of writing that consists of description, charasteristics, definition of something, object or something. Writing descriptive texts teaches students to '' organize their thinking, search for and communicate details, define people, places, and things, and write with clarity and purpose.''.[29]

Garot and Wagnall argue that that, descriptive text is a kind of text with a purpose to give information.[30] The context of descripive

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[27]Syafira Khairani Anggun, "An Analysis of Desceriptive Text in English Language Text Book Using Transitivity System," *Journal of English Education* 4, no. 1 (2016): p.149.

[28] Ph.D. John Schacter, *The Master Teacher Series Descriptive Text*, n.d.

[29]John Schacter.

[30]Bosede Fakeye, "Instruction in Text-Structure Ad A Determinant of Senior Secondary School Students' Achievement in English Narrative Text in Ido Local Goverment Area,

text is the description of paricular thing, anima, person or others. ''The social function of descriptive text is to describe a particular person, place or thing''.[31]

From the explanation above the researher conclude that the purpose of descriptive text is to describe about something, like place, thing, animal, and person, and to give information for the reader about the text.

c. Generic Structure of Writing Descriptive Text

The generic structure of descriptive text is identification and description. Identification intendeed of the topic which is wanted to descript and description intended of writing that tries to put a picture in the reader's mind. Description tells how something looks or sounds or tastes or smells or feels.

Lowes and Clark also explained that text structure of descriptive text consist of:

1) Identification: is writing the name of something, place, pictured, city, and family with brief description, to identify the object to describe.
2) Description: describe parts, qualities, and characteristics of the parts of the object.[32]

From the explanation above, the researcher conclude that the generic structure of descriptive text is identification and description.

Oyo State," *International Jurnal of Arts and Humanities (IJAH)* 5, no. 2 (2016): 275, http://www.ajol.info.
[31]Masitoh and Suprijadi, "Improving Students' Ability in Writing Descriptive Text Using Genre Based Approach (GBA)."
[32]Sanggam Siahaan and Kisno Shinda, *Generic Text Structure* (Yogyakarta: Graha Ilmu, 2008), p.89.

Identification is identifies phenomenon to be describe, and description is describes parts, qualities and characteristics.

d. Language Features of Writing Descriptive Text

In describing a particular object, the descriptive text has to use some language features as follow:

1) Focus on specific partisipants as the main character
2) Use present tense as dominant tenses
3) Use linking verbs or relational process frequently (is, are, has, have, belongs to) in order to classify and describe appearance or qualities and parts or function of phenomena.
4) Use action verbs or material process and behavioural process in giving additional description regarding action and behaviour done by the participants in text.
5) Use mantal verb or mental process when describing feelings.
6) Use nominal group frequently to describe.
7) Use adjective and adverb to add information to nouns and add information to verbs to provide more detailed description about the topic.
8) Use adverbial phrases to add more information about manner, place, or time and sometimesrealized in embedded clause which functions as circumstance.[33]

Actually there are some text that have a same language features. Every genre have language feature. One of sign that known genre the text is descriptive is tenses. Tenses show the time of act.

e. Example of Descriptive Text

There are many example of descriptive text, here will give the example about describing people.

My Best Friend

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[33]Anggun, "An Analysis of Desceriptive Text in English Language Text Book Using Transitivity System," P.150.

I want to tell you about my best friends. I have three best friends. Their name are Salma, Firman, and Lia.

Salma is tall, but Firman is taller than Salma. Lia is very tall. She is the tallest of the three.

Three of them can play the guitar well. Salma plays better then lia. Firman plays very well. He is the best guitarist at school.

The three are clever students. Salma is celever. She is clever than Fiman. Lia is very clever. She is the cleverest student in class.

They all like collecting money. Their money collection is from Indonesia, as well as from other countery. Salma's collection of money is not very good. Firman's is better. Lia's collection is the best.[34]

For more imformation, there are exercises about the descriptive

text that related to the person, as follow:

True or False?

1. Lia is taller than Salma.
2. Salma is shorter then Firman.
3. Salma plays guitar better than Firman does.
4. Firman plays guitar better than Salma and Lia.
5. Salma is clever than Firman.
6. The three collect money, both fro Indonesia and foreign countries.
7. Salma's collection is better than Firman's.[35]

Introduction :

Choose three friends, relatives, neighburs, or other people you are familiar with. Write their names and some fact about them. For example, their age, height, weight, number of children, hobbies, characters, ect. Write five sentences to compare them.[36]

Name:	Name:	Name:
Facts:	Facts:	Facts:
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.

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[34]Nur Zaida, *Bright an English Course for Junior High School Students for SMP/MTs Grade VIII Kurikulum 2013 Revisi*, ed. Yuniar Widiastuti and Dwi Wahyu Prianto (Jakarta: Penerbit Erlangga, 2017).
[35]Zaida.
[36]Zaida.

5.	5.	5.

B. Review of Related Finding

Actually, there are some related findings that discuss about vocabulary and writing desceriptive text mastery: the first, research do by Tyas Arum Dwiwati, the result of the analysis data shows that the coeficient correlation (r_{xy}) is 0.713. it indicates that there is a high relationship between the students' vocabulary mastery and their writing ability on writing desceriptive text.[37]

The second, reseach do by Yuyun Azizah, the result of the study shown by the coefficient correlation (r_{xy}) is 0.563. it indicates that ther is a fair relationship between the students' vocabulary mastery and their writing desceriptive text ability.[38]

The third, research do by Umairah Rahmati, the result of the analyses shows that there is a significant correlation between vocbulary mastery and students' writing skill of English department students of UIN Ar-Raniry.[39]

Next, research do by Muslim, the result show that there is signifanct correlation between vocabulary mastery and students writing ability in narrative text.[40]

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[37]Tyas Arum Dwiwati, "The Correlation Between Students Vocabulary Mastery and Their Ability on Writing Descriptive Text" (Muhammadiyah University, 2016), http://repository.umpwr.ac.id.

[38]Yuyun Azizah, "The Correlation Between Students' Vocabulary Mastery and Their Writing Ability in Descriptive Text" (IAIN Salitaga, 2017), http://e-repository.perpus.iainsalitaga.ac.id.

[39]Umairah Rahmati, "The Correlation Between Vocabulary Mastery and Students Writing Skill" (IAIN Salitaga, 2018), https://repository.ar.rainry.ac.id.

[40]Muslim, "The Correlation Between Vocabulary Mastery and Students' Writing Ability in Narrative Text" (Sultan Syarif Kasim Riau, 2012), http://repository.uin.suska.ac.id.

The last, research do by Eva Faliyanti, the result show that the correlation between students' vocabulary mastery and their interest in English toward reading comprihension in desceriptive text is any positive and significant correlation.[41]

Based on related findings above, the researcher wanted to do a reseach on correlation between vocabulary and writing descriptive text mastery at the grade VIII students of SMP N IX Padangsidimpuan.

C. Framework of Thinking

Vocabulary is the collection of words in English language and important subject in language learning. To master the four language skill like listening, speking, reading and writing we must learn the vocabulary first. Vocabulary is the words of a language, including single items and phrases or chunks of several words which covey a particular meaning, the way individual words do.

Vocabulary is central to English language teaching because without sufficient vocabulary students can not understand others or express their own ideas, students often instinctively recognize the importance of vocabulary to their language learning.

Descriptive writing or called as description is writing which use to describe about something like animal, person, and things, or other physical items as well as object whose features are concrete and touchable. Descriptive text is descriptive as the method used in writing whose aim to described

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[41]Eva Faliyanti, "The Correlation Between Students ' Vocabulary Mastery and Their Interest in English Toward Reading Comprehension in Descriptive Text By Eva Faliyanti English Department of FKIP Muhammadiyah University of Metro Introduction English Is Regarded as Foreign l," *Premise Journal* 4, no. 2 (2015): 68–76.

physical items or objects of which features are concrete or touchable, and it may be attained through using the sensory language or five senses consisting of sight, hearing, smell, taste, and touch.

Vocabulary is important in writing descriptive text, without vocabulary the students can not writing descriptive text, they do not know what they want to write. Vocabulary will make the help the students to write the descriptive text and to understant about the text.

Based on the explanation above, assume that there is the significant correlation between the students vocabulary and writing of descriptive text.

$$\boxed{X} \longrightarrow \boxed{Y}$$
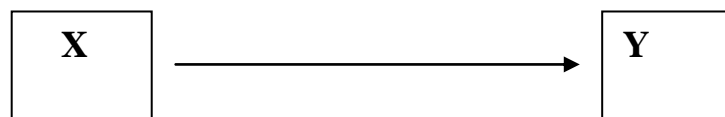
X = Vocabulary Mastery

Y = Writing Descriptive Text

D. Hyphothesis

Hypothesis is the provisional result of the reseach. The hypothesis of this reseach are:

1. There is a significant correlation between vocabulary and writing descriptive text mastery at the grade VIII students of MTs Al-Ansor Padangsidimpuan.

2. There is no significant correlation between vocabulary and writing descriptive text mastery at the grade VIII students of MTs Al-Ansor Padangsidimpuan.

CHAPTER III

RESEARCH METHODOLOGY

A. Place and Time of the Research

The place of the research is MTs Al-ansor Padangsidimpuan. That is located on H.T. Rizal Nurdin street. Kilometer 8, Number 3 Manunggang Julu Village. Southeast Padangsidimpuan sub-direction, Padangsisimpuan Town, North Sumatera, Indonesia. The researcher started the research from October 2019 until September 2020.

B. Research Method

The type of research in this study is correlational by study a quantitative method. Correlational research attempts to determine whether, and to what degree, a relationship exists between two or more variables. A correlation is a quantitative measure of the degree of correspondence between two or more variables.[42]Quantitative method is a method whose research data uses numerikal figures and the analysis uses statistics.

''Descriptive is research that seeks to describe and interpret things, such as the condition or relationship, a growing opinion, the on going process, result of effect, or about the on going trend.''[43]Descriptive research used to describe the correlation between two variable naturally.

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[42]L.R. Guy and Petter Airasian, *Education Research* (USA: Prentice Hall, 2000), p.12.
[43]Mega Linawarti, Azis Fathoni, and Maria M Minarsi, "Studi Descriptive Pelatihan Dan Pengembangan Sumberdaya Manusia Serta Penggunaan Metode Behavioral Event Interview Dalama Merekrut Karyawan Baru Bank Mega Cabang Kudus," *Journal of Management* 2, no. 2 (2016).

C. Population and Sample

1. Population

In quantittive research, population is defined as an area of generalization consisting of objects/subjects that are determined by the researcher for study and then take the conclusions.[44] In this research will take the VIII grade students of SMPN 1X Padangsidimpuan as the population. The population amounted to 119 students.

Table 1
List of Population of the VIII grade students of MTS Al-Ansor Padangsidimpuan in academic year 2019/2020

No	Class	Number of students
1	VIII. A	23
2	VIII. B	23
3	VIII. C	20
4	VIII. D	24
5	VIII. E	29
	Total	119

2. Sample

Sample is the part of population.[45]It means, a sample is the selected participantsthat taken from the population for the research study. In this research the researcher will take the sample using random sampling. It means, all the population of the subject have a chance to be chosen as a sample. Tookthe sample used by lottre,that write the name of each population on a small paper then put the papers into the bottle and shake it then take out as much as needed.

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[44]Sugiyono, *Metode Penelitian Kuantitatif ,Kulitatid Dan R&D* (Bandung: Alfabeta, 2016).P.80.
[45]Sugiyono.

The formula for calculating the sample size of a known population is using solvin's formula:

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

n = the total of sample

N = the total of population

e = the limit of error tolerance[46]

So, the researcher will use the formula above to determine the sample size, with the limit of error tolerance 20% as follows:

N = 119

e = 20 % (0,2)

n = ...?

$$n = \frac{119}{1+119.0,2}$$

$$n = \frac{119}{1+119.0,4}$$

$$n = \frac{119}{1+4} = 23,8 \text{ rounded to 24}$$

from the explanation above it can be take that the total of sample in this research is 24. And order to be brief can be seen on the following table:

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[46] Husein Umar, *Metode Riset Bisnis* (Jakarta: PT Gramedia Pustaka Utama, 2003).

Table 2
Sample of the Research

No	Class	Number of Students
1	VIII. A	5
2	VIII. B	3
3	VIII. C	7
4	VIII. D	6
5	VIII. E	3
	Total	24

From the table above can be conclude that the total of sample was 24 students that 5 from class VIII A, 3 from calss VIII B, 7 from class VIII C, 6 From class VIII D and 3 from class VIII E and the total was 24 students.

D. Instrument of The Research

In this research used test in collecting data. Test is a series of questions or exercises and other tools used to measure the skills, knowledge, intelligence, ability or telent possesed by individuals or groups. The researcher uses two kind of test. They were vocabulary test and writing test of descriptive text. The descriptions of both tests are as follow:

1. Vocabulary Test

In vocabulary test, the researcher gave some questions to the students. The questions tha researcher gave its about 100 questions which form multiple choice with four options: A, B, C, and D.

Table 3

Indicator of Vocabulary Test

No	Indicator	Number of items	Item
1	Age	1,14,100,29,37,30,39,15	8
2	Family	56,58,31,99,57,2,61,60,59,38,3,62,16,40,32,63,17,65,64,66	20
3	Appearance	4,71,19,70,41,6,69,42,18,68,67,78,6,77,76,43	16
4	Charachter	75,33,74,7,73,72,20,21,45,8,89,88,34,81,86,9,90,84,85,44,22,24,98,46,97,10,96,95,23,94,93,92,11,91,47,75	36
5	Part of body	55,83,12,82,48,81,13,52,80,49,26,7927,36,50,35,54,28,53,51	20
	Total	100	100

2. The writing Test of Descriptive Text

The form of writing descriptive text test is essay test. In writing test of descriptive text, the researcher gave a topic to the students, the topic is about person which the title is about my parent, my sister and my friend, and they are free to chose the tittle of the topics above. Then they describe about their title.

