



**THE CORRELATION BETWEEN VOCABULARY  
MASTERY AND READING COMPREHENSION  
OF THE TENTH GRADE STUDENTS OF  
SMK NEGERI 1 BATANG IN ACADEMIC YEAR  
2010/2011**

a final project  
submitted in partial fulfillment of the requirements  
for the degree of *Sarjana Pendidikan*  
in English

by  
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PERPUSTAKAAN  
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### **THE CORRELATION BETWEEN VOCABULARY MASTERY AND READING COMPREHENSION**

A Correlational Study of the Year Ten Students of SMKN 1 Batang  
in the Academic Year of 2010/2011

saya tulis dalam rangka memenuhi salah satu syarat untuk memperoleh gelar sarjana. Ini benar-benar merupakan karya saya sendiri yang saya hasilkan setelah melalui penelitian, pembimbingan, diskusi, pemaparan atau ujian. Semua kutipan baik yang langsung maupun sumber lainnya telah disertai keterangan mengenai identitas sumbernya dengan cara sebagaimana yang lazim dalam penulisan karya ilmiah. Dengan demikian, walaupun tim penguji dan pembimbing penulisan skripsi atau tugas akhir atau final project ini membubuhkan tanda tangan sebagai tanda keabsahannya, seluruh isi karya ilmiah ini tetap menjadi tanggung jawab sendiri. Jika kemudian ditemukan pelanggaran terhadap konvensi tata tulis ilmiah yang berlaku, saya bersedia menerima akibatnya.

Demikian, harap pernyataan ini digunakan seperlunya.

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## MOTTO AND DEDICATION

*A journey of a thousand miles begins with a single step.*

*(Lao-tzu)*



*To my great parents, Hadi Purnomo,  
and Sri Umiyati; my beloved siblings,  
Aditya Mahardika; my love, Rina  
Anggraini Prih Hastuti; and also my  
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## ABSTRACT

**Pradana, Hendry Setia.** 2011. *The Correlation Between Vocabulary Mastery and Reading Comprehension of the Tenth Grade Students of SMK Negeri 1 Batang in Academic Year 2010/2011.* Final Project, English Department. Faculty of Languages and Arts, Semarang State University. First Advisor: Prof.Dr. Mursid Saleh, M.A., Second Advisor: Triyoga Dharma Utami, S.Pd., M.Hum.

**Key words:** correlation, vocabulary mastery, reading comprehension.

This final project is about the correlation between vocabulary mastery and reading comprehension of the tenth grade students of SMK Negeri 1 Batang in Academic Year 2010/2011. The objectives of this study are to find out the students' vocabulary mastery of the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011, to find out the students' reading comprehension of the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011, and to find out whether or not there is a significant correlation between students' vocabulary mastery and their reading comprehension.

The object of this study was the year ten students of SMK Negeri 1 Batang. The researcher took class X-AK 2 as the sample class. In order to achieve the objectives, the researcher used a correlation quantitative to collect the data because the data stated in numeral form, and the data will be analyzed and finally it will be computed by using Pearson's Product Moment Formula. The writer used test as his instrument. The writer chose the test to get and collect the data. The purpose of test was to get the quantitative data, which was in the form of the test score. There was only one meeting to get the data. That meeting was used to give the test. There were two kinds of tests; the first test is vocabulary test and the second is the test of reading comprehension.

The result showed that there was 86.66% of the sample group mastering the vocabulary. It meant that value of vocabulary mastery is 65, so category of the students' mean value of vocabulary mastery's score is fair, because it is between 65-74. While in reading comprehension test there was 86.66% of the sample group reading comprehension. And the result means value of reading comprehension's test is 70, 17, so category of the students' mean value of reading comprehension's score is fair, because it is between 65-74. And from the calculation of hypothesis test, the t-value had been 0,910 and t-table had been 0,361. It meant that t-value had been higher than t-table. Thus, there had been significant correlation between vocabulary mastery and reading comprehension from the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011.

To get a good achievement in reading comprehension, the students have to master vocabulary very well. Because vocabulary lesson is not explicitly specified in the curriculum, the teachers have a duty to help their students in improving their vocabulary in teaching English based on their class vocation.



## TABLE OF CONTENTS

	Page
<b>ACKNOWLEDGEMENT .....</b>	v
<b>ABSTRACT .....</b>	vi
<b>TABLE OF CONTENTS .....</b>	vii
<b>LIST OF FIGURES .....</b>	x
<b>LIST OF TABLES .....</b>	xi
<b>LIST OF APPENDICES .....</b>	xii
 <b>CHAPTER</b>	
<b>I      INTRODUCTION .....</b>	1
1.1      Background of the Study .....	1
1.2      Reasons for Choosing the Topic .....	3
1.3      Research Questions .....	4
1.4      Objectives of the Study .....	4
1.5      Significance of the Study .....	4
1.6      Definition of Key Term .....	5
1.7      Outline of the Report .....	6
 <b>II      REVIEW OF RELATED LITERATURE .....</b>	7
2.1      Vocabulary as One of the Language Components .....	7
2.1.1      Definition of Vocabulary .....	7
2.1.2      Introduction of Vocabulary .....	8
2.1.3      Teaching of Vocabulary .....	9

2.1.3.1	Principle in Teaching Vocabulary.....	12
2.1.3.2	Aspect of Vocabulary Teaching.....	14
2.1.4	Scoring of Vocabulary.....	16
2.2	Mastery of Vocabulary.....	16
2.3	Reading as One of the Language Skills.....	18
2.3.1	Definition of Reading Comprehension.....	19
2.3.2	Introduction of Reading Comprehension.....	21
2.3.3	Reading Process.....	22
2.3.4	Principles of Teaching Reading.....	25
2.3.5	Scoring of Reading Comprehension.....	27
2.4	Benefits of Mastering Vocabulary and Reading Comprehension.....	28
<b>III</b>	<b>METHOD OF INVESTIGATION.....</b>	<b>30</b>
3.1	Research Design.....	30
3.2	Population.....	31
3.3.	Sample.....	32
3.4	Variable.....	32
3.5	Instrument of the Study.....	33
3.5.1	Construction of the Test.....	33
3.5.2	Scoring Test Items.....	34
3.5.2.1	Validity of the Test.....	35
3.5.2.2	Reliability.....	38
3.5.2.3	Level of Difficulty.....	40
3.5.2.4	Discriminating Power of an Item.....	42
3.6.	Procedure of Collecting Data.....	45
3.7	Technique of Data Analysis.....	46



<b>IV</b>	<b>RESULT OF STUDY .....</b>	<b>50</b>
4.1	Students Vocabulary Mastery .....	50
4.2	Students Reading Comprehension .....	55
4.3	Correlation between Vocabulary Mastery and Reading Comprehension Test .....	59
4.4	Discussion.....	63
<b>V</b>	<b>CONCLUSION AND SUGGESTION .....</b>	<b>65</b>
5.1	Conclusions.....	65
5.2	Suggestions .....	66
	<b>BIBLIOGRAPHY .....</b>	<b>68</b>
	<b>APPENDICES.....</b>	<b>70</b>

LIST OF FIGURES

Figure	Page
Figure 2.1 Factors of Reading Comprehension .....	22



## LIST OF TABLES

Table	Page
Table 2.1 Levels Scoring of Vocabulary Mastery .....	16
Table 2.2 Levels Scoring of Reading Comprehension .....	28
Table 3.1 The Population of the Research.....	31
Table 3.2 The Index of Discriminating Power of the Items .....	45
Table 4.1 The Percentage of Studentø Vocabulary Mastery .....	51
Table 4.2 Categories of the score of the studentsø Vocabulary Mastery .....	52
Table 4.3 The percentage of the score of the studentsø Vocabulary Mastery .....	53
Table 4.4 The Percentage of Studentø Reading Comprehension .....	55
Table 4.5 Categories of the score of the studentsø Reading Comprehension. ....	56
Table 4.6 The percentage of the score of the studentsø Reading Comprehension .....	57
Table 4.7 Helping Value for Correlation.....	59
Table 4.8 Critical Values of the Pearson Product-Moment Correlation Coefficient .....	62
Table 4.9 Correlation Coefficient .....	62

## LIST OF APPENDICES

### Appendix

Appendix 1: Lesson Plan .....	70
Appendix 2: Students Name of the Sample Group.....	73
Appendix 3: Helping Table for Reliability of Vocabulary Mastery.....	75
Appendix 4: Helping Table for Reliability of Reading Comprehension. ...	77
Appendix 5: Instrument of the Vocabulary Test. ....	79
Appendix 6: Instrument of the Reading Comprehension Test. ....	83
Appendix 7: Tabulation of Vocabulary Mastery Data.....	87
Appendix 8: Tabulation of Reading Comprehension Data. ....	88
Appendix 9: Letters.....	89

## CHAPTER I

### INRODUCTION

This chapter presents the background of the study, reasons for choosing the topic, research questions, and the objective of the study. Besides, it also presents the significance of the study, definitions of the key terms, and outline of the report.

#### 1.1 Background of the Study

Nowadays, English as an international language becomes very important. It means that English is used as a communication language by people in several countries. They use English as their language when they do communication with others who are not from the same country to communicate in their life. In Indonesia, English has already been taught in elementary school, junior high school and senior high school. This fact shows that English is important one in education as a subject to be taught to Indonesian students.

Teaching English as a foreign language has its own challenge. A teacher uses methods to make their English lesson more interested. This way will give motivation to the students in learning English. Realizing the unsatisfactory result of English teaching, the government has done a lot of things to improve it. However, there is not only one factor affecting the teaching result. Ramelan (1992:4) says òfactors like the students, teachers, time allotment, the use of visual aids, and methodology together in affecting the final result of teaching.....ö It

means that there are many factors in affecting the result of teaching. It would be very ideal if all the factors could meet the necessary requirements; for instance, the teachers are competent, the students well motivated and brightly minded, the teaching material well arranged and etc. This situation must be fulfilled to reach the ideal result of teaching.

Mastering a language means practicing the four skills of English very well. For example; someone wants to explain how and why the rain happens. The problem is how she gets the knowledge, or how she attains the understanding. The answer is, of course, through reading and listening.

Reading is very important for teacher to establish reading skills for their students. Many specialists defined reading as the process of putting the reader in contact and communication with ideas. Reading is simply one of the many ways in which human beings go about their basic business of making sense of the world (Eskey, 1986).

So, the students will have spirit when they study English because as a foreign language, English subject is not easy to be learned. It is caused by the difference of mother tongue.

Based on some findings on SMK Negeri 1 Batang when the writer did PPL for 3 months, the biggest problem in English learning is vocabulary. It is showed by the result of the student's daily scores. There, the teachers ask the students to write some vocabularies which are given on the student's notebook. The teachers give a post tests to the students about vocabulary before they start the lesson.

Improving technology caused English is not only as subject of education. In some cities in Indonesia, English becomes communication language in teaching learning process. It becomes new problem to students. They must enrich their



vocabulary to ask their teacher when they haven't understood the subject yet. In learning English, the students will find some new vocabularies. Vocabulary is the most important thing which may have correlation with other subjects.

From the explanation above it can be concluded that English vocabularies are important to be studied because it has correlation with reading comprehension as one of other English skills. So, the writer wants to know the correlation between vocabulary mastery and reading comprehension.

## **1.2 Reasons for Choosing Topic**

The topic of this thesis primarily deals with the correlation between vocabulary mastery and reading comprehension of the students of the tenth grade of SMK Negeri 1 Batang in academic year 2010/2011.

The reasons for choosing the topic can be stated as follows:

- a. Vocabulary is very important to be researched because it is the foundation of learning English; without knowing and learning English vocabularies the learners cannot use the language.
- b. Reading is one of the most important skills especially for Indonesian students because reading comprehension is a bridge to understand scientific books written in English.
- c. To know whether there is a correlation between vocabulary mastery and reading comprehension or not.

### 1.3 Research Questions

The research problem can be stated as follows:

- a. To what extent do the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011 master vocabularies?
- b. To what extent do the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011 comprehend reading texts?
- c. Is there any significant correlation between vocabulary mastery and their reading comprehension?

### 1.4 Objectives of the Study

The objectives of this study can be stated as follows:

- a. To figure out the vocabulary mastery of the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011.
- b. To figure out the reading comprehension of the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011.
- c. To figure out whether or not there is a significant correlation between students' vocabulary mastery and their reading comprehension.

### 1.5 Significance of the Study

The result of the study is expected to give the following benefits:

- a. For teachers, English teachers can use the result of the study as a feedback on teaching reading activities so that the objectives of the English teaching program can be achieved.

- b. For students, they can take some information to identify their problems in vocabulary mastery and reading comprehension. Furthermore, they can also increase their ability in vocabulary mastery and reading comprehension.
- c. For readers, they are expected by reading the final project the reader will have no find any difficulties in understanding the vocabulary mastery and reading comprehension.
- d. For the writer, by doing the research, the writer hopes that he can study and get more information to identify the problem in vocabulary mastery and reading comprehension.