Table 4
Indicator of Writing Descriptive Text

Indictor	Sub Indicator	Score	Criteria
Social function	Able to write	8-10	Very good
	Purpose of text	5-7	Good

		1-4	Low
Generic structure	Able to write Identification of text	8-10	Very good
		5-7	Good
		1-4	Low
	Able to write Description of text	8-10	Very good
		5-7	Good
		1-4	Low
Lexical grammatical features	Able to Use Specific participants	6-7	Very good
		4-5	Good
		1-3	Low
	Able toUse present tense	7-9	Very good
		4-6	Good
		1-3	Low
	Able to Use linking verbs	7-9	Very good
		4-6	Good
		1-3	Low
	Able to Use action verbs	7-9	Very good
		4-6	Good
		1-3	Low
	Able to Use mental verb	7-9	Very good
		4-6	Good
		1-3	Low

E. Validity and Reliability of the Instrument

Validity and reliability are the important thing toward the research. On this research there were two instruments that had been identified the validity and reliability, as follow:

1. **Validity**

   Validity is the tool that use to measure the test. Sugiyono explain that validity is an istrument that used to measure what will be measured.[47] The formula to test validity used person product moment.

   The total of test before validity test in vocabulary test was 125 questions, and after validity test there was 103 question that valid and there was 22 questions invalid. The researcher taken 100 question to test the students vocabulary (See appendix 6).

2. **Reliability**

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

   Based on the calculated after validity test there was 0.961979 the tolat of r_{count} and the total of spearman was 0. 980621 and there was 0. 404 the total of r_{table}. It mant the the spearman was higest then r_{tabel} so that the test was reliable (see appendix 7).

F. Technique of Data Analysis

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[47]Sugiyono, *Metode Penelitian Kuantitatif ,Kulitatid Dan R&D*. P.121.

In this research, for analyzing the data used product moment. Product moment correlation techniques are used from small and large samples. The purpose of a small sample is if the number of subjecs is less than 30, whereas for a large sample, the number of subjecks is more than 30.[48]The stages are as follow:

1. Identify the total or corrected the answer the subject researcher from the test.

2. Use mean score to identify variable X and Y

   a) To know the mean score used the formula:

   $$M_x = M^1 + i \left(\frac{\Sigma FX^1}{N} \right)$$

   Description:

   M_x = mean (Average)
   Σfx = The sum of multiplication of each score with a frequency
   N = Number of Students[49]

   b) Know the median score used the formula:

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

   Description:

   ℓ = lower limit of the real containing median score
   fkb = commulative frequency lies below the median score containing
   fi = frequency of score containing median
   i = Class interva[50]l

   c) Know the modus of score used the formula:

   $$M_o = \ell + \left(\frac{fa}{fa + fb} \right) x \, i$$

[48]Ahmad Nizar Rangkuti, *Statistik Untuk Penelitian Pendidikan* (Medan: Perdana Publishing, 2015), P.100.
[49] Sugiyono, *Metode Penelitian Kuantitatif ,Kulitatid Dan R&D*.
[50] Sugiyono.

Description:

M_o = Mode
ℓ = Lower limit of the interval containing the real – mode
fa = Frequency located at the interval that contains the mode
i = Class interval[51]

Table 5
The Table interpretation of Mean Score

No	Range of Real Score	Category
1	80 – 100	Very good
2	70 – 79	Good
3	60 – 69	Enough
4	50 – 59	Less
5	0 – 49	Fail

Source: Riduan, belajar muda penelitian untuk guru,
Karyawan dan penelitian pemula.

3. Make helper table for calculating product moment correlation.

4. Look for r_{count} by entering statistical number from the helper table with the

formula:

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

Description:

r_{xy} : correlational coefficient
n : the total of sample participating in this research
$\sum xy$: the total score of x and y
$\sum x$: total of x
$\sum y$: total of y
$\sum x^2$: total of x^2
$\sum y^2$: total of y^2

5. Find the amount of contribution variable X to Y with the formula:

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

Description:

KD = coefficient of determination

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[51] Sugiyono.

r= the correlation value obtained

6. Then, testing the truth of significant correlation, used the formula t_{count}

with the formula:

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

Description:

t = the canculated t test value
r = correlation coefficient
r^2 = coefficient of determination
n = the total sample[52]

The result should been appropriated with interpretation to the index of product moment of correlation.

Table 6
Category Value Correlation and Strength Correlation

No	Value or High r	Interpretation
1	0.90 – 1.00	Very good
2	0.70 – 0.90	Good
3	0.40 – 0.70	Enoght
4	0.20 – 0.70	Low
5	0.00 – 0.20	Lowest

(Source: Sugiyono, Statistik Untuk Penelitian)

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[52]Rangkuti, *Statistik Untuk Penelitian Pendidikan*.

CHAPTER IV
RESULT OF THE RESEARCH

In this chapter, discussed the result of testing, in order to evaluate the correlation between vocabulary and writing descriptive text mastery of the VII grade students of MTs Al-Ansor Padangsidimpuan in academic years 2019/2020. The research calculated the data used descriptive method. Applying the quantitative analysis, used the formulation "r" Product Moment. The described the data as follows:

A. The Description of the Data

The data described by sequence of variables. Description of research of result started from variable (X) was vocabulary and variable (Y) was writing descriptive text mastery. In this part, showed the result of score of both of the variable.

1. Vocabulary

The form of vocabulary test was multiple choices. The total number of Vocabulary item was 100 items. Every score item was 1 score. The total score of vocabulary test was 100 score.

After calculating the score, it was found that the lowest score in vocabulary test is 50 and the higest is 95 (see appendix 11). To complete this research, it was needed for the researcher to calculate the mean score was 73,12, the median score was 71,5 and the mode score was 75. So, the specification calculation described in the table below:

Table 7
The Resume of Variable Score of Vocabulary

No	Statistic	Variable X
1	High score	95
2	Low sore	50
3	Range	45
4	Number of class	5
5	Interval	9
6	Mean score	73.12
7	Median score	71.5
8	Modus score	75

Based on te above table, it shows that mean score 73.12 it means

that the students in vocabulary was in good predicate. To know

revelation of data was done to grouped the variable score of

vocabulary which total class 5 and interval 9.

Then, the computed on the frequency distribution of the students'

score of group can be applied in to table of frequency distribution as

follows:

Table 8
Frequency Distribution of Vocabulary

Interval	Frequency	Percentages
50 – 58	3	12.5%
59 – 67	4	16.66%
68 – 76	8	33.33%
77 – 85	5	20.83%
86 – 95	4	16.66%
Total	24	100%

Based on the table above, It known that the variable revelation of

vocabulary shown that the respondent at interval 50 – 58 were 3

students (12,5%), interval 59 – 67 were 4 students (16,66), interval 68

− 76 were 8 students (33,33%), interval 77 − 85 were 5 students

(20,83%), interval 86 − 95 were 4 students (16,66%).

In order to get description of the data clearly and completely, the

researcher presents them in histogram on the following figure:
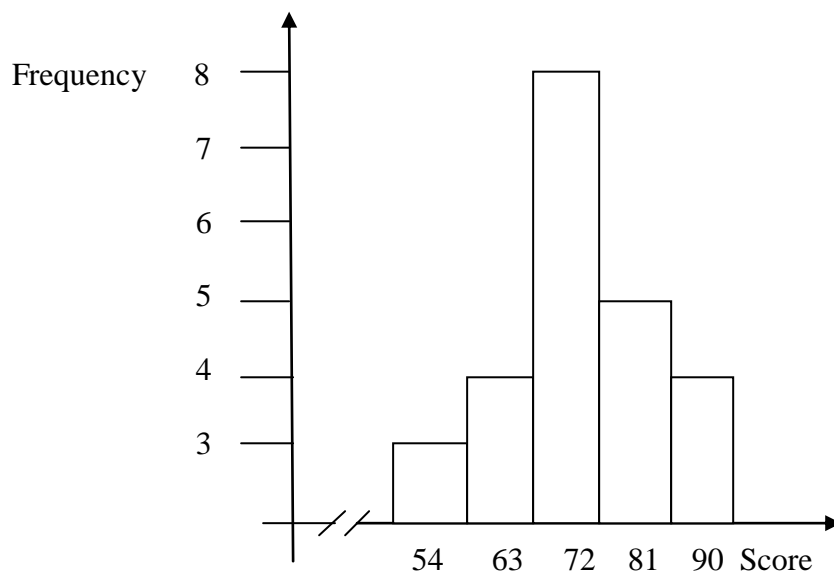
**1: Figure Histogram
Vocabulary**

From the histogram above can see the highest frequency is 8 in

the mid score 72. And the lowest frequency is 3 in the mid score 54.

2. Writing Descriptive Text

The form of writing descriptive text was essay test. The students

chosen the three topics of Descriptive text that given by the writer then

describe by using English language. The total score of writing

descriptive text was 100 score.

After calculating the score, it was found that the lowest score in

writing descriptive text test is 55 and the higest is 90 (see appendix

12). To complete this research, it was needed for the researcher to

calculate the mean score was 71.41, the median score was 70 and the mode score was 70. So, the specification calculation described in the table below:

Table 9
The Resume of Variable Score of
Writing Descriptive Text

No	Statistic	Variable X
1	High score	90
2	Low sore	55
3	Range	35
4	Number of class	5
5	Interval	7
6	Mean score	71,41
7	Median score	70
8	Modus score	70

Based on the above table, it shows that mean score is 71.41 it means in writing descriptive text was in good predicate. To know revelation of data was done to grouped the variabe score of writing descriptive text wich the total class 5 and interval 7.

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

Table 10
Frequency Distribution of Writing Descriptive Text

Interval	Frequency	Percentages
55 – 61	4	16,66%
62 – 68	5	20,83%
69 – 75	7	29,16%
76 – 82	4	16,66%
83 – 90	4	16,66%
Total	24	100%

Based on the table above. It known that the variable revelation of writing descriptive text shown that the respondent at interval $55 - 61$ were 4 students (16,66%), interval $62 - 68$ were 5 students (20,83%), interval $69 - 75$ were 7 students (29,16%), interval $76 - 82$ were 4 students (16,66%), interval $83 - 90$ were 4 students (16,66%).

In order to get description of the data clear;ly and completely, the researcher presents them in histogram on the following figure:
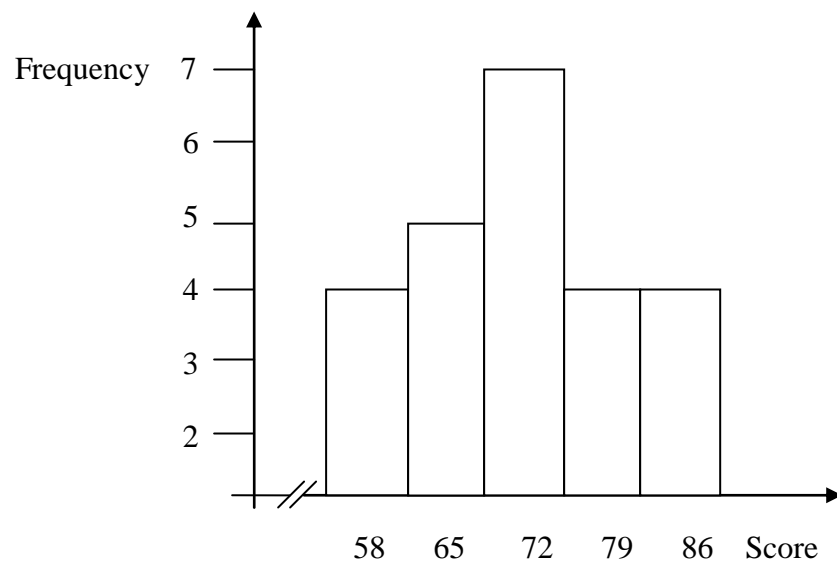
2: Figure Histogram Writing Descriptive Text

From the histogram above can see the highest frequency is 7 in the mid score 72 and the lowest frequency is 4 in the mid score 65, 79 and 86.

B. Hypothesis Testing

Requirement

Tabel 11: Normality data X and Y

Class	Normality test	
	r_{count}	r_{table}
Data X	3.675	9.488
Data Y	4.944	9.488

Based on the table above, the score of data X = 3.675 < 9.488 with n = 24 and data Y = 4.944 < 9.488 with n = 24, on significant 5%. It meant that data X and Y were distributed normal (see in appendix 13).

Hypothesis testing aims to determine the correlation between vocabulary and writing descriptive text mastery to the VIII grade students of MTs Al-ansor Padangsidimpuan by using Product Moment formula. Before testing the hyphothesis, first performed the calculation of the scores obtained by the respondents as below:

N   = 24

ΣX = 1.744

ΣY = 1. 958

ΣX^2 = 130.110

ΣY^2 = 115.490

ΣXY = 107.529

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

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

$$= \frac{24(107529) - (1744).(1958)}{\sqrt{[24.(130110) - (1744)^2].[24.(115490) - (1958)^2]}}$$

$$= \frac{(2580696) - (3414752)}{\sqrt{(3122640 - 3041536)(2771760 - 3833764)}}$$

$$= \frac{834056}{\sqrt{(81104)(-1062004)}}$$

$$= \frac{834.056}{\sqrt{8613277241}}$$

$$= \frac{834056}{928077434}$$

$$= 0.898$$

H_a : There is a significant correlation between vocaulary and writing descriptive text mastery at the grade VII students of MTs Al-ansor Padangsidimpuan. So, based on the above calculation between variable X and Y by r_{xy}, got 0.898 df = N − 2 = 24 − 2 = 22 at significant level 5 % = 0.423 and significant level 1 % = 0.537. So, it found that r_{count} > r_{table} or 0.898 > 0.423. The correlation of this research was positive correlation, it can be seen from calculation r_{xy} product moment was 0.898.

H$_o$: There is no significant correlation between vocabulary and writing descriptive text mastery at the grade VII students of MTs Al-ansor Padangsidimpuan.

So based on the above calculation between variable X and variableY by r$_{xy}$ the researcher got 0.898. The calculating produce moment by getting correlation coefficient r$_{xy}$ = 0.898 was higher then r$_{table}$ = 0.423 on 5% and on significant level 1% = 0.537. The result showed that there was the significant correlation vocabulary and writing descriptivetext mastery at the grade VIII students of MTs Al-ansor Padangsidimpuan in Good category. It meant that H$_a$ is accepted and H$_o$ is rejected.

Table 12
Category Value Correlation and Strength Correlation

No	Value or High r	Interpretation
1	0.90 – 1.00	Very good
2	0.70 – 0.90	Good
3	0.40 – 0.70	Enoght
4	0.20 – 0.70	Low
5	0.00 – 0.20	Lowest

(Source: Sugiyono, Statistik Untuk Penelitian)

To look for the contribution of variable X to variable Y as follow:

KD = The score of determine coefficient

r = The score of the coefficient correlation

KD = r^2 x 100 %

= 0.898^2 x 100 %

= 0.806404 x 100 %

= 80.64%

Based on the calculating above, the constributed variable X (Vocabulary) toward variable Y (writing descriptive text mastery) there was 80.64 % and 19.36% influenced by other variables.

Testing the truth of significant correlation, used the formula t_{count} as follow:

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

$$= 0.898 \sqrt{\frac{24-2}{1-0.898^2}}$$

$$= 0.898 \sqrt{\frac{22}{1-0.806404}}$$

$$= 0.898 \, \frac{4.690}{0.193596}$$

$$= \frac{421162}{0.43}$$

$$= 10.027$$

Based on the calculating above, the researcher found that t_{count} = 10.027 and dk = N − 2 = 24 - 2 = 22 , and at real α = 0.05, the researcher found that t_{table} = 2.074 couse cause $t_{count} > t_{table}$ namely t_{count} = 10.027 and t_{table} = 2.074. It means there was the significant correlation between two variables that is was categorized to be "valid" or could be said that the validity of the contribution of variable X to variabel Y was accepted.

The high of correlation between vocabulary and writing descriptive text mastery (r_{xy}) was 0.898 in a category good correlation. The high contribution between vocabulary and writing descriptive text mastery

was = KD = r^2 x 100 % = 0.898^2 x 100 %. It means vocabulary give contribution to writing descriptive text mastery was 80.64% and 19.36 % influenced by other variables. It is proven that there is a signifanct correlation between vocabulary and writing descriptive text mastery. Evidently t_{count} higher from t_{table} or 10.027> 2.074. So, H_a accepted, it means there is the significant correlation between vocabulary and writing descriptive text mastery.

C. Discussion of Research

After did the research, the researcher discussed the result and compared it with in research related findings:

First, the research done by Tyas Arum Dwiwati. The result was $r_{count} > r_{table}$ (0.713 > 0,361) which means the hypothesis was accepted[53]. The second the research done by Yuyun Azizah. The result was $r_{count} > r_{table}$ (0.563 > 0.404) which means the hypothesis was accepted[54].The third, research done by Umairah Rahmati. The result was $r_{count} > r_{table}$ (0.607 > 0.463) which means the hypothesis mas accepted[55]. Next, research done by Muslim which title. The result was $r_{count} > r_{table}$ (0.759 > 0.05). it means the hypothesis was accepted[56]. The last, research do by Eva Faliyanti which title. The result was $r_{count} > r_{table}$ (4,3 > 2, 04)[57].

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[53] Dwiwati, "The Correlation Between Students Vocabulary Mastery and Their Ability on Writing Descriptive Text."

[54] Azizah, "The Correlation Between Students' Vocabulary Mastery and Their Writing Ability in Descriptive Text."

[55] Rahmati, "The Correlation Between Vocabulary Mastery and Students Writing Skill."

[56] Muslim, "The Correlation Between Vocabulary Mastery and Students' Writing Ability in Narrative Text."

[57] Faliyanti, "The Correlation Between Students ' Vocabulary Mastery and Their Interest in English Toward Reading Comprehension in Descriptive Text By Eva Faliyanti English

In this research, the researcher found vocabulary of the students was low. There are some assumption of why it could be the first they are lazy to memorize the vocabulary, they are lazy to speak English and they are lack of motivation in learning English.

Based on the explanation above, it was proved that this research about vocabulary and writing descriptive text mastery was rether different with the other research, vocabulary had significant correlation with writing descriptive text mastery. This fact can be seen from $r_{count} > r_{table}$ (0.898 > 0.423). So, it is clearly vocabulary have the significant correlation to students writing descriptive text mastery. Vocabulary is needed and really important in writing descriptive text.

D. Limitation of the Research

The researcher gave students the test and explained them how to answer the test of vocabulary (multiple choice test), and explened them how to answer the test of writing descriptive text (essay test). The

researcher was in capable of measuring honest aspect of the students aswering the test given, until possibility the students cheat and guess. The researcher did not know wether students' concentreated or not in aswering the test, and time was limited.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

After analiyzing the data and finding the result of the research, the conclussions expressed as below:

1. After calculating the students score in vocabulary, it founded the total mean score was 73.12. Thus, it can be known that vocabulary mastery of the grade VIII students of MTs Al-ansor Padangsidimpuan was good.

2. After calculating the students score in writing descriptive text, it founded the total mean score was 71.41. thus it can be known that writing descriptive text of the grade VIII students of MTs Al-ansor Padangsidimpuan was good.

3. From the calculating and analyzing the data, it was found the value r_{xy} = 0.898 if the index correlation compare with the value in the "r" table, so it can be seen that significant value 5% with (dk) $24 - 2 = 22$ got the score 0.423. so it can be known that $r_{count} > r_{table}$ or 0.898 > 0.423. Furthermore, the value of $t_{count} = 10.27$ and $t_{table} = 2.074$ or $t_{count} > t_{table}$. It meant there is a significant correlation between vocabulary and writing descriptive text mastery at the VIII grade students of MTs Al-ansor Padangsidimpuan and categorized into good correlation.

B. Suggestion

Here, the researcher give information as follows:

1. Headmaster of MTs Al-ansor Padangsidimpuan suggested to support all English teacher to teach well and provide facilities involves with learning English.

2. English teacher should give a positive stimulus to increase students vocabulary and writing descriptive text in learning English.

3. The researcher hopes that the other researchers who want to conduct a research related to this research to find the other influence of English achievement. In order to motivate readers more critics and consider whatever they read.

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APPENDIX 1

VOCABULARY TEST

Name :

Instruction!

Choose the best answer for each question by crossing (X) A, B, C or D in the correct answer!

1. She is 8 years old. She is....
   a. Adult
   c. Teenager
   b. Toddler
   d. Baby

2. Your parents' parents are your....and your....
   a. Grandfather and mother
   c. Grandmother and Grandfather
   b. Grantmother and father
   d. Grandson and Granddaughter

3. The meaning of niece is.....
   a. Keponakan laki-laki
   c. Sepupu laki-laki
   b. Keponakan perempuan
   d. Sepupu perempuan

4. A person who is extremely good looking....
   a. Beautiful
   c. Clever
   b. Bed
   d. Slim

5. Someone who has no hair.....
   a. Blonde
   c. Bald
   b. Chubby
   d. Curvy

6. Tousled hair its means....
   a. Rambut kusut
   c.Rrambut pirang
   b. Rambut lurus
   d. Rambut botak

7. Someone who is nice to other people...
   a. Funny
   c. Friendly
   b. Arrogant
   d. Naughty

8. Someone who is liked by many people....
   a. Rude
   c. Popular
   b. Loud
   d. Evil

9. Introverted its means.....
   a. Tertutup
   c. Terbuka
   b. Keras
   d. Lemah lembut

10. Stubborn its means.....
    a. Rendah hati
    c. Ramah tama
    b. Keras kepala
    d. nakal

11. Reliable its means....
    a. Dapat dipercaya
    c. Penipu
    b. Baik hati
    d. Pembohong

12. I can see with my.....
    a. Eyes
    c. hair
    b. Face
    d. nose

13. I have five fingers both my hand. Finger its means.....
    a. Jari
    c. pergelangan tangan
    b. Telapak tangan
    d. kuku

14. She is 14 years old. She is....
    a. Teenager   c. old
    b. Toddler   d. adult
15. Middle aged its means....
    a. Setengah tahun   c. setengah tua
    b. Setengah muda   d. beranjak dewasa
16. I have a father and mother. They are my....
    a. Family   c. children
    b. Parent   d. grandparent
17. My sister is my parent's....
    a. Son   c. cousin
    b. Sister   d. daughter
18. Curly hair its means....
    a. Rambut lurus   c. rambut pirang
    b. Rambut botak   d. rambut keriting
19. Some one who si weight less than the average person....
    a. Weight   c. tall
    b. Thin   d. fat
20. Someone who has a good manner...
    a. Popular   c. funny
    b. Polite   d. evil
21. An inactive person who avoild work.
    a. Smart   c. lazy
    b. Diligent   d. neat
22. Stupid its means....
    a. Baik   c. bodoh
    b. Jahat   d. pintar
23. Extravagant its means.....
    a. Menyindiri   c. boros
    b. Suka bergaul   d. hemat
24. Intelligent its means.....
    a. Terampil   c. pintar
    b. Berbakat   d. cerdas
25. Petient its means....
    a. Dendam   c. khawatir
    b. Sabar   d. pemaaf
26. The meaning of chin is.....
    a. Dahi   c. bahu
    b. Ubun-ubun   d. dagu
27. Elbow its means....
    a. Pergelangan   c. siku
    b. Lengan   d. lutut
28. Nail it means.....
    a. Lutut   c. kuku
    b. Jari kaki   d. jari tangan
29. Adult its means.....

a. Anak kecil   c. lanjut usia
b. Anak belasan tahun   d. orang dewasa

30. ''Anak kecil yang baru belajar berjalan'' in English we call...
a. Toddler   c. child
b. Baby   d. teenager

31. Budi is meried to nita. Nita is.....
a. Budis' wife   c. budis' mother
b. Budis' son   d. budis' husband

32. My ounts' son is my....
a. Nephew   c. niece
b. Cousin   d. brother

33. Someone who talks a lot....
a. Chatty   c. funny
b. Smart   d. lazy

34. Stingy its means....
a. Sopan   c. nakal
b. Bohong   d. pelit

35. Calf its means.....
a. Lengan   c. paha
b. Betis   d. siku

36. Cheast its means.....
a. Dada   c. hati
b. Jantung   d. paru

37. Teenager its means.....
a. Anak kecil   c. lanjut usia
b. Anak belasan tahun   d. dewasa

38. Nephew its means.....
a. Sepupu laki-laki   c. keponakan laki-laki
b. Sepupu perempuan   d. keponakan perempuan

39. ''anak muda'' in English we call....
a. Old   c. child
b. Young   d. baby

40. My fathers's wife is my....
a. Cousin   c. brother
b. Mother   d. aunt

41. Someone who is overweight....
a. Large   c. muscular
b. Handsome   d. slim

42. Eyebrow its means.....
a. Alis mata   c. bola mata
b. Bulu mata   d. bentuk mata

43. Atteractive its means....
a. Cantik   c. ganteng
b. Jelek   d. buruk

44. Gifted its means.....
a. Berbakat   c. cerdas

b. Pandai   d. terampil

45. Quiet and a little bit nervous arround other people....
    a. Shy   c. brave
    b. Silly   d. afraid

46. Grazy its means.....
    a. Konyol   c. bodoh
    b. Gila   d. suram

47. Generous its means....
    a. Murah hati   c. kejam
    b. Pembohong   d. pantang menyerah

48. I can hear with my....
    a. Eyes   c. stomach
    b. Ear   d. cheeck

49. Forehead its means....
    a. Dahi   c. bahu
    b. Ubun-ubun   d. dagu

50. Thigh its means....
    a. Lengan   c. paha
    b. Betis   d. siku

51. Sole its means.....
    a. Telapak kaki   c. jari kaki
    b. Telapak tangan   d. jari tangan

52. Lutut in English is.....
    a. Knee   c. skin
    b. Palm   d. neck

53. Toes its means.....
    a. Lutut   c. kuku
    b. Jari kaki   d. jari tangan

54. Knee its means....
    a. Lutut   c. pergelangan
    b. Siku   d. jari

55. I can walk with my....
    a. Hand   c. finger
    b. Head   d. foot

56. Your mothers' husbend is your....
    a. Parent   c. sister
    b. Father   d. grandfather

57. Your ounts' husbend is your.....
    a. Wife   c. uncle
    b. Brother   d. son

58. Your fathers' father is your.....
    a. Grandmother   c. granddaugter
    b. Grandfather   d. grandson

59. Your childrens' children are your....and your.....
    a. Father and mother   c. niece and nephew
    b. Granddaughter and grandson   d. cousin and son

60. Your aunt' and uncles' children are your.....and your.....
    a. Son   c. cousin
    b. Nephew   d. niece
61. Your fathers' brother and sister are your.....and your......
    a. Uncle and aunt   c. son and doughter
    b. Niece and cousin   d. sister and brother
62. Father, mother, brother and sister are your.....
    a. Neighbor   c. family
    b. Children   d. parent
63. My mother's brother is my.....
    a. Brother   c. aunt
    b. Father   d. uncle
64. My father has a daugter. She is my.....
    a. Cousin   c. sister
    b. Mother   d. brother
65. The leader of my family is.....
    a. Father   c. brother
    b. Mother   d. sister
66. My father and mother are my.....
    a. Family   c. parents
    b. Kids   d. neighbor
67. Flat nose its means.....
    a. Hidung pesek   c. hidung besar
    b. Hidung mancung   d. hidung kecil
68. Slim its means.....
    a. Kurus   c. langsing
    b. Gemuk   d. tinggi
69. Pointed nose its means....
    a. Hidung pesek   c. hidung kecil
    b. Hidung mancung   d. hidung besar
70. A person who has yellow heir....
    a. Chubby   c. fit
    b. Blonde   d. flabby
71. Used to describe someone who is not tall....
    a. Fet   b. short
    b. Thin   c. long
72. Someone who is truthful....
    a. Layer   c. friendly
    b. Honest   d. shy
73. Someone who is amusing....
    a. Funny   c. naughty
    b. Arrogant   d. stupid
74. Good at learning thing....
    a. Brave   c. lazy
    b. Stupid   d. clever
75. Someone who is not afraid of danger....