## 1.6 Definition of Key Terms

With reference to the title of this thesis, there are terms that need to be defined in order to avoid various interpretations as follows:

### 1. Correlation

Correlation means relationship, and study is similar to research correlation.

The relationship between two variables in this research, the vocabulary mastery and reading comprehension.

2. Vocabulary mastery is student's ability to use or to understand words of language that they have learned in certain situations which they really have experienced in their lives.

3. Reading comprehension is student's ability in understanding the message of the reading material.

4. Tenth grade students of SMK Negeri 1 Batang, it consists of 270 students, divided in 9 vocational classes, with the age average of each students is 16 years old.

## 1.7 Outline of the Report

The study is divided into five chapters. The first chapter is introduction about the study which introduces the study. It will discuss the background of the study, reasons for choosing the topic, research questions, objectives of the study, significance of the study, definitions of the key terms and outline of the report.

The second chapter presents a review of the related literature. The review of literature that contains some theories about this study. There are: vocabulary as one of the language components, mastery of vocabulary, reading as one of the language skills, benefits of vocabulary mastery and reading comprehension.

The third chapter is about methodology of the research. It discussed of the research design, variable, source of data, choice of population and sample, instrument, procedure of collecting data item analysis and method of analysis.

The fourth chapter explains the result of the students' vocabulary mastery, students' reading comprehension, correlation between the students' vocabulary mastery, and students' reading comprehension, discussion and research finding.

The fifth chapter explains the conclusion of investigation together with the suggestion for improving vocabulary mastery and reading comprehension.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

This chapter presents some theories underlying the topic of this study. Those theories relate to the vocabulary as one of the language components, the mastery of vocabulary, reading as one of the language skill and the benefits of vocabulary mastery and reading comprehension.

#### 2.1 Vocabulary as One of the Language Components

Language has vocabularies. It is made of a great number of words; each of this is independently meaningful. There are several definitions about what vocabulary is.

##### 2.1.1 Definition of Vocabulary

There are several definitions of vocabulary:

- According to Longman (1992: 1467)
  - öa list of words, usually in alphabetical order and with explanation of their meaning, less complete than a dictionary and also a list of words that used by individual or in a group, having a culture meaning and it is in the active from used by a person to encode his idea.ö
- According to Hornby (1995: 1331) öa list of words with their meaning, especially are that accompanies a text book in a fright language.ö

From the definition above, the writer gets conclusion that vocabulary is a list or a series of words with their meaning and it is used to express the idea or it is used for general communication.

### **2.1.2 Introduction of Vocabulary**

According to Sitters (1991: 3) there are 3 important things related to the introduction of shaping the vocabulary are as follows:

a. The role of dictionary

Learning language can not be separated from dictionary because the dictionary can give the explanation of words if students do not know about the meaning. It means that, in learning English students must have a good dictionary or at least two dictionaries; those are an advanced dictionary and a pocket one. The advanced one is better because it is more complete than the pocket one. The pocket dictionary usually only gives short definition and less explanation.

b. The students' memory

Saving vocabulary in a small notebook is an effective way to control the students' memory in remembering new vocabularies. It will be easy to be brought everywhere. It is very simple for the students can write the vocabularies that they hear and open it again whenever they need. Besides the notebook, the students can use flash cards. They can write the foreign word on one side and the definition on another side of the card. It means that whenever they have spare time they can check or see the card and measure how many words they have remembered.



c. Educated guessing

In fact, Students will meet some difficult words, especially on reading comprehension. They find some words that they only know its meaning from the context or statement. They just guess even though sometimes they do not know the exact meaning or definition of these words. It means that the students may not always finding the meaning of the dictionary every time they find the foreign words because by knowing the context they can finds the meaning of those foreign words.

The writer concluded that vocabulary is the important thing beside many factors in learning English. With mastering vocabulary, it is possible to master English well. The more students get the vocabulary, the easier to increase their English skills.

### 2.1.3 Teaching of Vocabulary

Some people believe that the teaching of vocabulary is a waste of time since vocabulary is an unlimited number. Specialist in methodology fear that students will make a lot of mistakes in sentence construction if too many words are learned before the basic grammar had been mastered. öConsequently, teachers are led to believe it is not to teach vocabulary much. Besides they think that word meanings can be learned through experience, without attending vocabulary classes the students will master a number of words when they become familiar with the situation where the words frequently occur.ö (Allen, 1983: 12)

Solange Moras shared in one article that available at Karen's linguistic issues in July 2001 about teaching vocabulary to advanced students:

1. The teaching of vocabulary

Traditionally, the teaching of vocabulary above elementary levels was mostly incidental, limited to presenting new items as they appeared in reading or sometimes listening texts. It means that the indirect teaching of vocabulary assumes that vocabulary expansion will happen through the practice of other language skills, which has been proved not enough to ensure vocabulary expansion.

Nowadays it is widely accepted that vocabulary teaching should be part of the syllabus, and taught in a well-planned and regular basis. Some authors, led by Lewis (1993) argues that vocabulary should be at the centre of language teaching, because language consists of grammaticalized lexis, not lexicalized grammar.

2. Memory and storage systems

Understanding how our memory works might help us create more effective ways to teach vocabulary. Research in the area, cited by Gairns (1986:31) offers us some insights into this process.

It seems that learning new items involve storing them first in our short-term memory, and afterwards in long-term memory. We do not control this process consciously but there seems to be some important clues to consider. First, retention in short-term memory is not effective if the number of chunks of information exceeds seven. Therefore, this suggests that in a given class we

should not aim at teaching more than this number. However, our long-term memory can hold any amount of information.

The techniques previously mentioned can be used to greater advantage if we can diagnose learning style preferences (visual, aural, kinesthetic, and tactile) and make students aware of different memory strategies.

Meaningful tasks however seem to offer the best answer to vocabulary learning, as they rely on students' experiences and reality to facilitate learning. More meaningful tasks also require learners to analyze and process language more deeply, which should help them retain information in long-term memory.

Forgetting seems to be an inevitable process, unless learners regularly use items they have learnt. Therefore, recycling is vital, and ideally it should happen one or two days after the initial input. After that, weekly or monthly tests can check on previously taught items.

The way students store the items learned can also contribute to their success or failure in retrieving them when needed. Most learners simply list the items learnt in chronological order, indicating meaning with translation. This system is far from helpful, as items are de-contextualized, encouraging students to over generalize usage of them. It does not allow for additions and refinements nor indicates pronunciation.

Teachers can encourage learners to use other methods, using topics and categories to organize a notebook, binder or index cards. Meaning should be stored using English as much as possible, and also giving indication for pronunciation. Diagrams and word trees can also be used within this

topic/categories organization. The class as a whole can keep a vocabulary box with cards, which can be used for revision/recycling regularly.

Organizing this kind of storage system is time-consuming and might not appeal to every learner. Therefore adapting their chronological lists to include headings for topics and a more complete definition of meaning would already be a step forward.

### 3. Choice of material

As both of the Task-based and the Lexical approach suggest, we wanted to use authentic material to expose our students to rich, contextualized, naturally-occurring language.

We did not want to overload students with much reading, which would detract them from the main task of working with vocabulary, and therefore we selected twenty-one short yet meaningful extracts in which common collocations appeared.

If students are really interested in the task, this could be transformed into a project, involving research and the production of a leaflet or web page in the multi-media centre.

#### 2.1.3.1 Principles in Vocabulary Teaching

To master vocabulary, the teacher follows the principles in teaching vocabulary. According to Michael J. Wallace (1989:30) as follows:

##### a. Aims

The aims have to be clear for the teacher: How many of the things listed

Does the teacher expect the learner to be able to achieve the vocabulary?

What kinds of words? (Wallace, 1989:27)

b. Quantity

öThe teacher may have to decide on the number of vocabulary items to be learned.ö(Wallace, 1989:28)

It means that how many new words in a lesson can the learner learn? If there are too many words, the learner may become confused and discouraged.

c. Need

In any case, one would hope that the choice of vocabulary will relate to the aims of a course and the objectives of individual lesson. It is also possible for the teacher, in a sense, to put the responsibility or choosing the vocabulary to be taught on the students, in other word, the students are put in a situation where they have to communicate and get the words they need, as they need them, using the teacher as an informant.

d. Frequent Exposure and Repetition

It is seldom, however, that we remember a new word simply by hearing at the first time (Wallace, 1989:29). There has to be a certain amount of repetition until there is evidence that students have learned the target word.

e. Meaningful Presentation

The learner must have a clear and specific understanding of what it denotes or refers to, i.e. It means that although meaning involves many other things as well ( Wallace, 1989:29). The word is presented in such a way that its denotation or reference is perfectly clear and ambiguous.



f. Situation of Presentation

The choice of words can be very varied according to the situation in which we are speaking and according to how well we know the person, to whom we are speaking (from informal to formal), (Wallace, 1989:30). So that a student should learn words in the situation in which they are appropriate.

The writer concluded that aim of language teaching is the students are able to listen carefully, to speak clearly, to read well and to write skillfully. Thus, the qualities of one's language competence depend on the quality and quantity of vocabulary that she or he has.

### 2.1.3.2 Aspect of Vocabulary Teaching

Collier-Macmillan (1988: VII) argues that many of the words have more than one meaning. Since this kind of ambiguity is one of the great difficulties in English vocabulary, she can see the reason to disguise the feature of the language by specifying one on the other usage of the word in the list.

In the teaching vocabulary, the teacher has to explain clearly to the students on how to know the meaning of words in content words: it is based on many aspects.

The principles of modifications are made:

- a. Function words were eliminated.
- b. Sets of common items have been filed out, where or not all words satisfied statistical requirements.
- c. New items have been added and old fashioned or inappropriate one delayed.



- d. It was assumed that students would recognize and understand words regularly formed from base words on the list. A so many words in earlier list could be eliminated being automatically covered
- e. Numerals, days of the week, and month of the year have to be eliminated from the word list.

Students' memory is very important. They can write down words whenever they hear or see the new vocabulary by dividing them according to letters of the alphabet on their own dictionary. The easiest way to learn vocabulary is by dividing into families, groups and sets.

According to Haycraft (1983: 18), there are many steps that can be given to students in improving their vocabulary;

- a. Write the word and its definition often just for practice.
- b. Say the word and learn to pronounce it correctly by using the pronunciation clues in the dictionary.
- c. Try to learn the word and its meaning the first time you see it.
- d. Use the index card to study vocabulary. Write the word on one side and its definition in other side.
- e. Make up a sentence you understand using the word.
- f. To change the ending of the word, try to make it plural, try to change the tense, and try to improve.
- g. Use the word when you talk in the class, on the job or at home. Make sure you can pronounce the word correctly.
- h. Use the word whenever you can in your writing assignments.

- i. Say the word and its meaning over and over again in your mind.
- j. Do not lean long lists of new words each day for several days so that you can learn by repeating.

#### 2.1.4 Scoring of Vocabulary

The writer used the scoring of vocabulary by Douglas Brown (2004: 289-294). He categorized levels of scoring of vocabulary mastery into four classifications levels scores:

**Table 2.1 Levels Scoring of Vocabulary Mastery**

Score	Category
8-9	High
6-7	Satisfactory
4-5	Low
0-3	Fail

(Douglas Brown (2004: 289-294)

## 2.2 Mastery of Vocabulary

Rebecca M. Vallette as cited by Sukirah Kustaryo (1988:3) says that the ability to understand the target language greatly on one's knowledge of vocabulary. The students usually have a certain motivation to master certain vocabulary, usually for his need.

The mastery of language according to Charles Fries (2000:18) is the ability to use or to understand all the words of the language. Fries also argues that the mastery of vocabulary of a foreign language is also bound by our actual experience. Finally, he concluded from the previous information and interpretation about the vocabulary mastery can be developed naturally following his growth of experience and progress in education. The teacher can only stimulate the learners, progress by giving the suitable material and guidance.

According to David Corson (1995: 31) there are two kinds of vocabulary mastery. One may have receptive or passive vocabulary and productive or active vocabulary.

Active vocabulary refers to the words in which the students can understand and pronounce the words correctly and use them constructing in speaking writing.

According to David Corson (1995: 31):

“An active vocabulary covers all those words people need to use and have no reservations about using to communicate with others on an everyday basis. The range of people's active vocabulary is a unique reflection of their sociocultural position and the range of discursive practices engaged in.”

According to Ingo Plag (2003: 134):

“The active vocabulary obviously consists of words that we know 'better' than those that constitute our passive vocabulary. Another instance of graded knowledge of words is the fact that, even as native speakers, we often only know that we have heard or read certain word before, but do not know what it means.”