a. Chatty   c. brave
b. Smart   d. shy

76. Nearsighted its means.....
a. Rabun dekat   c. rabun jauh
b. Rabun   d. sakit mata

77. Farsighted its means.....
a. Rabun dekat   c. rabun jauh
b. Rabun   d. sakit mata

78. Gray heir its means.....
a. Rambut pirang   c. rambut hitam
b. Rambut kusut   d. rambut uban

79. Pinggul in Englis is......
a. Ankle   c. arm
b. Hip   d. chest

80. Wajah in Englis is.....
a. Claw   c. face
b. Hair   d. lip

81. Tangue its means....
a. Hidung   c. pelipis
b. Langit-langit d. lidah

82. Stomach its means.....
a. Usus   c. perut
b. Punggung   d. leher

83. I can speak with my....
a. Nose   c. tongue
b. Mouth   d. tooth

84. Relaxed its means.....
a. Pendiam   c. cemas
b. Tenang   d. santai

85. Sensible its means....
a. Sensitive   c. pesimis
b. Optimis   d. keritis

86. Extroverted its means.....
a. Tertutup   c. terbuka
b. Keras   d. lemah lembut

87. Honest its means.....
a. Jujur   c. malu
b. Bohong   d. nakal

88. Having a happy....
a. Supportive c. cheerful
b. Ambitious d. confident

89. Impolite its means.....
a. Rude   c. naughty
b. Arrogant   d. arrognat

90. Calm its means.....
a. Pendiam   c. cemas

    b. Tenang   d. santai

91. Funny its means....
    a. Lentik   c. seram
    b. Lucu   d. kejam

92. Strong its means....
    a. Kasar   c. lemah
    b. Lembut   d. kuat

93. Weak its means......
    a. Lemah   c. lembut
    b. Kuat   d. kasar

94. Interesting its means....
    a. Luar biasa   c. menakjubkan
    b. Menyenangkan   d. menarik

95. Thrifty its means.....
    a. Boros   c. menyindiri
    b. Hemat   d. suka bergaul

96. Naughty its means.....
    a. Pelit   c. nakal
    b. Suka memberi   d. cengeng

97. Nice its means.....
    a. Baik   c. jahat
    b. Buruk   d. nakal

98. Silly its means....
    a. Konyol   c. bodoh
    b. Gila   d. suram

99. Your uncle wife its your.....
    a. Sister   c. nephew
    b. Niece   d. aunt

100.   He is 28 years old. He is.....
    a. Early forties c. late twenties
    b. Fairly elderly d. middle aged

APPENDIX 2

KEY ANSWERS:

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

51. A	61. A	71. C	81. D	91. B
52. B	62. C	72. B	82. C	92. D
53. B	63. D	73. A	83. B	93. A
54. A	64. C	74. D	84. D	94. D
55. D	65. A	75. C	85. D	95. B
56. B	66. C	76. C	86. C	96. C
57. C	67. A	77. D	87. A	97. A
58. B	68. C	78. D	88. C	98. A
59. B	69. B	79. B	89. A	99. D
60. C	70. B	80. C	90. B	100. C

APPENDIX 3

TEST OF WRITING DESCRIPTIVE TEXT

Name :

Instruction!

Choose one of the person below, then describe by using English language with the leng of time 25 minutes!

1. My parent
2. My sister
3. My friend

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APPENDIX 4

VALIDITY TEST

NO	RESPONDEN	ITEM															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	PSH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
2	NP	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1
3	SSSES	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1
0	MRWL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	RFS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	NPN	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1
7	AD	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1
8	RHR	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
9	NDA	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1
10	FMS	1	1	0	0	1	0	1	1	1	1	0	0	1	0	0	0
11	RAS	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
12	IY	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
13	SAH	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
14	NR	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1
15	WSN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	RDS	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
17	SS	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
18	NP	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

19	AKN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	PAH	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1
21	ZPA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	SNFS	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1
23	EK	1	0	1	1	1	1	1	1	1	1	0	1	0	1	1	1
24	NKI	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1
	N= 24	23	22	23	22	22	23	17	17	20	23	18	22	21	22	22	22
	P	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9
	Q	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1

ITEMS

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37

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23	22	22	23	22	20	20	23	20	21	20	23	23	23	21	20	21	19	19	18	22

0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.8	0.9	0.8	0.8	0.8	0.9
0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1

ITEMS

38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
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0.9	0.7	0.8	0.9	0.8	0.9	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.7	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.9	0.9
0.1	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.3	0..1	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.1

58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
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17	23	23	22	23	22	22	21	22	21	20	20	22	21	21	19	20	18	19	19	18
0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2

79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1
0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	1	1
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0
1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	0	0	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	0	1	0	1	0	0	0	0	0	1	0	0	0	1	1
1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	1
1	1	0	0	0	1	1	1	1	1	1	0	0	1	0	0	1	0	1	1	1	1
0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
17	20	20	20	20	22	22	20	20	20	22	16	16	20	11	13	13	12	14	13	17	20
0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.7	0.7	0.8	0.5	0.5	0.5	0.5	0.6	0.5	0.7	0.8
0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.3	0.3	0.2	0.5	0.5	0.5	0.5	0.4	0.5	0.3	0.2

100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116
1	1	1	0	1	0	0	0	0	0	0	0	1	1	1	1	1
1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1
1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1
1	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1
1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
1	1	0	1	1	1	1	0	1	0	0	0	0	0	1	0	1
1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
0	0	0	1	1	0	1	0	1	0	0	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1
1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
1	1	0	1	1	1	0	1	1	1	1	0	0	0	0	1	0
1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1

1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1
20	20	20	22	23	21	22	21	17	14	17	21	19	19	15	22	21
0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.8	0.7	0.6	0.7	0.8	0.7	0.7	0.6	0.9	0.8
0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.4	0.1	0.2

117	118	119	120	121	122	123	124	125	X_t	X_t^2
1	1	1	0	0	0	0	1	1	88	7.744
1	1	1	1	1	1	1	0	0	104	10.861
1	0	1	0	1	0	0	1	0	109	11.881
1	1	1	1	1	1	1	1	1	117	13.689

1	1	1	1	1	1	1	0	1	98	9.604
1	1	1	1	1	1	1	1	1	110	12.1
0	1	0	0	0	0	0	0	1	69	4.761
1	1	1	1	1	1	0	0	1	118	13.924
1	1	1	1	1	1	1	1	1	120	14.4
1	1	0	0	0	0	0	0	0	45	2.025
1	0	1	0	0	0	0	0	1	103	10.609
1	1	1	1	1	1	1	1	0	113	12.679
1	1	1	1	1	1	1	1	1	113	12.769
1	0	0	1	1	0	0	1	1	114	12.996
1	1	1	1	1	1	1	1	1	121	14.641
1	1	1	1	0	0	0	0	1	96	9.216
1	1	1	1	1	1	1	1	1	114	12.54
1	1	1	1	1	1	1	1	1	117	13.589
1	1	1	1	1	1	1	1	1	118	13.924
1	0	1	0	0	0	0	0	1	95	9.025
1	1	1	1	1	1	1	1	1	111	12.321
1	1	1	1	1	1	1	0	1	105	11.035
0	1	0	1	1	1	1	1	1	63	3.969
1	1	1	1	1	1	1	1	1	117	13.689
22	20	20	18	18	16	15	15	20		
0.9	0.82	0.8	0.8	0.8	0.7	0.6	0.6	0.8	2.476	264.125
0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.2		

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APPENDIX 5

Calculation of $r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$

A. Calculation of Pre-test
   1. Mean score from score total (M_t)

$M_t = \frac{\Sigma Xt}{N}$

$M_t = \frac{2476}{24} = 10{,}32$

   2. Standar Deviation (SD_t)

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

$SD_t = \sqrt{\frac{264.125}{24} - \left(\frac{2476}{24}\right)^2}$

$SD_t = \sqrt{11.052 - 103.167^2}$

$SD_t = \sqrt{11.052 - 10.647{,}429}$

$SD_t = \sqrt{404{,}571} = 20.11$

   3. Mean score (M_p)

Item 1

$M_{p1} = \frac{total\ score\ of\ students'\ score\ that\ true\ item\ answer}{n1}$

$M_{p1=} \frac{88+104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+118+95+111+105+63+117}{23}$

$M_{p1 =} \frac{2.357}{23} = 10{,}25$

Item 2

$M_{p1} = \frac{88+104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+118+95+111+117}{22}$

$M_{p1} = \frac{2.308}{22} = 10{,}49$

Item 3

$M_{p1} =$

$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$

$M_{p1 =} \frac{2.431}{23} = 10{,}57$

Item 4

$M_{p1} = \frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+111+105+63+117}{22}$

$M_{p1} = \frac{2.336}{22} = 10{,}61$

Item 5

$M_{p1} = \frac{88+104+109+117+98+110+69+118+120+45+113+114+121+96+112+117+118+95+111+105+63+117}{22}$

$M_{pl} = \frac{2.260}{22} = 10,27$

Item 6

$M_{pl} =$

$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.431}{23} = 10,57$

Item 7

$M_{pl} = \frac{88+104+109+117+98+69+118+45+103+113+113+121+96+117+118+111+63}{17}$

$M_{pl} = \frac{1.703}{17} = 10,02$

Item 8

$M_{pl} = \frac{88+104+117+98+69+118+45+103+113+113+121+96+117+118+111+63+112}{17}$

$M_{pl} = \frac{1.706}{17} = 10,03$

Item 9

$M_{pl} =$

$$\frac{88+104+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+63}{20}$$

$M_{pl} = \frac{2.250}{20} = 11,25$

Item 10

$M_{pl} =$

$$\frac{88+104+109+117+98+110+69+118+120+45+103+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.363}{23} = 10,27$

Item 11

$M_{pl} = \frac{88+117+98+110+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{18}$

$M_{pl} = \frac{1.968}{18} = 10,93$

Item 12

$M_{pl} =$

$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+112+117+118+95+111+105+63+117}{22}$$

$M_{pl} = \frac{2.335}{22} = 10,61$

Item 13

$M_{pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+112+117+118+95+111+105+117}{21}$

$M_{pl} = \frac{2.248}{21} = 10,70$

Item 14

$M_{pl} = \frac{88+104+109+117+98+110+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{22}$

$M_{pl} = \frac{2.362}{22} = 10,73$

Item 15

$M_{pl} = \frac{88+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{22}$

$M_{pl} = \frac{6.327}{22} = 10,57$

Item 16

$M_{pl} = \frac{104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{22}$

$M_{pl} = \frac{2.343}{22} = 10,65$

Item 17

$M_{pl} =$
$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.431}{23} = 10,56$

Item 18

$M_{pl} = \frac{88+104+109+117+98+110+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{22}$

$M_{pl} = \frac{2.362}{22} = 10,74$

Item 19

$M_{pl} = \frac{88+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{22}$

$M_{pl} = \frac{2.327}{22} = 10,57$

Item 20

$M_{pl} =$
$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.431}{23} = 10,56$

Item 21

$M_{pl} = \frac{104+109+117+98+110+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{21}$

$M_{pl} = \frac{2.256}{21} = 10,74$

Item 22

$M_{pl} = \frac{104+109+117+98+110+118+120+103+113+113+114+121+112+117+118+95+111+63+117}{20}$

$M_{pl} = \frac{2.073}{20} = 10,36$

Item 23

$M_{pl} = \frac{88+104+109+117+110+69+118+120+113+113+114+121+112+117+118+95+111+105+63+117}{20}$

$M_{pl} = \frac{2.134}{20} = 10,67$

Item 24

$M_{pl} = \frac{109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+95+111+105+63+117}{21}$

$M_{pl} = \frac{2.166}{21} = 10,31$

Item 25

$M_{pl} = \frac{88+104+109+117+110+118+120+103+113+113+114+121+96+112+117+95+111+105+63+117}{20}$

$M_{pl} = \frac{2.146}{20} = 10,73$

Item 26

$M_{pl} = \frac{88+104+109+117+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{21}$

$M_{pl} = \frac{2.270}{21} = 10,81$

Item 27

$M_{pl} = \frac{104+109+98+110+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{20}$

$M_{pl} = \frac{2.139}{20} = 10,69$

Item 28

$M_{pl} =$
$$\frac{88+104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+118+95+105+63+117}{23}$$

$M_{pl} = \frac{2.365}{23} = 10,28$

Item 29

$M_{pl} = \frac{88+104+109+117+98+110+69+118+120+45+103+113+113+114+121+112+117+118+95+111+105+63+117}{23}$

$M_{pl} = \frac{2.380}{23} = 10,34$

Item 30

$M_{pl} = \frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$

$M_{pl} = \frac{2.431}{23} = 10,56$

Item 31

$M_{pl} = \frac{88+109+117+98+110+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{21}$

$M_{pl} = \frac{2.258}{21} = 10,75$

Item 32

$M_{pl} = \frac{88+109+117+98+110+118+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{20}$

$M_{pl} = \frac{2.195}{20} = 10,97$

Item 33

$M_{pl} = \frac{88+104+109+110+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{20}$

$M_{pl} = \frac{2.147}{20} = 10,73$

Item 34

$M_{pl} = \frac{88+104+109+110+118+120+103+113+113+114+121+96+112+117+118+95+111+63+117}{19}$

$M_{pl} = \frac{2.042}{19} = 10,74$

Item 35

$M_{pl} = \frac{88+104+109+117+110+118+120+103+113+113+114+121+96+112+117+118+111+63+117}{19}$

$M_{pl} = \frac{2.064}{19} = 10,86$

Item 36

$M_{pl} = \frac{88+109+117+110+69+118+120+103+113+113+114+121+96+112+117+95+111+117}{18}$

$M_{pl} = \frac{1.943}{18} = 10,74$

Item 37

$M_{pl} = \frac{88+104+109+98+110+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{21}$

$M_{pl} = \frac{2.245}{21} = 10,69$

Item 38

$M_{pl} = \frac{88+104+109+117+110+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{21}$