According to Microsoft Encarta Dictionary, the range of words that somebody normally uses in speech or writing, as opposed to words he or she understands when used by others.

Passive Vocabulary refers to the words in which the students can recognize and understand while they are reading or listening to someone speaking but they do not use the words in speaking or writing.

According to David Corson (1995: 31)

öA passive vocabulary: Includes the words stored in verbal memory that people partially 'understand,' but not well enough for active use. These are words that people meet less often and they may be low frequency words in the language as a whole.ö In other words, activating those takes longer and it demands greater stimulus than most textual contexts provide.

This research deals with vocabulary mastery, thus it deals with the ability to know the meanings of certain vocabulary items and their usage in certain context to express ideas, opinion, and feelings in communication. Vocabulary mastery is people's ability to use or to understand words of language that they have learned in certain situations which they really have experienced in their lives.

### **2.3 Reading as One of the Language Skills**

Reading is one important skill in learning a language. It is also a means of recreation and enjoyment. At the same time it enlarges knowledge and improves the technological achievement. In order to develop reading skill it is necessary to read many kinds of reading materials. Students should not only develop their reading skill through formal education and assignment in various school textbook, but they also should read fiction, free reading books, newspapers and magazines.

Although people read many kinds of reading materials and have interest in reading, actually they do similar things. They try to catch the meaning or the idea of the text. It means that they do not only interact with the written symbol, but they also use the knowledge to catch the meaning.

The goal of reading for Indonesian students is to understand or comprehend the material of the test because reading comprehension is a bridge to understand scientific books they read. The ability of the students in reading is very important because by having the ability to read, they will be able to improving their knowledge.

### **2.3.1 Definition of Reading Comprehension**

Clark and Sandra (1998) define reading as an active cognitive process of increasing with print and monitor comprehension to establish meaning.

Kennedy (1989:5) has an argument that reading can be defined as the ability of an individual to recognize a visual form; associate the form with a sound and or meaning acquired in the cover and on the part of experience, understands, and interprets its meaning.

Form the statement above, the writer conclude that reading is a process that is done and also is used by the readers to get the message that will be informed

How far is someone said to be successful in reading the written material? According to Recheck Lost and Learner (1983:7), in general, reading is the ability to gather meaning from printed symbol. For the beginning reading stage students



recognizing word and comprehending literal meaning are important components.

The reading level for the students is immediate; the definition of reading includes a deeper understanding of passages.

“In order to comprehend reading selection, a person must be able to use the information to make inferences and read critically to understand the figurative, determine the author’s purpose, evaluate the ideas presented, and apply the ideas to actual situations. All of these skills involve a thinking process.” (Burn, 1984: 10-11)

Goodman (1988) views reading from another point. He defines reading from the psycholinguistic perspective, and describes reading as a “Psycholinguistic guessing game”. He argues:

“Reading is a receptive language processes. It is a psycholinguistic process in that it starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader constructs (Goodman in Carrell et al. 1988:12)”

According to Kennedy (1991:12) in his explanation about comprehension,

“Comprehension is facilitated reading appropriate materials intellectual curiosity, and desire to learn. The definition of comprehension can be stated as follows: the ability of pupils to find, interpret, and use ideas comprehension”.

From the statements this research concluded that, in order to comprehend a reading selection fast a person must be able to use the information to make conclusion and to read critically, to understand the figurative, to determine the author’s purpose, to evaluate the ideas presented, and to apply the ideas to actual situations.



### 2.3.2 Introduction of Reading Comprehension

Reading is one of the important ways to improve general language skills in English.

a. According to Beatrice S. Mikuleckly and Linda Jeffries:

Reading helps you learn to think in English, by enlarging our vocabulary, improving our writing, and may be a good way to practice your English if you live in a non-English speaking country, also help us in preparing for studying in English speaking country

b. White (1987: 31) mentions three purposes of reading, they are:

Reading for factual information, reading for intellectual purposes, reading for emotional gratification or spiritual enlightenment.

By reading for factual information he means reading referential materials in order to obtain the right information with which people operate on given on a given environment. For example: Reading a set of instructions on how to use a piece of equipment.

Reading for intellectual purposes refers to reading an appropriate text to obtain cognitive information for augmenting or developing one's intellectual skills so that she/ he can more effectively manipulate ideas, possibly with the aims of influencing the behavior of others or of determining the outcome of a series of operations.

People may read affective materials like novels, poems, and the like just only for pleasure or self-improvement.

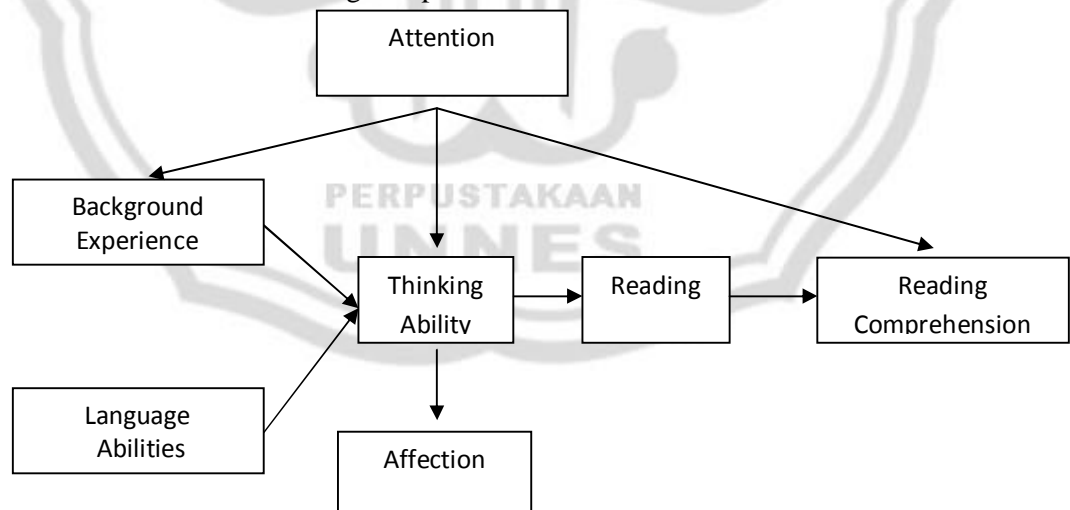
c. Wallace (1992) describes that reading has three main objectives, they are:

Reading for survival which is identical to reading for factual information, reading for learning which is similar to reading for intellectual purposes, reading for pleasure which is the same as reading for emotional gratification.

Wallace said that the different term used and different ways of describing the reasons for reading used by different experts, by and large nobody reads for any reason, is determined by the reader, not by somebody else.

### 2.3.3 Reading Process

In the process of reading, there are some factors which influence reading comprehension. A diagram drawn below is used to show how these factors influence reading comprehension. A diagram drawn below is used to show how these factors influence reading comprehension.



**Figure 2.1 Factors of Reading Comprehension**

(Harris, 1976:207)

From the diagram above, we notice that the factors which influence reading comprehension are;

a. Attention

Attention is an activity whereas the reader tries to pay attention on what the reader is reading.

b. Background Experience

Heilman argues that previous language experience is probably most important as it relates to the specific task called reading (Heilman, 1988: 50).

In the writer opinions, reading is actually the activity of relating something we don't know to something we have already known. Therefore, the previous experience of the reader is very important in anticipating the author's message.

This idea is confirmed by Harris (1976) who says that the ability to reconstruct meaning from printed page, including various kinds of skills and style the writer has, is based on the reader's previous experience with a topic, his familiarity with key concepts and his knowledge of how language works. So, good readers must have the ability to relate the text to their own background knowledge efficiently.

Take for example, a child who often experiences to go to the zoo and observes the animals there will have better comprehension when they come to reading a passage about zoo compared to those who have never done such a thing. Comprehension, then is personal. The achievement won't be the same for all the students although they are taught in the same class, by the same teacher, using the same material and techniques.

c. Language Abilities

Reading and language are two things that cannot be separated because reading is one of the skills in learning a language. When the child learns to read, at the same time he learns a language. If his knowledge about the language is good, it is assumed that his in reading will be good too. It includes the ability to understand the structure underlying the passage and vocabulary of the language he learns.

d. Thinking Abilities

Thinking ability refers to the students' ability to link their new experience with their previous experience. Burn: reading is a thinking process (Burn, 1984: 10). Readers should think in the act of recognizing word. Teachers in class can develop the students' ability in thinking by giving them appropriate questions to comprehend. The question should be good enough so that the students are not asked to quote parts of the passage only but they must be concerned with the main ideas and understand the purpose of the author.

e. Reading purposes

Grellet (1985) mentions two main purposes for reading comprehension are: Reading for pleasure, reading for information (in order to find out something or in order to do something with the information obtained).

It is important to judge the purpose of reading because it will influence us in choosing the technique. Kustaryo, in his book, reading technique for college students, says reading technique play an important role in understanding reading materials (Kustaryo, 1988: 3)

### 2.3.4 Principles of Teaching Reading

According the principles for teaching of reading, William (1986) makes a very good list called "Top Ten Principles for Teaching Reading". The principles are:

- a. In the absence of interesting texts, little is possible.

It is true that interesting text is important but it always happens that finding our interesting texts for all students and preferably also for teacher is very difficult. It is the teacher's task to use any aspect of the text to arouse the student's interest.

- b. The primary activity of a reading lesson should be learners reading texts.

This principle is very important to remind teacher who often interrupts the student's reading activity and mixes it with others.

- c. Growth in language ability as an essential part of the development of reading ability.

It means that knowledge of language is necessary in learning reading. Otherwise, the students will not develop. In fact, the development of reading abilities and that of language knowledge are interdependent.

- d. Classroom procedures should reflect the purposeful, task-based, interactive nature of real reading.

Teaching reading should encourage students to have a purpose when reading a text and make a dialogue with the writer through the text in order to achieve their purpose. Students should become active and positive readers.

- e. Teachers must learn to be quiet: all too often, teachers interfere with and so impede their learners' reading development by being dominant and by talking too much.

This principle reminds the teachers who dominate the reading lesson by talking about the text to the students instead of asking them to read it.

- f. Exercise types should, as far as possible, approximate to cognitive reality.

The main point here is the teacher should identify how an efficient reader uses different skills for different purposes of reading, then she/ he makes the students aware of and develop their reading skills.

- g. A learner will not become a proficient reader simply by attending a reading Course or working through a reading textbook.

The time available for reading in the classroom is very limited and not enough for developing students' reading skills. Therefore, extensive must be encouraged.

- h. A reader contributes meaning to a text

Students have to be trained to use their relevant background knowledge efficiently when reading a text so that they do not only rely on the printed stimuli.

- i. Progress in reading requires learners to use their ears, as their eyes.

This principle encourages the teacher to ask the students to manipulate the "Silent Supra-Segmental" in the text in order to understand the text better. Therefore while the students are reading silently, it might be useful for them to listen to their teacher reading aloud or to the tape.

- j. Using a text does not necessarily equal teaching reading.



This principle reminds the teacher that a text can be used for many purposes, e.g. for teaching grammar or vocabulary. Hence the text is not used for teaching reading. The teacher must be aware of this and know the difference between using a text for teaching reading and using a text for other purpose.

The writer said that to know the principle of teaching language is very important, so the teachers must be to remind and to use it in process learning English.

### 2.3.5 Scoring of Reading Comprehension

The writer used the scoring of reading comprehension by Douglas Brown (2004: 289-294). He categorized levels of scoring of reading comprehension achievement into four categories level scores:

**Table 2.2 Levels Scoring of Reading Comprehension**

Score	Category
8-9	High
6-7	Satisfactory
4-5	Low
0-3	Fail

Douglas Brown (2004: 289-294)

## 2.4 Benefits of Mastering Vocabulary and Reading Comprehension

The acquisition of word meanings is very important to comprehend in reading. In order to be successful in comprehend either spoken or written comprehension; students should acquire precise and rich word meanings. So, they can do the effective reading. Bond (1988: 1) states that comprehension of sentences and paragraph naturally requires an understanding the words.

It is a benefit for English learners in mastering vocabulary and reading comprehension. With their vocabulary mastery and reading comprehension, learners will be able to catch the message of the text they read. They also can understand scientific books written in English to get information and advancement because reading comprehension is a bridge to understanding scientific books written in English either obtain information and advancement or to enjoy them or just for relaxation.

Generally many learners face some difficulties in reading comprehension due to their lack of vocabulary. Most of the students face difficulties when they have to understand a paragraph. It is not easy to present the English reading to the students whose language system is different. They sometimes cannot understand the meaning of some words and this can often confused in understanding the meanings as a whole. In summary, the lack of mastery of vocabulary can cause some problems in understanding a language. Their limited vocabulary also makes them unable to express their ideas freely.

From the above explanation it comes to the hypothesis that there is a positive correlation between students' mastery of vocabulary and their ability in reading comprehension.



## CHAPTER III

### METHOD OF INVESTIGATION

Method of investigation is a significant and important part of all scientific activities. It controlled investigation of the theoretical and applied aspects of mathematics, statistics measurement, and ways of obtaining and analyzing data. (Kerlinger, 1979: 308)

This chapter includes the discussion of research design, source of data, variable, choice of population, instrument, construction of the test, scoring technique, administration of the test, procedure of collecting data and method of analysis.

#### 3.1 Research Design

Research design is a plan or program made by a researcher, as the activity target that will be done (Suharsimi, 2002: 45). Research method refers to the overall strategy in collecting and analyzing data: this is referred to as the design of the research in what way the data will be analyzed and collected. In this research, the research uses a correlation quantitative to collect the data because the data stated in numeral form, and will be analyzed and finally drawing a conclusion.

Donald Ary (1985:327) says that: "Correlation studies are concerned with determining the extent of relationship between variables. They enable one to measure the extent to which variations in one variable are associated with

variations in determined through the use of the coefficient of correlation. In this case, the writer wants to correlate between students' mastery in vocabulary and their reading comprehension.

### 3.2 Population

According to Brown (1988:144), population is a group that is interested in a study. From this definition, the objects are investigated, analyzed, concluded to represent the whole population. The population of this research is the tenth grade students of SMK N 1 Batang in academic year 2010/2011. The total number of the students in the population is 270.

**Table 3.1 The Population of the Research**

Class	Number of students
AK 1	32
AK 2	30
AP 1	30
AP 2	30
PM 1	30
PM 2	30
TKJ	28
MM	30
PB	30
Total	= 270

Based on the table above, it stated that the total number of students in the tenth grade of SMK Negeri 1 Batang as the population is 270 students. It came from 9 classes and the average of each class is 30 students.

### 3.3 Sample

Sample is defined as a small proportion of population selected for observation and analysis (Best, 1981:8). It can be concluded that sample is a representation of population that will be used to gather data needed for this research.

In this case, I took one class as sample for my research that was class X AK 2. There were a number of students as sample from the group used in this research that was 30 students.

### 3.4 Variable

According to (Suharsimi, 2002:98):

“A variable is defined as something that varies from one case to another. The dependent variable is variable which one observes and measures to determine the effect of the independent variable. Independent variable (the major variable) is the variable which is selected manipulated and measured by the researcher.”

In this research there were two variables:

#### 1) Independent variable:

Independent variable is a variable that is presumed to influence another variable. In this research the independent variable is vocabulary mastery (X)



2) Dependent variable:

Dependent variable is a category that is influenced by another category or that is the consequent (Kerlinger, 1979:21). The dependent variable of this research is reading comprehension (Y).

### 3.5 Instrument of the Study

Research instrument is a device used by the researcher while collecting data to make their work become easier and to get better result, complete and systematic in order to make the data easy to process. There are some kinds of instruments which can be used by researcher in conducting the study. In this final project, I used test as my instrument.

According to Harris, there are two basic kinds of test used to measure the four language skills of students, i.e.: the objective test and the essay test (Harris, 1969:71). In this research, the study only used objective test in his investigation. It used objectives test, in this case, the multiple choice type for both the vocabulary and reading comprehension.

#### 3.5.1 Construction of the Test

The writer used vocabulary test type in his investigation. Test type which is used was based on the following considerations:

- a. Reading comprehension is related to the mastery of English vocabulary.
- b. Students' test papers can be easily and quickly scored.

- c. Since the correct answer was limited in number, objective test type will not make examiners have different interpretation as students' test papers.

### 3.5.2 Scoring Test Items

As the writer presented, he made forty items of test items. From the forty items, the writer divided into two parts, namely multiple choice test to measure students' vocabulary mastery and reading comprehension. The test is divided into two parts, first is vocabulary test and second is reading comprehension test. This test consists of 20 items of vocabulary test and 20 items of reading comprehension test. The writer gives 45 minutes to do each of the test types. So, the total times to do all of the tests are 90 minutes.

The writer chooses multiple choice items because multiple choice tests are arranged systematically. It covers a large number of the subject matter areas the teacher will measure. Scoring can be done quickly and involves no judgments to degree the correctness. And it also has greater readability than the others test types.

Scoring the item would be processed from the result of the students test. Each item is scored 1 for the right answer and 0 for the wrong answer. The writer analyzed the test items whether the test was valid and reliable or not, in the quantitative investigation we must consider the following matters.

### 3.5.2.1 Validity of the Test

Validity is a measurement which shows the grades of number of an instrument. A valid instrument must have high validity, it means that an instrument which lacks validity is said to be invalid instrument (Suharsimi, 2002:144).

And later suharsimi said that an instrument is called a valid one when it can measure something which is wanted by uncovering the variable studied exactly. The method used in measuring the validation of the instrument is called content validity. Suharsimi also said that a test or a measurement can be called a content test when it measures the special purpose which is equal with the material or content given.

The method used to measure the validity of the test is calculated with the formula of Pearson's product moment correlation. The formula is as follows:

$$r = \frac{n(\sum XY) - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

(Suharsimi, 2002:146)

Where:

$r$  = correlation coefficient if variables X and Y

$\sum XY$  = the sum of the product of multiplying the vocabulary and the reading comprehension test

$\sum X$  = the sum of the vocabulary test scores

$\sum Y$  = the sum of the answer question test scores

$(\Sigma Y)^2$  = the square of the sum of vocabulary test scores

N = the total number of the subjects

If  $r_{xy} > r$  table, it means that the test is valid with the significant degree 5%.

The validity computation consulted with the r-table of Product Moment, therefore the correlation could be known whether it is significant or not. If r-table value is less the value of critical table, the correlation is not significant.

#### 1) Item validity for vocabulary mastery

For example to calculate validity for vocabulary mastery, the writer used item number 2. From appendixes of table for validity, reliability, discriminating power, and difficulty item for vocabulary mastery showed that:

$$N = 30, \Sigma X = 25 \quad \Sigma Y = 390 \quad \Sigma XY = 351 \quad \Sigma Y^2 = 5506$$

$$(\Sigma Y)^2 = 152100$$

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

$$r_{xy} = \frac{30(351) - (25)(390)}{\sqrt{\{30(25) - (25)^2\}\{30(5506) - (390)^2\}}}$$

$$r_{xy} = \frac{10530 - 9750}{\sqrt{\{750 - (625)\}\{165180 - (152100)\}}}$$

$$r_{xy} = \frac{780}{\sqrt{\{125\}\{13080\}}}$$

$$r_{xy} = \frac{780}{\sqrt{16350000}}$$

$$r_{xy} = \frac{780}{1278,67}$$

$$r_{xy} = 0,61$$

From the computation above, the formula got the validity of t-test number 1 is 0, 61. Then she consulted to the standard validity. Since  $r_{xy} = 0,61$  was between 0, 60 ó 0, 79, so the vocabulary test of item number 2 was valid. The other computation can be seen in appendixes.

## 2) Item validity for reading comprehension

To calculate the validity for reading comprehension test ability, the writer used item number 16 as his example. From the table for validity and reliability of reading comprehension test ability, it shows that

$$N = 30, \Sigma X = 17 \quad \Sigma Y = 435 \quad \Sigma XY = 271 \quad \Sigma Y^2 = 6631$$

$$(\Sigma Y)^2 = 189225$$

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

$$r_{xy} = \frac{30(271) - (17)(435)}{\sqrt{\{30(17) - (17)^2\}\{30(6631) - (435)^2\}}}$$

$$r_{xy} = \frac{8130 - 7395}{\sqrt{\{510 - (289)\}\{198930 - (189225)\}}}$$

$$r_{xy} = \frac{735}{\sqrt{\{221\}\{9705\}}}$$

$$r_{xy} = \frac{735}{\sqrt{2144805}}$$

$$r_{xy} = \frac{735}{1464,52}$$

$$r_{xy} = 0,50$$

From the computation above, the writer got the validity of t-test number 1 is 0,50. Then he consulted to the standard validity. Since  $r_{xy} = 0,50$  was between 0,49 ó 0,59, so the vocabulary test of item number 2 was valid. The other computation can be seen in appendixes.

### 3.5.2.2 Reliability

Reliability of the test is one of important things to show a necessary characteristic of any good test. A test can be called reliable if the result of the test shows a consistency. The formula of reliability is:

$$r_{11} = \frac{2 \cdot r_{xy}}{(1 + r_{xy})}$$

Where:

$r_{11}$ : Reliability of total test

$r_{xy}$ : Reliability of the test correlation half of the test with the reliability of the whole test

#### 1) Reliability of vocabulary mastery

To clearer the reliability of vocabulary mastery, we can see in appendixes.

From the appendix reliability of vocabulary mastery, it showed that

$$N = 30, \Sigma X = 210 \quad \Sigma Y = 180 \quad \Sigma XY = 1340 \quad \Sigma X^2 = 1577 \quad \Sigma Y^2 = 1214$$

So,

$$r_{11} = r_{xy}$$

$$r_{11} = \frac{N \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{N \Sigma X^2 - (\Sigma X)^2\} \{N \Sigma Y^2 - (\Sigma Y)^2\}}}$$



$$r_{11} = \frac{30(1340) - (210)(180)}{\sqrt{\{30(1577) - (210)^2\}\{30(1214) - (180)^2\}}}$$

$$r_{11} = \frac{40200 - 37800}{\sqrt{\{47310 - (44100)\}\{36420 - (32400)\}}}$$

$$r_{11} = \frac{2400}{\sqrt{\{3210\}\{4020\}}}$$

$$r_{11} = \frac{2400}{\sqrt{12904200}}$$

$$r_{11} = \frac{2400}{3592,24}$$

$$r_{11} = 0,67$$

Then

$$r_{11} = \frac{2 \cdot r_{xy}}{(1 + r_{xy})}$$

$$r_{11} = \frac{2 \times 0,67}{(1 + 0,67)}$$

$$r_{11} = \frac{1,34}{1,67}$$

$$r_{11} = 0,80$$

In this computation, the reliability coefficient of the vocabulary test is 0,80. Then the writer consulted the standard reliability, since  $r_{11}$  was between 0,80 ó 1,00, therefore the vocabulary test was reliable.

2) Reliability of reading comprehension ability

To clearer the reliability of reading comprehension ability, we can see in appendixes. From the appendix reliability of reading comprehension, it shows that

$$N = 30, \Sigma X = 217 \quad \Sigma Y = 215 \quad \Sigma XY = 1605 \quad \Sigma X^2 = 1673 \quad \Sigma Y^2 = 1641$$

$$r_{11} = r_{xy}$$

$$r_{11} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{\{N\Sigma X^2 - (\Sigma X)^2\}\{N(\Sigma Y^2) - (\Sigma Y)^2\}}}$$

$$r_{11} = \frac{30(1605) - (217)(215)}{\sqrt{\{30(1673) - (217)^2\}\{30(1641) - (215)^2\}}}$$

$$r_{11} = \frac{48150 - 46655}{\sqrt{\{50190 - (47089)\}\{49230 - (46225)\}}}$$

$$r_{11} = \frac{1495}{\sqrt{\{3101\}\{3005\}}}$$

$$r_{11} = \frac{1495}{\sqrt{9318505}}$$

$$r_{11} = \frac{1495}{3052,62}$$

$$r_{11} = 0,49$$

Then

$$r_{11} = \frac{2 \cdot r_{xy}}{(1 + r_{xy})}$$

$$r_{11} = \frac{2 \times 0,49}{(1 + 0,49)}$$

$$r_{11} = \frac{0,98}{1,49}$$

$$r_{11} = 0,66$$

In this computation, the reliability coefficient of the reading comprehension is 0,66. Then the writer consulted the standard reliability, since  $r_{11}$  was between 0,60 ó 0,79 therefore the reading comprehension test was reliable.

### 3.5.2.3 Level of Difficulty

A good test is a test which is not too easy or too difficult. Difficult index is an item showing how easy or difficult of the particular test provide in the test. To compute this difficulty level, the writer uses the formula:

$$P = \frac{B}{Js}$$

Where:

P: Level difficulty

B: A number of the students who answer the items test right

Js: The number of the students

The criterion index of difficulty test is as the follows:

P: 0,00 ó 0,30: difficult

P: 0,31 ó 0,70: sufficient

P: 0,71 ó 1,00: easy

#### 1) Level of Difficulty for Vocabulary Mastery

For example, the writer took test number 3 to know the level of difficulty of vocabulary mastery. From the value table about level of difficulty in mastering vocabulary in appendixes, it shows that:

$$B = 24$$

$$Js = 30$$

So that,

$$P = \frac{B}{Js}$$

$$P = \frac{24}{30}$$

$$P = 0,80$$

From the computation, the level of difficulty of the vocabulary test number 3 was 0, 80. It means that the vocabulary test number 3 was easy, since it was between 0, 70 ó 1, 00. The level of difficulty for the other items can be seen in appendixes.