$M_{pl} = \frac{2.264}{21} = 10,78$

Item 39

$M_{pl} = \frac{88+109+117+110+69+118+120+103+113+113+96+117+118+95+111+63}{16}$

$M_{pl} = \frac{1.660}{16} = 10,37$

Item 40

$M_{pl} = \frac{88+104+109+110+69+118+120+103+113+113+114+121+96+112+117+118+111+105+117}{20}$

$M_{pl} = \frac{2.058}{19} = 10,83$

Item 41

$M_{pl} =$
$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.452}{23} = 10,66$

Item 42

$M_{pl} = \frac{88+109+117+110+69+118+120+103+113+113+114+121+96+112+118+95+111+105+117}{19}$

$M_{pl} = \frac{2.039}{19} = 10,73$

Item 43

$M_{pl} = \frac{88+104+109+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{21}$

$M_{pl} = \frac{2.251}{21} = 10,71$

Item 44

$M_{pl} = \frac{88+109+117+98+110+69+118+120+45+103+113+114+112+118+95+111+105+63+117}{19}$

$M_{pl} = \frac{1.925}{19} = 10,13$

Item 45

$M_{pl} = \frac{88+109+117+98+110+118+120+103+113+114+121+96+117+118+95+111+105+117}{18}$

$M_{pl} = \frac{1.970}{18} = 10,94$

Item 46

$M_{pl} = \frac{88+104+109+117+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{22}$

$M_{pl} = \frac{2.333}{22} = 10,60$

Item 47

$M_{pl} =$
$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.431}{23} = 10,56$

Item 48

$M_{pl} = \frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+117+95+111+105+117}{20}$

$M_{pl} = \frac{2.138}{20} = 10,69$

Item 49

$M_{pl} =$
$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.431}{23} = 10,56$

Item 50

$M_{pl} =$
$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$M_{pl} = \frac{2.431}{23} = 10,56$

Item 51

$M_{pl} = \frac{109+117+110+118+120+103+113+114+121+112+117+118+95+111+105+63+117}{17}$

$M_{pl} = \frac{1.863}{17} = 10,95$

Item 52

$$M_{pl} = \frac{104+109+117+98+110+118+120+103+113+114+121+96+112+117+118+95+111+105+63+117}{20}$$

$$M_{pl} = \frac{2.161}{20} = 10,81$$

Item 53

$$M_{pl} = \frac{104+109+117+98+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{21}$$

$$M_{pl} = \frac{2.233}{21} = 10,63$$

Item 54

$$M_{pl} = \frac{104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$$

$$M_{pl} = \frac{2.325}{22} = 10,56$$

Item 55

$$M_{pl} = \frac{88+104+109+117+98+110+118+45+103+113+113+114+121+96+112+117+95+111+105+117}{20}$$

$$M_{pl} = \frac{2.106}{20} = 10,53$$

Item 56

$$M_{pl} = \frac{109+117+98+110+118+120+45+113+113+114+121+96+112+117+118+95+111+105+117}{19}$$

$$M_{pl} = \frac{2.049}{19} = 10,78$$

Item 57

$$M_{pl} = \frac{88+109+117+98+110+118+120+45+103+113+113+114+121+112+117+118+95+111+105+117}{20}$$

$$M_{pl} = \frac{2.144}{20} = 10,72$$

Item 58

$$M_{pl} = \frac{104+117+98+110+118+120+103+113+114+121+112+117+95+111+105}{15}$$

$$M_{pl} = \frac{1.658}{15} = 11,05$$

Item 59

$$M_{pl} =$$
$$\frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$$M_{pl} = \frac{2.431}{23} = 10,57$$

Item 60

$$M_{pl} =$$
$$\frac{88+104+109+45+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{23}$$

$$M_{pl} = \frac{2.359}{23} = 10,26$$

Item 61

$$M_{pl} = \frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$$

$$M_{pl} = \frac{2.368}{22} = 10,76$$

Item 62

$$M_{pl} =$$
$$\frac{88+104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+118+95+111+105+63+117}{23}$$

$$M_{pl} = \frac{2.359}{23} = 10,26$$

Item 63

$$M_{pl} = \frac{88+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{21}$$

$$M_{pl} = \frac{2.264}{21} = 10,78$$

Item 64

$$M_{pl} = \frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$$

$$M_{pl} = \frac{2.368}{22} = 10,76$$

Item 65

$$M_{pl} = \frac{88+104+109+117+110+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{21}$$

$$M_{pl} = \frac{2.246}{21} = 10,69$$

Item 66

$$M_{pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$$

$$M_{pl} = \frac{2.344}{22} = 10,65$$

Item 67

$$M_{pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+96+112+117+118+111+105+117}{21}$$

$$M_{pl} = \frac{2.249}{21} = 10,71$$

Item 68

$$M_{pl} = \frac{88+104+109+117+110+118+120+45+103+113+113+114+121+96+112+117+118+111+105+117}{20}$$

$$M_{pl} = \frac{2.151}{20} = 10,75$$

Item 69

$$M_{pl} = \frac{88+104+109+117+110+118+120+45+113+113+114+121+96+112+117+118+95+111+105+117}{20}$$

$$M_{pl} = \frac{2.143}{20} = 10,72$$

Item 70

$$M_{pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$$

$$M_{pl} = \frac{2.344}{22} = 10,65$$

Item 71

$$M_{Pl} = \frac{104+109+117+98+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+63+117}{21}$$

$$M_{pl} = \frac{2.233}{21} = 10,63$$

Item 72

$$M_{Pl} = \frac{104+109+117+98+110+69+118+120+103+113+114+121+96+112+117+118+95+111+105+63+117}{21}$$

$$M_{pl} = \frac{2.230}{21} = 10,62$$

Item 73

$$M_{Pl} = \frac{104+109+117+98+69+118+120+103+113+114+121+96+112+117+118+95+111+105+117}{19}$$

$$M_{pl} = \frac{2.057}{19} = 10,83$$

Item 74

$$M_{Pl} = \frac{88+104+109+117+98+69+118+120+113+113+114+121+96+112+117+118+95+111+105+117}{20}$$

$$M_{pl} = \frac{2.155}{20} = 10,78$$

Item 75

$$M_{Pl} = \frac{104+109+117+69+118+120+103+113+113+114+121+112+117+118+95+105+117}{17}$$

$$M_{pl} = \frac{1.865}{17} = 10,97$$

Item 76

$$M_{Pl} = \frac{104+109+117+98+69+118+120+113+113+114+121+96+112+117+118+95+111+105+117}{19}$$

$$M_{pl} = \frac{2.067}{19} = 10,87$$

Item 77

$$M_{Pl} = \frac{104+109+117+98+69+118+120+103+113+113+114+121+96+112+118+95+111+105+117}{19}$$

$$M_{pl} = \frac{2.053}{19} = 10,81$$

Item 78

$$M_{Pl} = \frac{104+109+117+98+69+118+120+103+113+113+114+121+112+118+95+111+105+117}{18}$$

$$M_{pl} = \frac{1.957}{18} = 10,87$$

Item 79

$$M_{Pl} = \frac{109+117+98+110+69+118+120+113+113+114+121+112+118+95+111+105+117}{17}$$

$$M_{pl} = \frac{1.860}{17} = 10,94$$

Item 80

$$M_{Pl} = \frac{88+104+109+117+110+118+120+45+103+113+113+114+121+112+117+118+95+111+105+117}{20}$$

$$M_{pl} = \frac{2.150}{20} = 10,75$$

Item 81

$$M_{Pl} = \frac{88+104+109+117+98+110+69+118+120+45+103+114+121+112+117+118+95+111+63+117}{20}$$

$$M_{pl} = \frac{2.049}{20} = 10,25$$

Item 82

$$M_{Pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+112+117+118+95+111+117}{20}$$

$$M_{pl} = \frac{2.143}{20} = 10,72$$

Item 83

$$M_{Pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+112+117+118+95+111+117}{20}$$

$$M_{pl} = \frac{2.143}{20} = 10,72$$

Item 84

$$M_{Pl} = \frac{88+104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$$

$$M_{pl} = \frac{2.368}{22} = 10,76$$

Item 85

$$M_{Pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$$

$$M_{pl} = \frac{2.344}{22} = 10,65$$

Item 86

$$M_{Pl} = \frac{88+104+109+117+110+118+120+45+103+113+113+114+121+96+112+117+118+111+105+117}{20}$$

$$M_{pl} = \frac{2.359}{20} = 11,79$$

Item 87

$$M_{Pl} = \frac{88+104+109+117+110+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{21}$$

$$M_{pl} = \frac{2.246}{21} = 10,69$$

Item 88

$$M_{Pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+121+96+112+117+118+105+117}{20}$$

$$M_{pl} = \frac{2.138}{20} = 10,69$$

Item 89

$$M_{Pl} = \frac{88+104+109+117+98+110+118+120+45+113+113+114+121+96+112+117+118+95+111+105+117}{21}$$

$M_{pl} = \frac{2.241}{21} = 10,67$

Item 90

$M_{Pl} = \frac{88+104+109+117+110+118+120+103+113+113+114+121+96+117+118+117}{16}$

$M_{pl} = \frac{1.778}{16} = 11,13$

Item 91

$M_{Pl} = \frac{104+109+117+110+118+120+103+113+113+114+121+96+117+118+111+63}{16}$

$M_{pl} = \frac{1.747}{16} = 10,92$

Item 92

$M_{Pl} = \frac{88+104+109+117+98+110+118+120+103+113+113+114+121+96+112+117+118+105+63+117}{20}$

$M_{pl} = \frac{2.156}{20} = 10,78$

Item 93

$M_{Pl} = \frac{88+104+109+117+110+120+113+121+117+118+117}{11}$

$M_{pl} = \frac{1.234}{11} = 11,22$

Item 94

$M_{Pl} = \frac{88+109+117+110+118+120+113+114+121+96+117+118+117}{13}$

$M_{pl} = \frac{1.458}{13} = 11,22$

Item 95

$M_{Pl} = \frac{104+109+117+98+120+113+121+112+117+118+95+105+117}{13}$

$M_{pl} = \frac{1.446}{13} = 11,13$

Item 96

$M_{Pl} = \frac{104+109+117+110+118+120+113+121+96+117+118+117}{12}$

$M_{pl} = \frac{1.360}{12} = 11,33$

Item 97

$M_{Pl} = \frac{104+117+98+110+118+120+113+114+121+96+117+118+105+117}{14}$

$M_{pl} = \frac{1.568}{14} = 11,2$

Item 98

$M_{Pl} = \frac{104+109+117+98+110+118+120+121+96+117+118+105+117}{13}$

$M_{pl} = \frac{1.450}{13} = 11,15$

Item 99

$M_{Pl} = \frac{88+104+109+117+110+118+120+103+114+121+96+112+117+118+95+105+117}{17}$

$M_{pl} = \frac{1.864}{17} = 10,97$

Item 100

$M_{Pl} = \frac{88+104+109+117+98+110+69+118+120+45+103+114+121+112+117+118+95+111+105+117}{20}$

$M_{pl} = \frac{2.091}{20} = 10,46$

Item 101

$M_{Pl} = \frac{88+104+109+117+110+118+120+45+103+113+113+114+121+112+117+118+95+111+105+117}{20}$

$M_{pl} = \frac{2.150}{20} = 10,75$

Item 102

$M_{Pl} = \dfrac{88+104+109+117+98+110+118+120+103+113+113+114+121+112+117+118+111+105+63+117}{20}$

$M_{pl} = \dfrac{2.171}{20} = 10,86$

Item 103

$M_{Pl} = \dfrac{104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{22}$

$M_{pl} = \dfrac{2.325}{22} = 10,57$

Item 104

$M_{Pl} = $

$\dfrac{88+104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+118+95+111+105+117}{23}$

$M_{pl} = \dfrac{2.413}{23} = 10,49$

Item 105

$M_{Pl} = \dfrac{104+109+117+98+110+69+118+120+45+103+113+113+114+121+112+117+118+95+111+105+117}{21}$

$M_{pl} = \dfrac{2.229}{21} = 10,61$

Item 106

$M_{Pl} = \dfrac{104+109+117+98+110+69+118+120+45+103+113+113+114+121+96+112+117+118+111+105+117}{21}$

$M_{pl} = \dfrac{2.230}{21} = 10,62$

Item 107

$M_{Pl} = \dfrac{104+109+117+98+110+69+118+120+103+113+113+114+121+112+117+118+95+111+105+63+117}{21}$

$M_{pl} = \dfrac{2.247}{21} = 10.7$

Item 108

$M_{Pl} = \dfrac{117+98+69+120+45+103+113+113+114+121+96+112+95+111+105+63+117}{17}$

$M_{pl} = \dfrac{1.712}{17} = 10,07$

Item 109

$M_{Pl} = \dfrac{117+98+110+118+113+113+121+96+117+118+95+111+105+117}{14}$

$M_{pl} = \dfrac{1.549}{14} = 11,06$

Item 110

$M_{Pl} = \dfrac{117+98+110+69+118+120+103+113+113+114+121+96+117+118+95+105+117}{17}$

$M_{pl} = \dfrac{1.844}{17} = 10,84$

Item 111

$M_{Pl} = \dfrac{104+109+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+111+105+63+117}{21}$

$M_{pl} = \dfrac{2.248}{21} = 10,70$

Item 112

$M_{Pl} = \dfrac{88+104+117+98+110+69+118+120+103+113+113+114+121+96+112+117+118+111+105}{19}$

$M_{pl} = \dfrac{2.047}{19} = 10,77$

Item 113

$M_{Pl} = \dfrac{88+104+117+98+69+118+120+103+113+113+114+121+96+112+117+118+111+105+117}{19}$

$M_{pl} = \dfrac{2.054}{19} = 10,81$

Item 114

$M_{Pl} = \dfrac{88+104+117+98+69+120+45+103+113+114+96+112+118+111+105}{15}$

$M_{pl} = \frac{1.513}{15} = 10,08$

Item 115

$M_{Pl} = \frac{88+104+109+117+98+110+69+118+120+103+113+113+114+96+112+117+96+118+95+111+105+117}{22}$