## 2) Level of Difficulty for Reading Comprehension

The writer took test number 4 as example to know the level of difficulty for reading comprehension. From the value table about level of difficulty for reading comprehension, it showed that:

$$B = 21$$

$$Js = 30$$

So that

$$P = \frac{B}{Js}$$

$$P = \frac{21}{30}$$

$$P = 0,70$$

From the computation, the level of difficulty of the reading comprehension test number 4 was 0, 70. It means that the vocabulary test number 4 was easy, since it was between 0, 31 ó 0, 70. The level of difficulty for the other items can be seen in appendixes.

#### 3.5.2.4 Discriminating Power of an Item

The discriminating power of an item is the ability of question differentiates between the students in the upper group and students in the lower group. To know the discriminating power of an item, the writer uses the following formula:

$$D = \frac{BA}{JA} - \frac{BB}{JB}$$

Where:

D: The discriminating of an item

BA: The number of students in the upper group who answered the question correctly

BB: The number of students in the lower group who answered the question correctly

JA: The number of students in the upper group

JB: The number of students in the lower group

##### 1) Discriminating Power for Vocabulary Mastery

To calculate discriminating power for vocabulary mastery, the writer used items test number 15 as the example:

$$BA = 14$$

$$BB = 12$$

$$JA = 15$$

$$JB = 15$$

So that,

$$D = \frac{BA}{JA} - \frac{BB}{JB} = PA - PB$$

$$D = \frac{14}{15} - \frac{12}{15}$$

$$D = 0,93 \text{ ó } 0,80$$

$$D = 0,13$$

From the computation above, the writer got the discriminating power for vocabulary mastery test number 15 was 0,13. It means that the test number 15 was poor, since it was between 0,00 ó 0,20. The discriminating power for the items can be seen in appendixes.

## 2) Discriminating Power for Reading Comprehension

To calculate discriminating power for vocabulary mastery, the writer used items test number 10 as the example:

$$BA = 12$$

$$BB = 9$$

$$JA = 15$$

$$JB = 15$$

So that,

$$D = \frac{BA}{JA} - \frac{BB}{JB} = PA - PB$$

$$D = \frac{12}{15} - \frac{9}{15}$$

$$D = 0,80 \text{ ó } 0,60$$

$$D = 0,20$$

From the computation above, the writer got the discriminating power for reading comprehension test number 10 was 0,20. It means that the test number 10 was poor, since it was between 0,00 ó 0,20. The discriminating power for the items can be seen in appendixes.



After the writer calculates the discriminating power of the items, the writer enters discriminating power of the items into indexes discriminating power, as follows:

D: 0, 00 ó 0, 20 (poor)

D: 0, 21 ó 0, 40 (fair)

D: 0, 41 ó 0, 70 (good)

D: 0, 71 ó 1, 00 (excellent)

After the writer gets the index of discriminating power of the items, then the writer enters the discriminating power into criterion of the items, as follows:

**Table 3.2 The Index of Discriminating Power of the Items**

Level of mastery	Level score	Value	Criterion
86% - 100%	A	4	Excellent
76% - 85%	B	3	Good
60% - 75%	C	2	Fair
55% - 59%	D	1	Less
0% - 54%	E	0	Poor

### 3.6 Procedure of Collecting Data

Method of data collection is very important in the research. There are several different methods that can be used in collecting data such as observation, interview, questionnaire, test and documentation.

Based on those methods, the writer chooses the test to get and collect data.

The purpose of test was to get the quantitative data, which was in the form of the test score. The test was given to the sample class. The test was given after the Headmaster of SMK Negeri 1 Batang allows the writer to do the research. The first test is vocabulary test and the second is the test of reading comprehension. After that the students' score would be used to prove whether there was a significant difference in their vocabulary achievement and reading comprehension.

Arikunto (2006: 224) stated that test is used to measure students' mastery vocabulary and reading comprehension. There are two kinds of achievement test:

1. Test which is made by the teacher with optional procedure, but these test are unknown characteristics and advantages because these test less try out to the students.
2. Standardized test is the test which is made by testing department. This test has been tried out many times to the students, so this test is good enough.

### **3.7 Technique of Data Analysis**

After the writer gets the score from the students' vocabulary mastery and reading comprehension, then the writer computerized the data statistically to find out the correlation between the two variables. To interpret the research finding is to test the null hypothesis that is a significant correlation between vocabulary mastery and reading comprehension. The steps to analyze the data as follows:

1. Find out the mean score of vocabulary test

After the writer got the total score of vocabulary test, the writer find out the mean score of vocabulary test. To get the mean score of vocabulary test, the writer uses formula as follows:

$$\bar{x} = \frac{\sum x}{N}$$

Where:

X = the mean score of vocabulary test

X = total score of vocabulary

N = total number of the students

To know the criteria of the mean score of the vocabulary test, the writer enters the mean score into Criterion of vocabulary, as follows:

Score	Criteria
86 ó 100	Very Good
71 ó 85	Good
61 ó 70	Fair
46 ó 60	Poor
0 ó 46	Very Poor

## 2. Find out the mean of reading comprehension test

After the writer got the total score of reading comprehension, the writer find out the mean score test of reading comprehension. To get the mean score of reading comprehension the writer uses formula as follows:

$$\bar{y} = \frac{\sum y}{N}$$

Where:

X = the mean score of vocabulary test

X = total score of vocabulary

N = total number of the students

To know the criteria of the mean score of the reading comprehension test, the writer enters the mean score into Criterion of reading comprehension, as follows:

Score	Criteria
86 ó 100	Very Good
71 ó 85	Good
61 ó 70	Fair
46 ó 60	Poor
0 ó 46	Very Poor

3. Find out the standard deviation of vocabulary mastery (Sx) and reading comprehension (Sy)

$$Sx = \sqrt{\frac{\sum X^2}{N}}$$

$$Sy = \sqrt{\frac{\sum Y^2}{N}}$$

4. Find out the correlation between X (vocabulary mastery test) and Y (reading comprehension test)

$$r = \frac{n(\sum XY) - \sum X \sum Y}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

After result of computation using the formula above, his research will be consulted to the correlational study of vocabulary mastery and reading comprehension by looking at the classification of the r-table below.

The interpretation of r-value

r-value	Interpretation
0,81 ≤ 1,00	Very High
0,61 ≤ 0,80	High
0,41 ≤ 0,60	Fair
0,21 ≤ 0,41	Low
0,00 ≤ 0,20	Very Low

## CHAPTER IV

### RESULT OF STUDY

In this chapter, this research would like to analyze the result of instrument, which has been researched to the sample class of the tenth grade students of SMK Negeri 1 Batang in academic year 2010/2011.

#### 4.1 Student's Vocabulary Mastery

To get the data, this research searches every score of every student. The formula to find vocabulary mastery's score can be seen in the following formula:

$$P = \frac{f}{N} \times 100\%$$

Where:

P: The percentage of correct answer

F: The frequency of the correct answer

N: The total number of the items test

In this case, the writer took the example of number 1

$$f = 16 \quad N = 20$$

$$P = \frac{16}{20} \times 100\%$$

$$P = 80 \%$$



For clearer explanation, it could be seen in following table:

**Table 4.1 The Percentage of Student's Vocabulary Mastery**

Number of Respondent	F	N	%	Grade
A-1	16	20	80	B
A-2	19	20	95	A
A-3	17	20	85	A
A-4	17	20	85	A
A-5	18	20	90	A
A-6	8	20	40	D
A-7	12	20	60	C
A-8	15	20	75	B
A-9	17	20	85	A
A-10	9	20	80	C
A-11	8	20	40	D
A-12	17	20	85	A
A-13	14	20	70	B
A-14	13	20	65	B
A-15	9	20	45	C
A-16	14	20	70	B
A-17	14	20	70	B
A-18	4	20	20	E
A-19	6	20	30	D
A-20	16	20	80	B
A-21	14	20	70	B
A-22	14	20	70	B
A-23	14	20	70	B
A-24	17	20	85	A
A-25	9	20	45	C
A-26	11	20	55	C
A-27	16	20	80	B
A-28	9	20	45	C
A-29	10	20	50	C
A-30	13	20	65	B
$\Sigma = 30$	390	20	1950	

After the test got the result from 30 students as the table above, he categorized the score to the table categories as follows:

**Table 4.2 Categories of the Score of the Students' Vocabulary Mastery**

No	Score Interval	Grade	Frequency	Category
1	81-100	A	7 students	Very good
2	61-80	B	12 students	Good
3	41-60	C	7 students	Fair
4	21-40	D	3 students	Poor
5	0-20	E	1 student	Very Poor

The table above shows that there were 7 students who got A which was categorized as very good, 12 students who got B which was categorized as good, 7 students got C which was categorized as fair, 3 students got D which was categorized as poor, 1 student who got E which was categorized as very poor.

To obtain the percentage of the students' letter grade, this research applied them in following formula:

$$P = \frac{f}{N} \times 100\%$$

The percentage of letter grade A

$$P = \frac{7}{30} \times 100\%$$

$$= 23,33 \%$$

The percentage of letter grade B

$$P = \frac{12}{30} \times 100\%$$

$$= 40 \%$$

The percentage of letter grade C

$$P = \frac{7}{30} \times 100\%$$

$$= 23,33 \%$$

The percentage of letter grade D

$$P = \frac{3}{30} \times 100\%$$

$$= 10 \%$$

The percentage of letter grade E

$$P = \frac{1}{30} \times 100\%$$

$$= 3,33 \%$$

For clearer explanation, it could be seen in following table:

**Table 4.3 The Percentage of the Score of the Students' Vocabulary Mastery**

Grade	Number of Student	Percentage
A	7	23,33%
B	12	40%
C	7	23,33%
D	3	10%
E	1	1,33%
Total	30	100%

After computing the percentage of correct answer, this research also computing the average score which is called as the mean of the score, it is represented by the symbol  $\bar{x}$ . The formula of the mean can be formulated as follows:

$$\bar{x} = \frac{\sum x}{N}$$

Where  $\bar{x}$  = the mean

$\sum x$  = the sum value of correct answer score

N = number of students

The computation of average value of vocabulary test can be formulated as follows:

$$\bar{x} = \frac{\sum x}{N}$$

$$\bar{x} = \frac{1950}{30}$$

$$\bar{x} = 65$$

Based on the descriptive method applied in this thesis is:

Test Score	Probable Class
90 ó 100	Excellent
75 ó 89	Good
65 ó 74	Fair
50 - 64	Poor
20 ó 49	Very Poor

The result means value of vocabulary mastery is 65, so categories score of the studentsømean value is fair, because it is between 65 ó 74.

## 4.2 Student's Reading Comprehension

To get the data, the writer searches every score of every student. The formula to find reading comprehension's score can be seen in the following formula:

$$P = \frac{f}{N} \times 100\%$$

Where:

P: The percentage of correct answer

F: The frequency of the correct answer

N: The total number of the items test

In this case, the writer took the example of number 8

$$f = 17 \quad N = 20$$

$$P = \frac{17}{20} \times 100\%$$

$$P = 85 \%$$

For clearer explanation, it could be seen in following table:

**Table 4.4 The Percentage of Student's Reading Comprehension**

Number of Respondent	f	N	%	Grade
A-1	15	20	75	B
A-2	16	20	80	B
A-3	19	20	95	A
A-4	10	20	50	C
A-5	15	20	75	B
A-6	13	20	65	B
A-7	14	20	70	B
A-8	17	20	85	A
A-9	17	20	85	A
A-10	12	20	60	C

A-11	11	20	55	C
A-12	15	20	75	B
A-13	11	20	55	C
A-14	19	20	95	A
A-15	16	20	80	B
A-16	8	20	40	D
A-17	17	20	85	A
A-18	16	20	80	B
A-19	8	20	40	D
A-20	11	20	55	D
A-21	18	20	90	A
A-22	17	20	85	A
A-23	16	20	80	B
A-24	14	20	70	B
A-25	15	20	75	B
A-26	17	20	85	A
A-27	18	20	90	A
A-28	15	20	75	B
A-29	13	20	65	B
A-30	16	20	80	B
$\Sigma n = 30$	435	20	2105	

After this research got the result from 30 students as the table above, he categorized the score to the table categories as follows:

**Table 4.5 Categories of the Score of the Students' Reading Comprehension**

No	Score Interval	Grade	Frequency	Category
1	81-100	A	9 students	Very good
2	61-80	B	13 students	Good
3	41-60	C	4 students	Fair
4	21-40	D	4 students	Poor
5	0-20	E	-	Very Poor



From the table above, it shows that there were 9 students who got A which was categorized as very good, 13 students who got B which was categorized as good, 4 students got C which was categorized as fair, 4 students got D which was categorized as poor, there was nobody who got E which was categorized as very poor.

To obtain the percentage of the students' letter grade, the writer applied them in following formula:

$$P = \frac{f}{N} \times 100\%$$

The percentage of letter grade A

$$\begin{aligned}
 P &= \frac{9}{30} \times 100\% \\
 &= 30\%
 \end{aligned}$$

The percentage of letter grade B

$$\begin{aligned}
 P &= \frac{13}{30} \times 100\% \\
 &= 43,33\%
 \end{aligned}$$

The percentage of letter grade C

$$\begin{aligned}
 P &= \frac{4}{30} \times 100\% \\
 &= 13,33\%
 \end{aligned}$$

The percentage of letter grade D

$$\begin{aligned}
 P &= \frac{4}{30} \times 100\% \\
 &= 13,33\%
 \end{aligned}$$

The percentage of letter grade E

$$P = \frac{0}{30} \times 100\%$$

$$= 0 \%$$

For clearer explanation, it could be seen in following table:

**Table 4.6 The Percentage of the Score of the Students' Reading Comprehension**

Grade	Number of Student	Percentage
A	9	30 %
B	13	43,33 %
C	4	13,33%
D	4	13,33 %
E	0	0 %
Total	30	100%

After computing the percentage of correct answer, the writer also computing the average score which is called as the mean of the score, it is represented by the symbol  $\bar{y}$ . Here is the formula of the mean:

$$\bar{y} = \frac{\sum y}{N}$$

Where  $\bar{y}$  = the mean  
 $\sum y$  = the sum value of correct answer score  
 N = number of students

Using the formula, the computation of average value of reading comprehension test is following:

$$\bar{y} = \frac{\sum y}{N}$$

$$\bar{y} = \frac{2105}{30}$$

$$\bar{y} = 70,17$$

Based on the descriptive method applied in this thesis is

Test Score	Probable Class
90 ó 100	Excellent
75 ó 89	Good
65 ó 74	Fair
50 - 64	Poor
20 ó 49	Very Poor

The result means value of reading comprehension's test is 70, 17. So categories of the score of the students's mean value of reading comprehension is fair, because it is between 65ó74.

### 4.3 Correlation between Vocabulary Mastery and Reading Comprehension Test

The main goal of the study is to find out whether there is a positive correlation between vocabulary mastery and reading comprehension of the seventh grade students of SMKN 1 Batang in the academic year of 2010/2011.

To find out the correlation between the two variables above, this research used the Pearson's product moment formula to compute the data. To carry out the statistical analysis, the working hypothesis is changed into the Null Hypothesis to know about the correlation between vocabulary mastery and

reading comprehension of the tenth grade students of SMKN 1 Batang in the academic year 2010/2011.

After condition of examination of hypothesis fulfilled, then this research will find out the examination of hypothesis with correlation.

To know the strength of relation between independent (x) and dependent (y) variables, the writer used correlation of Pearson product moment to calculate the correlation between vocabulary mastery and reading comprehension test. The formula which is used is:

$$r = \frac{n(\sum XY) - \sum X \sum Y}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

The value that is used for this calculation is as follows:

**Table 4.7 Helping Value for Correlation**

No	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	80	75	6400	5625	6000
2	95	80	9025	6400	7600
3	85	95	7225	9025	8075
4	85	50	7225	2500	4250
5	90	75	8100	5625	6750
6	40	65	1600	4225	2600
7	60	70	3600	4900	4200
8	75	85	5625	7225	6375
9	85	85	7225	7225	7225
10	80	60	2025	3600	2700
11	40	55	1600	3025	2200
12	85	75	7225	5625	6375
13	70	55	4900	3025	3850
14	65	95	4225	3025	5525



15	45	80	2025	6400	3600
16	70	40	4900	1600	2800
17	70	85	4900	7225	5950
18	20	80	400	6400	1600
19	30	40	900	1600	1200
20	80	55	6400	3025	4400
21	70	90	4900	8100	6300
22	70	85	4900	7225	5950
23	70	80	4900	6400	5600
24	85	70	7225	4900	5950
25	45	75	2025	5625	3375
26	55	85	3025	7225	4675
27	80	90	6400	8100	7200
28	45	75	2025	5625	3375
29	50	65	2500	4225	3250
30	65	80	4225	6400	5200
Total	1950	2105	130425	165325	144150

Known,  $N = 30$

$$\Sigma x = 1950$$

$$\Sigma Y = 2105$$

$$(\Sigma X^2) = 130425$$

$$(\Sigma Y^2) = 165325$$

$$\Sigma XY = 144150$$

Then

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

$$r_{xy} = \frac{30(144150) - (1950)(2105)}{\sqrt{\{30(1673) - (217)^2\}\{30(1641) - (215)^2\}}}$$

$$r_{xy} = \frac{4324500 - 4104750}{\sqrt{\{3912750 - (3802500)\}\{4959750 - (4431025)\}}}$$

$$r_{xy} = \frac{219750}{\sqrt{\{110250\}\{528725\}}}$$

$$r_{xy} = \frac{219750}{\sqrt{5829193125}}$$

$$r_{xy} = \frac{219750}{241437,22}$$

$$r_{xy} = 0,91$$

The correlation coefficient of the two variables is 0,91. In order to know whether this correlation coefficient (0,91) is significant or not, it is necessary to find out its significance.

Before  $r_{xy}$  got to be consulted with  $r_{table}$  with level of significance 5% for  $N = 30$ , first the writer must determine something called degrees of freedom (df). For this case, the degree of freedom is equal to 2 less than the number of subjects. The writer collected data from 30 students; the degrees of freedom would be 28.

**Table 4.8**

***Critical Values of the Pearson Product-Moment Correlation Coefficient***

$df = n-2$	Level of significance
df	0,05
28	.361



Then, got by  $r_{table} = 0,361$ , in the reality  $r_{value} = 0,910 > r_{table} = 0,361$ , there is relation which is significance between vocabulary mastery with reading comprehension test.

#### 4.4 Discussion

The result of data analysis shows that the correlation coefficient between the two variables is 0,910, while the critical value for 30 samples of 95 % confidence level is 0,361. It means that there is a positive correlation between the two variables.

According to Best (1981: 260), the criteria that can be used to grade the relationship of the coefficient are as follows:

**Table 4.9 Correlation Coefficient**

Correlation coefficient ( r )	Relationship
0. 00 to 0. 20	Negligible
0. 21 to 0. 40	Low
0. 41 to 0. 60	Moderate
0. 61 to 0. 80	Substantial
0. 81 to 1. 00	High to very high

The value of correlation coefficient obtained is 0,910 , while the criteria of the correlation between 0. 81 to 1. 00 are considered High to very high. It means that the level of relationship of the correlation coefficient of the two variables is High to very high. In this research those variables are correlated. For example if the score of vocabulary mastery is increase, it can be followed by the

increasing of reading comprehension score, or if the students have a high score of vocabulary mastery, it can be predicted that they will have the high score of reading comprehension.

From the computation above, the writer claims that  $r_{xy} = 0,910$  with N 30 are significant. It means that null hypothesis is rejected, and  $H_a$  hypothesis is accepted, there is a significant correlation study between vocabulary mastery and reading comprehension of the tenth grade students of SMKN 1 Batang in the academic year 2010/2011.



## CHAPTER V

### CONCLUSIONS AND SUGGESTIONS

In this chapter, this research would like to present the conclusions and suggestions to the reader, especially for the students and the teachers. This research hopes it will be useful for the readers to improve the quality of English Vocabulary.

#### A. Conclusions

Based on the research findings, the writer concluded some matters, as follows:

1. The result of data analysis shown in the table 1.3, there was 86,66% of the sample group mastering the vocabulary. Because there were 7 students who got A which was categorized as very good, 12 students who got B which was categorized as good, 7 students got C which was categorized as fair It was based on the addition of students percentages that got A up to C. The rest were 13,33% students that were not succesful yet. And there were 3 students got D which was categorized as poor, 1 student who got E which was categorized as very poor It was based on the addition of studentsøpercentages that got D up to E. And The result means value of vocabulary mastery is 65, When it is consulted to the table of category level scores, the score is categorized fair.

2. The result of data analysis shown in the table 2.3, there was 86,66% of the sample group reading comprehension. Because there were 9 students who got A which was categorized as very good, 13 students who got B which was categorized as good, 4 students got C which was categorized as fair It was based on the addition of studentsø percentages that got A up to C. The rest were 13,33% students that were not succesful yet. And there were 4 students got D which was categorized as poor, there was nobody who got E which was categorized as very poor It was based on the addition of studentsø percentages that got D up to E. And The result means value of reading comprehension test is 70, 17. When it is consulted to the table of category level scores, the score is categorized fair.
3. From the calculation of hypothesis test, the t-value had been 0,910 and t table had been 0,361. It had meant that t-value had been higher than t table. Thus, this research claims that  $r_{xy} = 0,910$  with N 30 are significant. It means that null hypothesis is rejected, and  $H_a$  hypothesis is accepted, there is a significant correlation study between vocabulary mastery and reading comprehension of the tenth grade students of SMKN 1 Batang in the academic year 2010/2011.

## B. Suggestions

Because of the vocabulary mastery effect the achievement of reading comprehension ability, the writer give the following suggestions:

1. Considering the importance of vocabulary mastery in supporting the other skills in English, English teacher should rather emphasized in teaching English vocabulary through various methods for example drilling, repeating, peer assesments.
2. Teacher should learn to give more varying example to the students, contained by variety of texts with intention so that the students like and get wide of experience in vocabulary and giving time to students to able in mastering the text not only know the objective of the subject.
3. To get a good achievement in reading comprehension, the students have to master vocabulary very well. Because vocabulary lesson is not explicitly specified in the curriculum, the teachers have a duty to help their students in improving their vocabulary by drilling techniques and varying techniques in teaching English based on their class vocation.

## BIBLIOGRAPHY

- Allen, Virginia French. 1983. *Technique in Teaching Vocabulary*. London: Oxford University.
- Anthony M, Edward and Jack Richards C. 1974. *Reading: Insights and Approaches*. Singapore: University Press for SEAMEO Regional English Language Center.
- Arikunto, Suharsimi. 1997. *Prosedur Penelitian Suatu Pendekatan Praktek*. Yogyakarta: PT Rineka Cipta.
- .....1998. *Prosedur Penelitian Suatu Pendekatan Praktek*. Yogyakarta: PT Rineka Cipta.
- Arikunto, Suharsimi. 2006. *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta: PT Rineka Cipta.
- Butler, A Robert. 1978. *Handbook of Practical Writing*. New York: Hill Inc. Company.
- Best, J. W. 1981. *Research in Education 4th Edition*. New Jersey: Prentice Hall Inc.
- Brown, J. D. 1988. *Understanding Research in Second Language Learning: A Teacher's Guide to Statistics and Research Design*. Cambridge: Cambridge University Press.
- Corson, David. 1995. *Using English Words*. Kluwer Academic Publishers,
- Creswell, W. John. 1994. *Research Design Qualitative and Quantitative Approaches*. United States of America: SAGE Publications.
- Departement Pendidikan dan Kebudayaan. 2004. *Standar Kompetensi Mata Pelajaran Bahasa Inggris*. Jakarta: Depdikbud.
- Departemen Pendidikan Nasional. 2006. *Kurikulum Tingkat Satuan Pendidikan*. Jakarta: Depdiknas.
- Brown, Douglas H. 2004. *Language Assessment, Principle and Classroom Practices*. San Francisco: Longman.
- Finocchiaro, M. 1974. *English as Second Language from Theory to Practice*. New York: Regents Publishing Company, Inc.



- Gunning, T. G. 1996. *Creating Reading Instruction for All Children*. Boston: Allyn and Bacon.
- Goldman, Corey. 2000. *Article of Ecology & Evolutionary Chronology*. University of Toronto.
- Gronlund, Norman E. 1985. *Measurement and Evaluation in Teaching*. New York: University of Illinois.
- Harris, Albert J., and Carl B Smith. 1976, *Reading Instruction, Diagnostic Teaching In the Classroom*, New York. Richard C. Owen Publisher, Inc.
- Hornby, As. 1974. *Oxford Advance Learner Dictionary of Current English*. Bristol: University Press.
- Howard Jackson. 2002. *Grammar and Vocabulary: A Resource Book for Students*. Rutledge,
- Husein. Umar. 1998. *Metode Penelitian untuk Skripsi dan Thesis*. Jakarta: PT. Raja Grafindo Persada.
- Ingo Plag. 2003. *Word-Formation in English*. Cambridge Univ. Press,
- Longman. 1992. *Longman Dictionary of English language and Culture*. Cambridge: Cambridge University Press
- Robert Mac Neil et al., *Do You Speak American*, Random House, 2005
- Tom McArthur, *the Oxford Companion to the English Language*. Oxford Univ. Press, 1992
- Wallace, J. Michael. 1982. *Teaching Vocabulary*. London: Briddles. Ltd.