$M_{pl} = \frac{2.343}{22} = 10,65$

Item 116

$M_{Pl} = \frac{88+104+109+98+110+69+118+120+45+113+113+114+96+112+117+96+118+111+105+63+117}{21}$

$M_{pl} = \frac{2.136}{21} = 10,17$

Item 117

$M_{Pl} = \frac{88+104+109+117+98+110+118+120+45+103+113+113+114+96+112+117+96+118+95+111+105+117}{22}$

$M_{pl} = \frac{2.319}{22} = 10,54$

Item 118

$M_{Pl} = \frac{88+104+117+98+110+69+118+120+45+113+113+96+112+117+96+118+111+105+63+117}{20}$

$M_{pl} = \frac{2.030}{20} = 10,15$

Item 119

$M_{Pl} = \frac{88+104+109+117+98+110+118+120+103+113+113+96+112+117+96+118+95+111+105+117}{20}$

$M_{pl} = \frac{2.160}{20} = 108$

Item 120

$M_{Pl} = \frac{104+117+98+110+118+120+113+113+114+96+112+117+96+118+63+111+105+117}{18}$

$M_{pl} = \frac{1.942}{18} = 10,78$

Item 121

$M_{Pl} = \frac{104+109+117+98+110+118+120+113+113+114+121+112+117+118+111+105+63+117}{18}$

$M_{pl} = \frac{1.980}{18} = 11,0$

Item 122

$M_{Pl} = \frac{104+117+98+110+118+120+113+113+121+112+117+118+111+105+63+117}{16}$

$M_{pl} = \frac{1.757}{16} = 10,98$

Item 123

$M_{Pl} = \frac{104+117+98+110+120+113+113+121+112+117+118+111+105+63+117}{15}$

$M_{pl} = \frac{1.639}{15} = 10,92$

Item 124

$M_{Pl} = \frac{88+117+109+110+120+113+113+114+121+112+117+118+111+63+117}{15}$

$M_{pl} = \frac{1.643}{15} = 10,95$

Item 125

$M_{Pl} = \frac{88+117+98+110+69+118+120+103+113+114+121+96+112+117+118+95+111+105+63+117}{20}$

$M_{pl} = \frac{2.105}{20} = 10,52$

4. Calculation of the formulation $r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$

Item 1

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,25 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{-0,07}{20.11} \sqrt{9}$$

$r_{pbi} = -0,035 \times 3 = -0,152$

Item 2

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,49 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,17}{20.11} \sqrt{9}$$

$r_{pbi} = 0,085 \times 3 = 0,304$

Item 3

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,57 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,25}{20.11} \sqrt{9}$$

$r_{pbi} = 0,012 \times 3 = 0,463$

Item 4

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,61 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,29}{20.11} \sqrt{9}$$

$r_{pbi} = 0,014 \times 3 = 0,433$

Item 5

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,27 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{-0,05}{20.11} \sqrt{9}$$

$r_{pbi} = -0,024 \times 3 = -0,075$

Item 6

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,57 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,25}{20.11} \sqrt{9}$$

$r_{pbi} = 0,012 \times 3 = 0,463$

Item 7

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$r_{pbi} = \dfrac{10,02-10,32}{20.11} \sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{-0,3}{20.11} \sqrt{2,33}$

$r_{pbi} = -0,015 \times 1,53 = 0,228$

Item 8

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,03-10,32}{20.11} \sqrt{\dfrac{0.7}{0.3}}$

$r_{pbi} = \dfrac{0,29}{20.11} \sqrt{2,33}$

$r_{pbi} = 0,014 \times 1,53 = 0,214$

Item 9

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{11,25-10,32}{20.11} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{0,93}{20.11} \sqrt{4}$

$r_{pbi} = 0,046 \times 2 = 0,255$

Item 10

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,27-10,32}{20.11} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0,05}{20.11} \sqrt{9}$

$r_{pbi} = 0,025 \times 3 = 0,074$

Item 11

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,93-10,32}{20.11} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{0,61}{20.11} \sqrt{4}$

$r_{pbi} = 0,303 \times 2 = 0,606$

Item 12

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,61-10,32}{20.11} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0,29}{20.11} \sqrt{9}$

$r_{pbi} = 0,144 \times 3 = 0,432$

Item 13

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,70-10,32}{20.11} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0,38}{20.11} \sqrt{9}$

$r_{pbi} = 0,189$ x $3 = 0,567$

Item 14

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,73-10,32}{20.11}\sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,41}{20.11}\sqrt{9}$$

$r_{pbi} = 0,020$ x $3 = 0,612$

Item 15

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,57-10,32}{20.11}\sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,25}{20.11}\sqrt{9}$$

$r_{pbi} = 0,012$ x $3 = 0,462$

Item 16

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,65-10,32}{20.11}\sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,33}{20.11}\sqrt{9}$$

$r_{pbi} = 0,016$ x $3 = 0,582$

Item 17

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,56-10,32}{20.11}\sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,24}{20.11}\sqrt{9}$$

$r_{pbi} = 0,012$ x $3 = 0,448$

Item 18

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,74-10,32}{20.11}\sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,42}{20.11}\sqrt{9}$$

$r_{pbi} = 0,020$ x $3 = 0,626$

Item 19

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,57-10,32}{20.11}\sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,25}{20.11}\sqrt{9}$$

$r_{pbi} = 0,012$ x $3 = 0,462$

Item 20

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$r_{pbi} = \dfrac{10,56-10,32}{20.11} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0,24}{20.11} \sqrt{9}$

$r_{pbi} = 0,011 \text{ x } 3 = 0,470$

Item 21

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,74-10,32}{20.11} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0,42}{20.11} \sqrt{9}$

$r_{pbi} = 0,020 \text{ x } 3 = 0,626$

Item 22

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,36-10,32}{20.11} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{0,04}{20.11} \sqrt{4}$

$r_{pbi} = 0,019 \text{ x } 2 = 0,487$

Item 23

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,67-10,32}{20.11} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{0,44}{20.11} \sqrt{4}$

$r_{pbi} = 0,022 \text{ x } 2 = 0,437$

Item 24

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,31-10,32}{20.11} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0,01}{20.11} \sqrt{9}$

$r_{pbi} = 0,004 \text{ x } 3 = 0,002$

Item 25

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,73-10,32}{20.11} \sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{0,41}{20.11} \sqrt{4}$

$r_{pbi} = 0,020 \text{ x } 2 = 0,407$

Item 26

$r_{pbi} = \dfrac{Mp-Mt}{SDt} \sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10,81-10,32}{20.11} \sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0,49}{20.11} \sqrt{9}$

$r_{pbi} = 0{,}024 \times 3 = 0{,}730$

Item 27

$r_{pbi} = \dfrac{Mp - Mt}{SDt}\sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10{,}69 - 10{,}32}{20.11}\sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{0{,}37}{20.11}\sqrt{4}$

$r_{pbi} = 0{,}018 \times 2 = 0{,}457$

Item 28

$r_{pbi} = \dfrac{Mp - Mt}{SDt}\sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10{,}28 - 10{,}32}{20.11}\sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0{,}04}{20.11}\sqrt{9}$

$r_{pbi} = 0{,}019 \times 3 = 0{,}059$

Item 29

$r_{pbi} = \dfrac{Mp - Mt}{SDt}\sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10{,}34 - 10{,}32}{20.11}\sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0{,}02}{20.11}\sqrt{9}$

$r_{pbi} = 0{,}009 \times 3 = 0{,}029$

Item 30

$r_{pbi} = \dfrac{Mp - Mt}{SDt}\sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10{,}56 - 10{,}32}{20.11}\sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0{,}24}{20.11}\sqrt{9}$

$r_{pbi} = 0{,}012 \times 3 = 0{,}448$

Item 31

$r_{pbi} = \dfrac{Mp - Mt}{SDt}\sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10{,}75 - 10{,}32}{20.11}\sqrt{\dfrac{0.9}{0.1}}$

$r_{pbi} = \dfrac{0{,}43}{20.11}\sqrt{9}$

$r_{pbi} = 0{,}021 \times 3 = 0{,}641$

Item 32

$r_{pbi} = \dfrac{Mp - Mt}{SDt}\sqrt{\dfrac{p}{q}}$

$r_{pbi} = \dfrac{10{,}97 - 10{,}32}{20.11}\sqrt{\dfrac{0.8}{0.2}}$

$r_{pbi} = \dfrac{0{,}65}{20.11}\sqrt{4}$

$r_{pbi} = 0{,}032 \times 2 = 0{,}646$

Item 33

$r_{pbi} = \dfrac{Mp - Mt}{SDt}\sqrt{\dfrac{p}{q}}$

$$r_{pbi} = \frac{10,73-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,41}{20.11} \sqrt{4}$$

$r_{pbi} = 0,020 \text{ x } 2 = 0,407$

Item 34

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,74-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,42}{20.11} \sqrt{4}$$

$r_{pbi} = 0,021 \text{ x } 2 = 0,417$

Item 35

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,86-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,54}{20.11} \sqrt{4}$$

$r_{pbi} = 0,026 \text{ x } 2 = 0,537$

Item 36

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,74-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,42}{20.11} \sqrt{4}$$

$r_{pbi} = 0,020 \text{ x } 2 = 0,417$

Item 37

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,69-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,37}{20.11} \sqrt{9}$$

$r_{pbi} = 0,018 \text{ x } 3 = 0,551$

Item 38

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,78-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,46}{20.11} \sqrt{9}$$

$r_{pbi} = 0,022 \text{ x } 3 = 0,686$

Item 39

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,37-10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,05}{20.11} \sqrt{2,33}$$

$r_{pbi} = 0,002 \times 1,52 = 0,046$

Item 40

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,83-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,51}{20.11} \sqrt{4}$$

$r_{pbi} = 0,025 \times 2 = 0,507$

Item 41

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,66-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,34}{20.11} \sqrt{9}$$

$r_{pbi} = 0,016 \times 3 = 0,507$

Item 42

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,73-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,41}{20.11} \sqrt{4}$$

$r_{pbi} = 0,020 \times 2 = 0,407$

Item 43

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,71-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,39}{20.11} \sqrt{9}$$

$r_{pbi} = 0,019 \times 3 = 0,581$

Item 44

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,13-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,19}{20.11} \sqrt{4}$$

$r_{pbi} = 0,009 \times 2 = 0,188$

Item 45

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,94-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,62}{20.11} \sqrt{4}$$

r_{pbi} = 0,030 x 2 = 0,610

Item 46

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,60-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,28}{20.11} \sqrt{9}$$

r_{pbi} = 0,014 x 3 = 0,417

Item 47

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,56-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,24}{20.11} \sqrt{9}$$

r_{pbi} = 0,012 x 3 = 0,448

Item 48

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,69-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,37}{20.11} \sqrt{4}$$

r_{pbi} = 0,018 x 2 = 0,457

Item 49

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,56-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,24}{20.11} \sqrt{9}$$

r_{pbi} = 0,012 x 3 = 0,448

Item 50

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,56-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,24}{20.11} \sqrt{9}$$

r_{pbi} = 0,012 x 3 = 0,448

Item 51

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,95-10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,63}{20.11} \sqrt{233}$$

r_{pbi} = 0,031 x 1,53 = 0,479

Item 52

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,81-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,49}{20.11} \sqrt{4}$$

$$r_{pbi} = 0,024 \text{ x } 2 = 0,487$$

Item 53

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,63-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,31}{20.11} \sqrt{9}$$

$$r_{pbi} = 0,015 \text{ x } 3 = 0,462$$

Item 54

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,56-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,24}{20.11} \sqrt{9}$$

$$r_{pbi} = 0,012 \text{ x } 3 = 0,448$$

Item 55

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,53-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,21}{20.11} \sqrt{4}$$

$$r_{pbi} = 0,010 \text{ x } 2 = 0,208$$

Item 56

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,78-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,46}{20.11} \sqrt{4}$$

$$r_{pbi} = 0,023 \text{ x } 2 = 0,457$$

Item 57

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,72-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,4}{20.11} \sqrt{4}$$

$$r_{pbi} = 0,019 \text{ x } 2 = 0,487$$

Item 58

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11,05-10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,73}{20.11} \sqrt{233}$$

$r_{pbi} = 0,036 \times 1,52 = 0,552$

Item 59

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,57-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,25}{20.11} \sqrt{9}$$

$r_{pbi} = 0,012 \times 3 = 0,452$

Item 60

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,26-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,06}{20.11} \sqrt{9}$$

$r_{pbi} = 0,002 \times 3 = 0,089$

Item 61

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,76-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,44}{20.11} \sqrt{9}$$

$r_{pbi} = 0,022 \times 3 = 0,656$

Item 62

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,26-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,06}{20.11} \sqrt{9}$$

$r_{pbi} = 0,003 \times 3 = 0,089$

Item 63

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,78-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,46}{20.11} \sqrt{9}$$

$r_{pbi} = 0,032 \times 3 = 0,686$

Item 64

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,76-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,44}{20.11} \sqrt{9}$$

r_{pbi} = 0,022 x 3 = 0,656

Item 65

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,78-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,37}{20.11} \sqrt{9}$$

r_{pbi} = 0,018 x 3 = 0,552

Item 66

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,65-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,33}{20.11} \sqrt{9}$$

r_{pbi} = 0,016 x 3 = 0,492

Item 67

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,71-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,39}{20.11} \sqrt{9}$$

r_{pbi} = 0,019 x 3 = 0,581

Item 68

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,75-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,43}{20.11} \sqrt{4}$$

r_{pbi} = 0,021 x 2 = 0,427

Item 69

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,72-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,4}{20.11} \sqrt{4}$$

r_{pbi} = 0,019 x 2 = 0,487

Item 70

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,65-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,33}{20.11} \sqrt{9}$$

r_{pbi} = 0,016 x 3 = 0,492

Item 71

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,63-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,31}{20.11} \sqrt{9}$$

$r_{pbi} = 0,015$ x $3 = 0,462$

Item 72

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,62-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,3}{20.11} \sqrt{9}$$