## LESSON PLAN

**School** : SMK Negeri 1 Batang  
**Subject** : English  
**Class / Semester** : X / 1  
**Material** : Vocabulary Test and Reading  
Comprehension Test  
**Time Allocation** : 2 x 45 menit  
**Academic Year** : 2010 / 2011

### Standard Competence

2. Berkomunikasi dengan Bahasa Inggris setara *Level Novice*

### Basic Competence

1.3 Mendeskripsikan benda-benda, orang, ciri-ciri, waktu, hari, bulan dan tahun

### Indicators :

- Identify some questions about vocabulary
- Identify some questions about reading comprehension

### I. Learning Objectives

In the end of the meeting, the students are able to :

- a. Answer questions about vocabulary test
- b. Answer some questions about reading comprehension test

### II. Material of Learning

1. 40 multiple choice questions about vocabulary
2. 40 multiple choice questions about reading comprehension

### **III. Method of Study**

- a. Vocabulary test
- b. Reading comprehension test

### **IV. Steps of Learning Activity**

#### **Opening**

- a. The students pray together and greet the teacher.
- b. The students listen to the teacher when he/she is checking the attendance list of the students.

#### **Main activities**

1. Building Knowledge of Field (BKoF)
  - a. Students pay attention to the teacher who is giving explanation about the objective of the test
  - b. Teacher gives some copies of test questions
2. Modeling of the Text (MoT)
  - a. Teacher gives some example of questions.
  - b. Teacher explains how to do the test.
3. Joint Construction of the Text (JCoT)
4. Independent Construction of Text (ICoT)
  - a. Students do the vocabulary and reading comprehension test.

#### **Closing**

- a. Teacher asks the students the difficulty during the test.

### **V. Sources and media of the study**

- a. Bahasa Inggris SMK Kelas X, Sakti SMK

### **VI. Structured Assesment :**

-

### **VII. Evaluation**

A. Vocabulary test

Vocational School

Time: 45 minutes

Objective : Students are able to answer questions about vocabulary test

Instructions :

- Work individually.
- Choose the best option from 4 possible answer

Rubric:

Writing Test

1. Maximum score for each student :100

- Grade = total number of correct answer x 5

For instance:

James gets the number of wrong 5

Then his grade:  $15 \times 5$   
: 75

B. Reading comprehension test

Vocational School

Time: 45 minutes

Objective : Students are able to answer questions about reading comprehension

Instructions :

- Work individually.
- Choose the best option from 4 possible answer

Rubric:

Writing Test

1. Maximum score for each student :100

- Grade = total number of correct answer x 5

For instance:

James gets the number of wrong 5

Then his grade:  $15 \times 5$

: 75

Batang, May 2010

The Researcher

Hendry Setia Pradana

NIM 2201407139



### STUDENTS NAME OF THE SAMPLE GROUP

No	Name of Student	Score of Vocabulary Test	Score of Reading Comprehension Test
A-1	Ana Abdillah	80	75
A-2	Arfi Nadiati	95	80
A-3	Atitik Nurhijah	85	95
A-4	Citra Fia Lestari	85	50
A-5	Deby Prasetyo Agung	90	75
A-6	Desi Rizkiyanti	40	65
A-7	Endang Sari	60	70
A-8	Fitriani Diniyah	75	85
A-9	Fitriyani	85	85
A-10	Gita Ismawati	45	60
A-11	Idzaa Erfiani	40	30
A-12	Ita Alfi Fitriana	85	80
A-13	Kholi Fatmawati	70	55
A-14	Khoridatul Bahiyah	65	45
A-15	Kisbandiyah	45	80
A-16	Laila Tri Isnaeni	70	40
A-17	Leni Rosita	70	85





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A-18	Lidyawati	20	80
A-19	Lindasari	30	40
A-20	Maharani Citra Ayu P	80	35
A-21	Mohamad Lutfi	70	90
A-22	Nela Nur Faridah	70	85
A-23	Ninik Kurnia Sari	70	80
A-24	Novi Ardiani	85	70
A-25	Regina Tri Widya	45	75
A-26	Rina Erviana	55	85
A-27	Siska Yudia Vera	80	90
A-28	Syah Arian Toto	45	75
A-29	Vita Septika	50	65
A-30	Yurzakun	65	80

Helping table for reliability of Vocabulary Mastery

No	Odd (X)	Even (Y)	$X^2$	$Y^2$	XY
1	9	7	81	49	54
2	9	10	81	100	90
3	9	8	81	64	72
4	8	9	64	81	72
5	9	9	81	81	81
6	6	2	36	4	12
7	6	6	36	36	36
8	9	6	81	36	54
9	9	8	81	64	72
10	6	3	36	9	18
11	5	3	25	9	15
12	10	7	100	49	70
13	8	6	64	36	48
14	9	4	81	16	36
15	4	5	16	25	20
16	7	7	49	49	49
17	8	6	64	36	48
18	2	2	4	4	4
19	3	3	9	9	9
20	8	8	64	64	64



21	8	6	64	36	48
22	6	8	36	64	48
23	8	6	64	36	48
24	9	8	81	64	72
25	5	4	25	16	20
26	6	5	36	25	30
27	8	8	64	64	64
28	5	4	25	16	20
29	4	6	16	36	24
30	7	6	49	36	42
Total	210	180	1577	1214	1340

$$r_{xy} = 0,668$$

$$r_{11} = 0,801$$

Helping table for reliability of Reading Comprehension

No.	Odd (X)	Even (Y)	$X^2$	$Y^2$	XY
1	9	6	81	36	54
2	8	8	64	64	64
3	10	9	100	81	90
4	4	6	16	36	24
5	9	6	81	36	54
6	6	7	36	49	42
7	5	9	25	81	45
8	9	8	81	64	72
9	8	9	64	81	72
10	5	7	25	49	35
11	5	3	25	9	15
12	8	3	64	9	24
13	6	5	36	25	30
14	10	9	100	81	90
15	8	8	64	64	64
16	4	4	16	16	16
17	9	8	81	64	72
18	8	8	64	64	64
19	4	4	16	16	16
20	5	6	25	36	30



21	9	9	81	81	81
22	8	9	64	81	72
23	8	8	64	64	64
24	6	8	36	64	48
25	8	7	64	49	56
26	9	8	81	64	72
27	8	10	64	100	80
28	7	8	49	64	56
29	5	8	25	64	40
30	9	7	81	49	63
Total	217	215	1673	1641	1605

$$r_{xy} = 0,489$$

$$r_{11} = 0,657$$

**THE INSTRUMENT OF THE TEST**  
**LEMBAR SOAL**

**Mata Pelajaran** : Bahasa Inggris  
**Kelas** : X  
**Waktu** : 45 minutes  
**Nama** :

**PETUNJUK KHUSUS**

**Pilihlah salah satu jawaban yang paling tepat, dengan member tanda silang (x) pada huruf a, b, c, atau d pada lembar soal.**

**Text 1 is for question 1-10**

**Tropical Forest of the World**

A tropical rainforest is one of the earth's spectacular natural wonders. From its name we know that a rainforest is very wet. A forest is called a rainforest when it receives around 400-1000 cm of rain every year. That's a lot of rain! Los Angeles, for example, only gets 40-80 cm of rain every year.

There are a lot of rainforest in tropical areas, because in tropical areas there are two seasons: wet and dry season. During the wet season rainforests receive a lot of rain and so do they in the dry season. In the dry seasons, the water in the ground evaporates and become clouds. When the clouds get heavy, they fall to the ground and become rain.

Tropical rainforests are very important. They control the world's climate and give the earth a lot of oxygen. The plants in the rainforest are very useful for people's life. People can get their food, houses, and medicines from the rainforest. Rainforest also become the house of a lot of animals 90% of world's animal and plant species live in the rainforest.

Unfortunately, rainforests are now in danger. People clear the rainforest by cutting the trees. Every year, the world loses about 0,3 % of its forest. We cannot replace rainforest when we lose a rainforest, we lose it forever because it takes about 70-100 million years to get the rainforest back. That's why we must help to preserve rainforest. When we preserve them, we also preserve our life.

(taken from English on Sky eight grade Mukarto, M.Sc.)

1. A tropical rainforest is one of the world's (Paragraph 1 line 1). What is the meaning of rainforest?
- |                  |                   |
|------------------|-------------------|
| a. Hutan Lindung | c. Hutan Jati     |
| b. Hutan Hujan   | d. Hutan Tembakau |



2. í í í there are two seasons wet and dry seasoní (paragraph 2 line 2). What is the meaning of the word which is underlined?
  - a. Basah dan kering
  - b. Hujan dan kemarau
  - c. Basah dan kemarau
  - d. Hujan dan kering
3. A forest is called as í í .. (Paragraph 1 line 2). What is the meaning of word which is underlined?
  - a. Perkebunan
  - b. Hujan
  - c. Lautan
  - d. Hutan
4. í í ..and becomes clouds. What is the meaning of cloud?
  - a. Awan
  - b. Batu
  - c. Langit
  - d. Udara
5. From the text above, what is the meaning of preserve?
  - a. Melindungi
  - b. Menanam
  - c. Menebangi
  - d. Menyiram
6. Unfortunately, rainforest are now in danger. What is the meaning of danger?
  - a. Berbahaya
  - b. Terancam
  - c. Punah
  - d. Terawat
7. From this list of words below, what is the meaning of take?
  - a. Membuang
  - b. Mengambil
  - c. Memberi
  - d. Meminta
8. They control the word climate í í . (Paragraph 3 line 1). The meaning of climate is?
  - a. Iklim
  - b. Musim
  - c. Cuaca
  - d. Ramalan
9. What is the meaning of medicines?
  - a. Melindungi
  - b. Obat-obatan
  - c. Pepohonan
  - d. Jamu
10. What is the meaning of natural?
  - a. Buatan
  - b. Normal
  - c. Langit
  - d. Alami

### Text 2 is for questions 11-17

#### An Unlucky Camping

It was beginning of wet season, but the weather was fine in the morning. My classmate and I went camping to the camping ground.

We set up our tent in the middle of a field near a small river. As soon as this was done, we cooked a meal over an open fire. Everything was alright in the afternoon. But at night while we were singing songs by the campfire, a strong wind blew. It brought disorder to our tent. We could not sleep because it was

thundering and raining heavily. Lightning intensified the downpours. Soon the surrounding areas became flooded. We all panicked.

(taken from The Cambridge English Competence for SMK Grade X í í )

11. í í í we cooked a meal over an open fire. The underlined word is meantí í .
- |                |               |
|----------------|---------------|
| a. Kobaran api | c. Api unggun |
| b. Api terbuka | d. Api besar  |
12. From the text above, what is the meaning of field?
- |             |          |
|-------------|----------|
| a. Ladang   | c. Sawah |
| b. Lapangan | d. Kebun |
13. What is the meaning of wind ?
- |           |          |
|-----------|----------|
| a. Badai  | c. Angin |
| b. Guntur | d. Kilat |
14. The meaning of thundering isí í
- |           |          |
|-----------|----------|
| a. Badai  | c. Angin |
| b. Guntur | d. Kilat |
15. í .. it was thundering and raining heavily(paragraph 2 line 4). What is the meaning of heavily?
- |            |          |
|------------|----------|
| a. Gerimis | c. Lebat |
| b. Banjir  | d. Berat |
16. What is the meaning of lightning?
- |          |          |
|----------|----------|
| a. Topan | c. Petir |
| b. Badai | d. Kilat |
17. í . Areas become flooded. The underlined word is meantí í ..
- |            |               |
|------------|---------------|
| a. Longsor | c. Gempa bumi |
| b. Banjir  | d. Tornado    |

**Text 3 is for questions 18-20**

One day, Jane was caught in the rain. When she reached home, she started sneezing. Soon, she was down with cold.

The next morning, Jane's mother took her to the doctor. The doctor said that Jane had flu and he gave some medicine. He also advised to drink more water and take a good rest.

When Jane reached home, she went straight to bed. She slept till lunch time. Her mother carried her meal to her bedroom. She also brought Jane her medicine. After eating, Jane went back to sleep.