$r_{pbi} = 0,014$ x $3 = 0,447$

Item 73

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,83-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,5}{20.11} \sqrt{4}$$

$r_{pbi} = 0,025$ x $2 = 0,497$

Item 74

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,83-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,5}{20.11} \sqrt{4}$$

$r_{pbi} = 0,025$ x $2 = 0,497$

Item 75

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,97-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,65}{20.11} \sqrt{4}$$

$r_{pbi} = 0,032$ x $2 = 0,646$

Item 76

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,87-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,55}{20.11} \sqrt{4}$$

$r_{pbi} = 0,027$ x $2 = 0,547$

Item 77

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,81-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,49}{20.11} \sqrt{4}$$

$r_{pbi} = 0,024$ x $2 = 0,487$

Item 78

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,87 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,55}{20.11} \sqrt{4}$$

$r_{pbi} = 0,027$ x $2 = 0,546$

Item 79

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,94 - 10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,62}{20.11} \sqrt{233}$$

$r_{pbi} = 0,031$ x $1,52 = 0,468$

Item 80

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,75 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,43}{20.11} \sqrt{4}$$

$r_{pbi} = 0,021$ x $2 = 0,427$

Item 81

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,25 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,07}{20.11} \sqrt{4}$$

$r_{pbi} = 0,003$ x $2 = 0,069$

Item 82

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,72 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,4}{20.11} \sqrt{4}$$

$r_{pbi} = 0,019$ x $2 = 0,487$

Item 83

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,72 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,4}{20.11} \sqrt{4}$$

$r_{pbi} = 0,019$ x $2 = 0,487$

Item 84

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,76-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,44}{20.11} \sqrt{9}$$

r_{pbi} = 0,022 x 3 = 0,656

Item 85

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,65-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,33}{20.11} \sqrt{9}$$

r_{pbi} = 0,016 x 3 = 0,492

Item 86

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11,79-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,47}{20.11} \sqrt{4}$$

r_{pbi} = 0,023 x 2 = 0,467

Item 87

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,69-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,37}{20.11} \sqrt{4}$$

r_{pbi} = 0,018 x 2 = 0,457

Item 88

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,69-10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,37}{20.11} \sqrt{4}$$

r_{pbi} = 0,018 x 2 = 0,457

Item 89

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,67-10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,35}{20.11} \sqrt{9}$$

r_{pbi} = 0,017 x 3 = 0,522

Item 90

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11,13-10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,81}{20.11} \sqrt{233}$$

$r_{pbi} = 0{,}040 \times 1{,}52 = 0{,}612$

Item 91

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}92 - 10{,}32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0{,}6}{20.11} \sqrt{233}$$

$r_{pbi} = 0{,}029 \times 1{,}52 = 0{,}453$

Item 92

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}78 - 10{,}32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0{,}46}{20.11} \sqrt{4}$$

$r_{pbi} = 0{,}023 \times 2 = 0{,}457$

Item 93

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11{,}22 - 10{,}32}{20.11} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{0{,}9}{20.11} \sqrt{1}$$

$r_{pbi} = 0{,}045 \times 1 = 0{,}447$

Item 94

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11{,}21 - 10{,}32}{20.11} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{0{,}89}{20.11} \sqrt{1}$$

$r_{pbi} = 0{,}044 \times 1 = 0{,}442$

Item 95

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11{,}13 - 10{,}32}{20.11} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{0{,}9}{20.11} \sqrt{1}$$

$r_{pbi} = 0{,}045 \times 1 = 0{,}448$

Item 96

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11,33 - 10,32}{20.11} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{1,01}{20.11} \sqrt{1}$$

$r_{pbi} = 0,050 \text{ x } 1 = 0,502$

Item 97

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11,2 - 10,32}{20.11} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{0,89}{20.11} \sqrt{1,5}$$

$r_{pbi} = 0,044 \text{ x },22 = 0,442$

Item 98

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11,15 - 10,32}{20.11} \sqrt{\frac{0.5}{0.5}}$$

$$r_{pbi} = \frac{0,83}{20.11} \sqrt{1}$$

$r_{pbi} = 0,041 \text{ x } 1 = 0,412$

Item 99

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,97 - 10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,65}{20.11} \sqrt{2,33}$$

$r_{pbi} = 0,032 \text{ x } 1,52 = 0,491$

Item 100

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,46 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,14}{20.11} \sqrt{4}$$

$r_{pbi} = 0,032 \text{ x } 2 = 0,139$

Item 101

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,75 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,43}{20.11} \sqrt{4}$$

$r_{pbi} = 0,021 \text{ x } 2 = 0,428$

Item 102

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,86 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,54}{20.11} \sqrt{4}$$

$$r_{pbi} = 0,027 \text{ x } 2 = 0,537$$

Item 103

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,57 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,25}{20.11} \sqrt{9}$$

$$r_{pbi} = 0,012 \text{ x } 3 = 0,462$$

Item 104

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,49 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,17}{20.11} \sqrt{9}$$

$$r_{pbi} = 0,0085 \text{ x } 3 = 0,253$$

Item 105

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,61 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,29}{20.11} \sqrt{9}$$

$$r_{pbi} = 0,014 \text{ x } 3 = 0,432$$

Item 106

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,62 - 10,32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0,3}{20.11} \sqrt{9}$$

$$r_{pbi} = 0,015 \text{ x } 3 = 0,447$$

Item 107

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,7 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,38}{20.11} \sqrt{4}$$

$$r_{pbi} = 0,019 \text{ x } 2 = 0,467$$

Item 108

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,07 - 10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,25}{20.11} \sqrt{2,33}$$

$r_{pbi} = 0,012$ x $1,5 = 0,186$

Item 109

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11,06 - 10,32}{20.11} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{0,74}{20.11} \sqrt{1,5}$$

$r_{pbi} = 0,037$ x $1,2 = 0,442$

Item 110

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,84 - 10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,52}{20.11} \sqrt{2,3}$$

$r_{pbi} = 0,025$ x $1,5 = 0,477$

Item 111

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,70 - 10,32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,38}{20.11} \sqrt{4}$$

$r_{pbi} = 0,019$ x $2 = 0,468$

Item 112

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,77 - 10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,45}{20.11} \sqrt{2,3}$$

$r_{pbi} = 0,022$ x $1,5 = 0,424$

Item 113

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,81 - 10,32}{20.11} \sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,49}{20.11} \sqrt{2,3}$$

$r_{pbi} = 0,024$ x $1,5 = 0,455$

Item 114

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,08 - 10,32}{20.11} \sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{0,24}{20.11} \sqrt{1,5}$$

$r_{pbi} = 0,012$ x $1,2 = 0,143$

Item 115

$$r_{pbi} = \frac{Mp-Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}65 - 10{,}32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0{,}33}{20.11} \sqrt{9}$$

$r_{pbi} = 0{,}016 \times 3 = 0{,}492$

Item 116

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}17 - 10{,}32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0{,}15}{20.11} \sqrt{9}$$

$r_{pbi} = 0{,}007 \times 3 = 0{,}223$

Item 117

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}54 - 10{,}32}{20.11} \sqrt{\frac{0.9}{0.1}}$$

$$r_{pbi} = \frac{0{,}22}{20.11} \sqrt{9}$$

$r_{pbi} = 0{,}011 \times 3 = 0{,}417$

Item 118

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}15 - 10{,}32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0{,}17}{20.11} \sqrt{4}$$

$r_{pbi} = 0{,}008 \times 2 = 0{,}169$

Item 119

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}8 - 10{,}32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0{,}48}{20.11} \sqrt{4}$$

$r_{pbi} = 0{,}023 \times 2 = 0{,}477$

Item 120

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10{,}98 - 10{,}32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0{,}66}{20.11} \sqrt{4}$$

$r_{pbi} = 0{,}032 \times 2 = 0{,}656$

Item 121

$$r_{pbi} = \frac{Mp - Mt}{SDt} \sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{11{,}0 - 10{,}32}{20.11} \sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0{,}68}{20.11} \sqrt{4}$$

$r_{pbi} = 0,033 \text{ x } 2 = 0,676$

Item 122

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,98-10,32}{20.11}\sqrt{\frac{0.7}{0.3}}$$

$$r_{pbi} = \frac{0,66}{20.11}\sqrt{2,3}$$

$r_{pbi} = 0,032 \text{ x } 1,5 = 0,483$

Item 123

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,92-10,32}{20.11}\sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{0,6}{20.11}\sqrt{1,5}$$

$r_{pbi} = 0,029 \text{ x } 1,2 = 0,448$

Item 124

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,95-10,32}{20.11}\sqrt{\frac{0.6}{0.4}}$$

$$r_{pbi} = \frac{0,63}{20.11}\sqrt{1,5}$$

$r_{pbi} = 0,031 \text{ x } 1,2 = 0,465$

Item 125

$$r_{pbi} = \frac{Mp-Mt}{SDt}\sqrt{\frac{p}{q}}$$

$$r_{pbi} = \frac{10,52-10,32}{20.11}\sqrt{\frac{0.8}{0.2}}$$

$$r_{pbi} = \frac{0,2}{20.11}\sqrt{4}$$

$r_{pbi} = 0,009 \text{ x } 2 = 0,198$

APPENDIX 6

TABLE OF THE VALUE OF TEST VALIDITY

No	r-count	r-table	Status
1	0,152	0,404	Invalid
2	0,304	0,404	Invalid
3	0,463	0,404	Valid
4	0,433	0,404	Valid
5	0,075	0,404	Invalid
6	0,463	0,404	Valid
7	0,228	0,404	Invalid
8	0,214	0,404	Invalid
9	0,255	0,404	Invalid
10	0,074	0,404	Invalid
11	0,606	0,404	Valid
12	0,432	0,404	Valid
13	0,567	0,404	Valid
14	0,612	0,404	Valid
15	0,462	0,404	Valid
16	0,582	0,404	Valid
17	0,448	0,404	Valid
18	0,626	0,404	Valid
19	0,462	0,404	Valid
20	0,470	0,404	Valid
21	0,626	0,404	Valid
22	0,487	0,404	Valid
23	0,437	0,404	Valid
24	0,002	0,404	Invalid
25	0,407	0,404	Valid
26	0,730	0,404	Valid
27	0,457	0,404	Valid
28	0,059	0,404	Invalid
29	0,029	0,404	Invalid
30	0,448	0,404	Valid
31	0,641	0,404	Valid
32	0,646	0,404	Valid
33	0,407	0,404	Valid
34	0,417	0,404	Valid
35	0,537	0,404	Valid
36	0,417	0,404	Valid
37	0,551	0,404	Valid
38	0,686	0,404	Valid
39	0,046	0,404	Invalid
40	0,507	0,404	Valid
41	0,507	0,404	Valid
42	0,407	0,404	Valid
43	0,581	0,404	Valid
44	0,188	0,404	Invalid

45	0,616	0,404	Valid
46	0,417	0,404	Valid
47	0,448	0,404	Valid
48	0,457	0,404	Valid
49	0,448	0,404	Valid
50	0,637	0,404	Valid
51	0,479	0,404	Valid
52	0,487	0,404	Valid
53	0,462	0,404	Valid
54	0,448	0,404	Valid
55	0,208	0,404	Invalid
56	0,457	0,404	Valid
57	0,487	0,404	Valid
58	0,552	0,404	Valid
59	0,452	0,404	Valid
60	0,089	0,404	Invalid
61	0,656	0404	Valid
62	0,089	0,404	Invalid
63	0,686	0,404	Valid
64	0,656	0.404	Valid
65	0,552	0,404	Valid
66	0,492	0,404	Valid
67	0,581	0,404	Valid
68	0,427	0,404	Valid
69	0,487	0,404	Valid
70	0,492	0,404	Valid
71	0,462	0,404	Valid
72	0,447	0,404	Valid
73	0,497	0,404	Valid
74	0,539	0,404	Valid
75	0,646	0,404	Valid
76	0,547	0,404	Valid
77	0,487	0,404	Valid
78	0,546	0,404	Valid
79	0,468	0,404	Valid
80	0,427	0,404	Valid
81	0,069	0,404	Invalid
82	0,487	0,404	Valid
83	0,487	0,404	Valid
84	0,656	0,404	Valid
85	0,492	0,404	Valid
86	0,467	0,404	Valid
87	0,457	0,404	Valid
88	0,457	0,404	Valid
89	0,522	0,404	Valid
90	0,612	0,404	Valid
91	0,453	0,404	Valid
92	0,457	0,404	Valid

93	0,447	0,404	Valid
94	0,442	0,404	Valid
95	0,448	0,404	Valid
96	0,502	0,404	Valid
97	0,442	0,404	Valid
98	0,412	0,404	Valid
99	0,491	0,404	Valid
100	0,139	0,404	Invalid
101	0,428	0,404	Valid
102	0,537	0,404	Valid
103	0,462	0,404	Valid
104	0,253	0,404	Invalid
105	0,432	0,404	Valid
106	0,447	0,404	Valid
107	0,467	0,404	Valid
108	0,186	0,404	Invalid
109	0,442	0,404	Valid
110	0,477	0,404	Valid
111	0,468	0,404	Valid
112	0,424	0,404	Valid
113	0,455	0,404	Valid
114	0,143	0,404	Invalid
115	0,492	0,404	Valid
116	0,223	0,404	Invalid
117	0,417	0,404	Valid
118	0,169	0,404	Invalid
119	0,477	0,404	Valid
120	0,656	0,404	Valid
121	0,676	0,404	Valid
122	0,483	0,404	Valid
123	0,448	0,404	Valid
124	0,465	0,404	Valid
125	0,198	0,404	Invalid

APPENDIX 7

Table of Reliability Test

Ganjil	Genap
jumlah	
Ganjil	Genap
44	44
51	53
56	53
59	58
49	49
54	56
32	37
59	59
59	61
21	24
52	51
57	56
57	56
57	57
61	60
47	49
56	56
60	57
61	57
52	43
57	54
55	50
31	32
59	58
r-hitung	0.961979
Spearman	0.980621
r-tabel	0,404
simpulan	Reliabel

APPANDIX 8

**The score of vocabulary (X) for the eight grade
students of MTs Al-ansor Padangsidimpuan**

No	Participants	Score
1	Ak	70
2	Ar	65
3	Ek	70
4	Fms	55
5	Ind	75
6	Mi	60
7	Nda	80
8	Npn	53
9	Nrr	82
10	Nph	68
11	Nkl	75
12	Np	50
13	Pah	90
14	Ps	70
15	Ra	60
16	Rf	90
17	Rds	75
18	Rhr	87
19	Sah	69
20	Snfs	95
21	Sys	65
22	Sses	85
23	Wns	80
24	Znp	75
Total score (Σ)		1.744

APPANDIX 9

The score of writing descriptive text (X) for the eight grade students of MTs Al-ansor Padangsidimpuan

No	Participants	Score
1	Ak	70
2	Ar	75
3	Ek	60
4	Fms	78
5	Ind	55
6	Mi	67
7	Nda	70
8	Npn	60
9	Nrr	75
10	Nph	65
11	Nkl	55
12	Np	82
13	Pah	85
14	Ps	65
15	Ra	90
16	Rf	85
17	Rds	57
18	Rhr	70
19	Sah	72
20	Snfs	70
21	Sys	90
22	Sses	80
23	Wns	62
24	Znp	80
Total score (Σ)		1.718

APPENDIX 10

The correlation analisis between the students vocabulary
(X) and writing descriptive text(Y)

No	Initial	X	Y	X^2	Y^2	XY
1	Ak	70	75	4.900	5.625	5.250
2	Ar	65	70	4.225	4.900	4.550
3	Ek	70	60	4.900	3.600	4.200
4	Fms	55	78	3.025	6.084	4.290
5	Ind	75	55	5.625	3.025	4.125
6	Mi	60	67	3.600	4.489	4.020
7	Nda	80	70	6.400	4.900	5.600
8	Npb	53	60	2.809	3.600	3.180
9	Nrr	82	75	6.724	5.625	6.150
10	Nph	68	65	4.624	4.225	4.420
11	Nkl	75	55	5.625	3.025	4.125
12	Np	50	82	2.500	6.724	4.100
13	Pah	90	85	8.100	7.225	7.650
14	Ps	70	65	4.900	4.225	4.550
15	Ra	60	90	3.600	8.100	5.400
16	Rf	90	85	8.100	7.225	7.650
17	Rds	75	57	5.625	3.249	4.275
18	Rhr	87	70	7.569	4.900	6.090
19	Sah	69	72	4.761	5.184	4.824
20	Snfs	95	70	9.025	4.900	6.650
21	Sys	65	62	4.225	3.844	4.030
22	Sses	85	80	7.225	6.400	6.800
23	Wns	80	90	6.400	8.100	7.200
24	Znp	75	80	5.625	6.400	6.000
		1.744	1.958	130.110	115.490	107.529

APPENDIX 11

Variable X
(Vocabulary)

1. Maximal and minimum score were gotten by setting the variable score from low score to high score:

50	53	55	60	60	65	65	68
69	70	70	70	75	75	75	75
80	80	82	85	87	90	90	95

2. High score = 95

3. Low score = 50

4. Range = high score – low score = 95 – 50 = 45

5. Total score class (BK) $\quad$ = 1 + 3,3 log n

$\qquad\qquad\qquad\qquad$ = 1 + 3,3 log 24

$\qquad\qquad\qquad\qquad$ = 1 + 3,3 (1,380)

$\qquad\qquad\qquad\qquad$ = 1 + 4, 554

$\qquad\qquad\qquad\qquad$ = 5,554

$\qquad\qquad\qquad\qquad$ = 5

6. Interval $= \frac{jangkauan}{banyak\ kelas} = \frac{45-20}{5,554} = \frac{45}{5,554} = 9$

No	Interval Class	F	X	FX	Fkb	Fka	percentages
1	50 – 58	3	54	162	N=24	3	12,5%
2	59 – 67	4	63	252	21	7	16,66%
3	68 – 76	8	72	576	17	15	33,33%
4	77 – 85	5	81	405	9	20	20,83%
5	86 – 95	4	90	360	4	N=24	16,66%
	Total	**N=24**	-	**ΣFX= 1.755**	-	-	**100%**

7. Mean $= \frac{FX}{N} = \frac{1.755}{24} = 73.12$

8. Median = 70 +73 = 143 : 2 = 71,5

9. Modus = 75

APPENDIX 12

<div align="center">

Variable Y
(Writing Descriptive Text)
</div>

1. Maximal and minimum score were gotten by setting the varibale score from low score to high score

55	55	57	60	60	63	65
65	67	70	70	70	70	72
75	75	78	80	80	82	85
85	90	90				

2. High score = 90
3. Low score = 55
4. Range = high score – low score 90 – 55 = 35
5. The total class (BK) = 1 + 3.3 log n
$$= 1 + 3.3 \log 24$$
$$= 1 + 3.3 \ (1,380)$$
$$= 1 + 4,554$$
$$= 5,554$$
$$= 5$$
6. Interval $= \frac{R}{BK} = \frac{35}{5} = 7$

No	Interval	F	X	FX	Fkb	Fka	Percentages
1	55 – 61	5	58	290	N = 24	4	20,83%
2	62 – 68	4	65	260	19	9	16,66%
3	69 – 75	7	72	504	15	13	29,16%
4	76 – 82	4	79	316	8	20	16,66%
5	83 – 90	4	86	344	4	24	16,66%
	Total	24	-	ΣFX =1,714	-	-	100%

7. Mean $= \frac{FX}{N} = \frac{1,714}{24} = 71.41$

8. Median = 70 + 70 = 140 : 2 = 70

9. Modus = 70

APPENDIX 13

NORMALITY OF DATA X

a. **Normality of data X (vocabulary)**

Interval	Fi	Xi	Fixi	Xi²	Fixi²
50 – 58	3	54	162	2.916	26.244
59 – 67	4	63	252	3.969	63.504
68 – 76	8	72	576	5.184	331.776
77 – 85	5	81	405	6.561	164.025
86 – 95	4	90	360	8.100	129.600
i=9	**Σfi = 24**		**Σfixi = 1.755**		**ixi²=715.149**

$$SD = \frac{\Sigma fi\,(Xi-X)^2}{n-1}$$

$$= \frac{715149}{24-1}$$

$$= \sqrt{31093}$$

$$= 17.63$$

Table of Normality Data Test with Chi Kuadrat Formula

Interval Of Score	Real upper Limit	z- score	Limit of Large Are	Large of Area	F_h	F_0	$\frac{(f^0 - fh)^2}{fh}$
50 – 58	49,5	-1,33	0.4082	0.1172	2.81	3	0.0128
59 – 67	58,5	-0,82	0.2910	0.1731	4.15	4	0.0054
68 – 76	67,5	-0,31	0.1179	0.1932	4.63	8	2.4528
77 – 85	76,5	0,19	0.0753	0.0426	1.22	5	1.1711
86 – 95	85,5	0,70	0.2580	0.1827	4.38	4	0.0329
					X^2	3.675	

Based on the table above, found that $X^2_{count} = 3.675$ while $X^2_{Table} = 9.488$ on taraf

significant 5%. Because $X^2_{count} < X^2_{Table}$ (3.675 < 9.488) with the degree of freedom (dk) =

5-1 = 4 and significant level 5% (0.05) distribution of data X (Vocabulary) is normal.

b. **Normality of data Y (Writing Descriptive Text)**

Interval	Fi	Xi	Fixi	Xi^2	Fixi^2
55 – 61	4	58	232	3364	53824
62 – 68	5	65	325	4225	105625
69 – 75	7	72	504	5184	254016
76 – 82	4	79	316	6241	99856
83 – 90	4	86	344	7396	118336
			1721		**631657**

$$SD = \frac{\Sigma f i\,(Xi - X)^2}{n-1}$$

$$= \frac{631657}{24-1}$$

$$= \sqrt{27463}$$

$$= 16.57$$

Table of normality data test with chi kuadrat formula

Interval	Real Upper Limit	Z – Score	Limit of arge area	Large Of area	F_h	F_0	$\dfrac{(f0 - fh)^2}{fh}$
55 – 61	54,5	-1.02	0.3531	0.1307	3.13	4	0.2418
62 – 68	61,5	-0.59	0.2224	0.1549	3.71	5	0.4485
69 – 75	68,5	-0.17	0.0675	0.1623	3.89	7	2.4864
76 – 82	75,5	0.24	0.0948	0.0273	0.65	4	1.7265
83 – 90	82,5	0.66	0.2454	0.1506	3.61	4	0.0421
							4.944

INTERVIEW DOCUMENTATION

TEST DOCUMENTATION

CURRICULUM VITAE

A. **Identity**

Name : Mardiana Siregar

NIM : 1620300054

Place and Birthday : Bakkudu, 21 juni 1997

Gender : Female

Religion : Islam

Adress : Bakkudu, kec. Halongonan, Kab.

Padang Lawas Utara

B. **Parent**

1. Father's name : Sahrim Siregar

2. Mothers name : Fatimah Harahap

C. **Education Background**

1. Elementary School : SDN 100780 Rokan Baru

2. Junior High School : Mts Syahbuddin Aeg Nauli

3. Senior High School : MAS Ahmadul Jariah Kotapinang

4. Collage : IAIN Padangsidimpuan

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

Nomor : 69 /In.14/E.6a/PP.00.9/09/2019   16 September 2019
Lamp : -
Perihal : **Pengesahan Judul dan Pembimbing Skripsi**

Kepada Yth:
1. Dr. Fitriadi Lubis, M. Pd   (Pembimbing I)
2. Fitri Rayani. M. Hum   (Pembimbing II)

di–Padangsidimpuan

Assalamu'alaikum Wr. Wb.
Dengan hormat, sehubungan dengan hasil sidang bersama tim pengkaji judul skripsi Program StudiTadris/Pendidikan 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   : Mardiana Siregar
NIM   : 16 203 00054
Fak/Jurusan   : Tarbiyah dan Ilmu Keguruan/ Tadris Bahasa Inggris
Judul Skripsi : **The Correlation Between Vocabulary and**
                 Writing Descriptive Text Mastery at the Grade
                 VIII Students of MTsS Al – Ansor
                 Padangsidimpuan in The Academic Years
                 2019/2020

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

Ketua Program Studi Tadris Bahasa Inggris

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

PERNYATAAN KESEDIAAN SEBAGAI PEMBIMBING

BERSEDIA/TIDAK BERSEDIA   BERSEDIA/TIDAK BERSEDIA
Pembimbing I   Pembimbing II

Dr. Fitriadi Lubis, M. Pd   Firi Rayani Siregar, M. Hum
NIP. 19620917 199203 1 002   NIP. 19820731 200912 2 004

KEMENTERIAN AGAMA REPUBLIK INDONESIA
INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUAN
FAKULTAS TARBIYAH DAN ILMU KEGURUAN
Jalan T. Rizal Nurdin Km. 4.5 Sihitang 22733
Telepon (0634) 22080 Faximile (0634) 24022

Nomor : B - 056   /In.14/E.1/TL.00/09/2020
Hal   : Izin Pra Riset Skripsi.

4 September 2020

Yth. Kepala MTsS Al-Ansor Padangsidimpuan
Kota Padangsidimpuan

Dengan hormat, bersama ini kami sampaikan bahwa :

Nama   : Mardiana Siregar
NIM   : 1620300054
Program Studi   : Tadris/Pendidikan Bahasa Inggris
Fakultas   : Tarbiyah dan Ilmu Keguruan

adalah Mahasiswa Fakultas Tarbiyah dan Ilmu Keguruan IAIN Padangsidimpuan yang sedang menyelesaikan Skripsi dengan Judul "The Correlation Between Vocabulary and **Writing Descriptive Text Mastery at the Grade VIII Students of MTsS Al-Ansor Padangsidimpuan in The Academic Years 2019/2020".**

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

Demikian disampaikan, atas kerja sama yang baik diucapkan terimakasih.

a.n Dekan
Wakil Dekan Bidang Akademik

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

YAYASAN PONDOK PESANTREN AL-ANSOR
MADRASAH TSANAWIYAH SWASTA AL-ANSOR
Jl. H. Tengku Rizal Nurdin, Km. 8 No. 3 Desa Manunggang Julu, Kecamatan Padangsidimpuan Tenggara Kota Padangsidimpuan
Provinsi Sumatera Utara Telp. (0634) 24273, NPSN : 10264612, NSM : 121212770008, Email : mtsalansor@gmail.com

Nomor : 084 /MTs.A/10/2020
Lamp : -
Hal : **Surat Keterangan Selesai Riset**

Padangsidimpuan,　　Oktober 2020

Kepada Yth:
Bapak Dekan Fakultas Tarbiyah dan Ilmu Keguruan
IAIN Padangsidimpuan
Di
　　　Tempat

Dengan Hormat,

Berdasarkan surat Dekan Fakltas Tarbiyah dan Ilmu Keguruan IAIN Padangsidimpuan Nomor: B-/028/In.14/E.1/TL.00/09/2020 Tanggal 28 September 2020, tentang Mohon Izin Penelitian Penyelesaian Skripsi mahasiswa IAIN Padangsidimpuan di Madrasah Tsanawiyah Al-Ansor, atas nama:

N a m a 　　　　　　: Mardiana Siregar
NIM 　　　　　　　: 1620300054
Program Studi 　　　: Tadris/Pendidikan Bahasa Inggris
Fakultas 　　　　　 : Tarbiyah dan Ilmu Keguruan
Judul Penelitian 　　 : **"The Correlative Between Vocabulary and Writing Descriptive Text Mastersy at th Grade VIII Students of MTsS Al-Ansor Padangsidimpuan in The Academic Years 2019/2020"**

Dengan ini kami sampaikan bahwa nama yang tersebut diatas benar telah melakukan penelitian di Madrasah Tsanawiyah Al-Ansor.

Demikian surat keterangan ini kami sampaikan untuk dapat dipergunakan seperlunya.

Kepala

AMMA JAHRONA PASARIBU, S.Sos