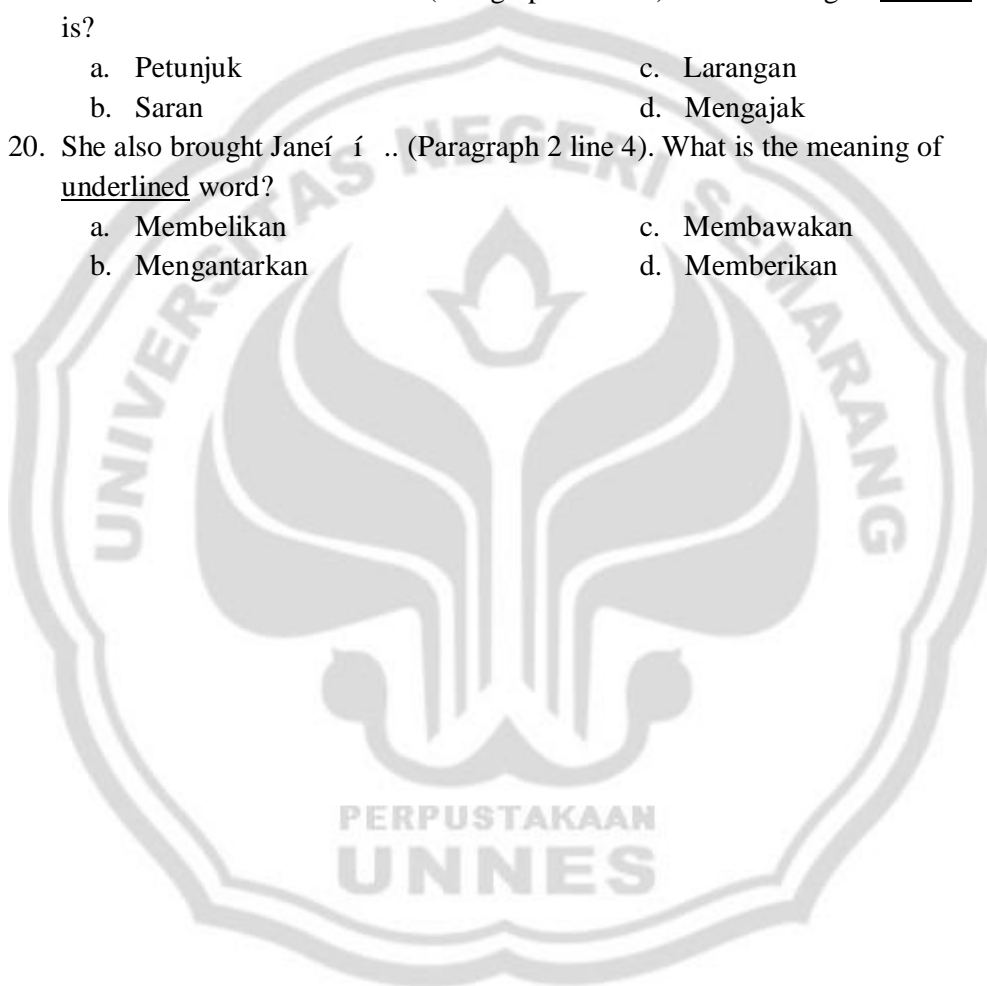
When Jane woke up for dinner, she felt much better. Her best friend called to find out how she was. She also told Jane briefly what teacher had taught that day.

The next day, Jane had recovered. She missed her friends and was so glad to go back to school again

(taken from The Cambridge English Competence for SMK Grade X

í í )

18. í í she was down with cold. What is the meaning of cold?
- |          |           |
|----------|-----------|
| a. Batuk | c. Dingin |
| b. Pilek | d. Sejuk  |
19. He also advised Jane to í í .. (Paragraph 2 line 2). The meaning of advised is?
- |             |             |
|-------------|-------------|
| a. Petunjuk | c. Larangan |
| b. Saran    | d. Mengajak |
20. She also brought Jane í í .. (Paragraph 2 line 4). What is the meaning of underlined word?
- |                 |               |
|-----------------|---------------|
| a. Membelikan   | c. Membawakan |
| b. Mengantarkan | d. Memberikan |



**THE INSTRUMENT OF THE TEST**  
**LEMBAR SOAL**

**Mata Pelajaran** : Bahasa Inggris  
**Kelas** : X  
**Waktu** : 45 minutes  
**Nama** :

**PETUNJUK KHUSUS**

**Pilihlah salah satu jawaban yang paling tepat, dengan member tanda silang (x) pada huruf a, b, c, atau d pada lembar soal.**

**Text 1 is for questions 1 – 10**

**An Unlucky Camping**

It was the beginning of the wet season, but the weather was fine in the morning. My classmates and I went camping to the camping ground.

We set up our tent in the middle of a field near a small river. As soon as this was done, we cooked a meal over an open fire. Everything was alright in the afternoon. But at night while we were singing songs by the campfire, a strong wind blew. It brought disorder to our tent. We could not sleep because it was thundering and raining heavily. Lightning intensified the downpours. Soon the surrounding areas became flooded. We all panicked.

(taken from The Cambridge English Competence for SMK Grade X)

1. How was the weather at the beginning of the wet season?
  - a. Bad
  - b. Good
  - c. Clear
  - d. Fine
2. When was the weather fine?
  - a. In the morning
  - b. In the afternoon
  - c. In the evening
  - d. At night
3. Who went to camping?
  - a. My classmates and I
  - b. The writer and her/his classmates
  - c. My classmates and the writer
  - d. The writer and I
4. Where did the writer go camping?
  - a. To the field
  - b. To the campground
  - c. In the village
  - d. Near the small river
5. Where did the writer cook?
  - a. In the kitchen
  - b. Over an open air
  - c. On the stove
  - d. In the room

6. What was the writer doing at midnight?
  - a. Singing a song
  - b. Cooking meals
  - c. Watching movie
  - d. Listening to music
7. What happened when they were singing songs at midnight?
  - a. Strong wind blew
  - b. Raining lightly
  - c. The writer was panicked
  - d. The camp was on fire
8. How was the tent?
  - a. Alright
  - b. In good order
  - c. Disorder
  - d. Strong
9. Why couldn't the writer sleep?
  - a. It was raining and thundering
  - b. They were cooking
  - c. They were singing a song
  - d. It was rioting
10. How was the campfire after raining?
  - a. Panicked
  - b. Flooded
  - c. Thunder
  - d. Fired

#### Text 2 is for questions 11 – 12

Sequoias, or redwood trees, grow in western United States, mostly in California and Oregon. Sequoias are some of the oldest living things on earth. They are also among the biggest. They often grow more than 30 meters high.

(taken from Practical American English Series, Reading Comprehension)

11. Sequoias are the name of ....
  - a. The city in the United States
  - b. The oldest tree
  - c. The new living thing
  - d. The country
12. These are the characteristics of the sequoias, except ....
  - a. Red
  - b. Tall
  - c. Old
  - d. Green

#### Test 3 is for questions 13 – 15

Lions are carnivores. They eat meat only by hunting. They do the hunting individually or in groups. When the prey is small and weak they do the hunting individually. But when it is large and strong they need to hunt in groups. Only female lions do the hunting while the male just take the meat from them.

(taken from The Cambridge English Competence for SMK Grade X)

13. Lions are carnivores because ...
  - a. They hunt a prey
  - c. They eat meat only



- b. They hunt in groups  
prey
- d. They hunt a small or large
- 14. Lions do the hunting in groups when ...
  - a. The prey is large and strong
  - c. The prey is small and weak
  - b. The prey is large and weak
  - d. The prey is small and strong
- 15. Only female lions do the hunting, it means ....
  - a. The male lions do hunting for the female
  - b. The female lions do hunting by themselves
  - c. The male lions do hunting by themselves
  - d. The female lion just take the meat from the male lion

#### Text 4 is for questions 16 – 20

One day, Jane was caught in the rain. When she reached home, she started sneezing. Soon, she was down with cold.

The next morning, Jane's mother took her to the doctor. The doctor said that Jane had flu and he gave some medicine. He also advised her to drink more water and take a good rest.

When Jane reached home, she went straight to bed. She slept till lunch time. Her mother carried her meal to her bedroom. She also brought Jane her medicine.

After eating, Jane went back to sleep.

When Jane woke up for dinner, she felt much better. Her best friend called to find out how she was. She also told Jane briefly what the teacher had taught that day.

The next day, Jane had recovered. She missed her friends and was so glad to go back to school again.

(taken from The Cambridge English Competence for SMK Grade X)

- 16. Why did Jane catch a cold?
  - a. She caught it from her friends
  - c. She did not wear a raincoat
  - b. She drank too much ice
  - d. She was caught in the rain
- 17. What did her mother do knowing her daughter catch a cold?
  - a. She gave her some water
  - c. She took her to doctor
  - b. She asked her to go bed
  - d. She gave her some medicine
- 18. What did the doctor suggest to her?
  - a. Not to catch in the rain
  - c. To be careful
  - b. To take enough map
  - d. To drink more water and take good a rest
- 19. Did her friends come to see Jane?
  - a. Yes, she did
  - c. No, she didn't
  - b. Yes, they did
  - d. No, they didn't





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20. How long did Jane catch a cold? For ...

- |             |               |
|-------------|---------------|
| a. One day  | c. Three days |
| b. Two days | d. Four days  |



Tabulation of vocabulary mastery																							
No	Code	Number																					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Y	
1	A-1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	16	256
2	A-2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	19	361
3	A-3	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0	1	1	17	289
4	A-4	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	17	289
5	A-5	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	18	324
6	A-6	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	1	0	8	64
7	A-7	1	1	1	1	1	1	0	0	0	1	0	0	0	1	1	1	1	0	1	0	12	144
8	A-8	1	1	1	1	0	1	1	0	0	0	1	1	1	1	1	1	1	0	1	1	15	225
9	A-9	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	17	289
10	A-10	1	0	1	1	1	0	1	0	0	1	0	0	1	0	1	0	0	0	0	1	9	81
11	A-11	0	0	1	0	1	0	0	0	0	0	1	1	0	1	1	0	0	1	1	0	8	64
12	A-12	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	17	289
13	A-13	1	1	1	1	1	0	1	0	0	1	1	1	0	1	1	1	1	0	1	0	14	196
14	A-14	1	1	1	0	1	0	1	0	1	1	1	0	0	0	1	0	1	1	1	1	13	169
15	A-15	0	0	1	0	0	1	0	0	0	1	1	0	0	1	1	1	1	1	0	0	9	81
16	A-16	1	1	1	1	0	1	0	0	0	1	1	1	1	0	1	1	1	1	0	1	14	196
17	A-17	1	1	0	1	1	0	1	0	1	1	0	1	1	1	1	1	1	0	1	0	14	196
18	A-18	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	4	16
19	A-19	1	1	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	6	36
20	A-20	1	1	1	1	1	0	1	0	1	1	0	1	0	1	1	1	1	1	1	1	16	256
21	A-21	1	1	1	1	1	0	1	1	1	1	0	0	0	1	1	0	1	0	1	1	14	196
22	A-22	1	1	1	1	1	0	0	1	0	0	1	1	1	1	1	0	0	1	0	1	14	196
23	A-23	1	1	1	1	1	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	14	196
24	A-24	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0	1	1	17	289
25	A-25	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	9	81
26	A-26	1	1	0	1	1	1	1	0	1	1	0	1	0	0	1	0	1	0	0	0	11	121
27	A-27	1	1	1	1	1	1	1	0	0	1	0	1	1	0	1	1	1	1	1	1	16	256
28	A-28	1	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	9	81
29	A-29	1	1	0	1	1	1	0	0	0	1	1	1	1	0	0	0	0	1	0	0	10	100
30	A-30	1	1	1	1	1	0	1	0	0	1	0	0	0	1	1	1	1	1	1	0	13	169
		27	25	25	23	28	11	18	7	12	21	12	18	16	19	26	17	25	18	21	20	390	5506
		729	625	625	529	784	121	324	49	144	441	144	324	256	361	676	289	625	324	184	400	152100	
		27	25	25	23	28	11	18	7	12	21	12	18	16	19	26	17	25	18	21	20		
		369	351	345	319	372	161	262	114	188	292	165	267	236	381	359	242	343	237	318	285		
		0.52	0.61	0.47	0.41	0.28	0.33	0.5	0.48	0.57	0.36	0.16	0.59	0.49	0.62	0.54	0.37	0.42	0.05	0.63	0.46		
	Krt	valid	valid	valid	valid	invalid	invalid	valid	valid	valid	valid	invalid	valid	valid	valid	valid	valid	valid	invalid	valid	valid		
	B	27	26	24	23	28	11	20	7	12	21	12	19	16	19	26	16	25	17	22	20		
	Js	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		
	P	0.9	0.87	0.8	0.77	0.93	0.37	0.67	0.23	0.4	0.7	0.4	0.63	0.53	0.63	0.87	0.53	0.83	0.57	0.73	0.67		
	Krt	easy	easy	easy	easy	easy	suff	suff	diff	suff	suff	suff	suff	suff	suff	easy	suff	easy	suff	easy	suff		
	BA	13	12	15	10	14	7	10	4	7	11	9	9	8	12	14	10	13	8	13	10		
	BB	14	13	10	13	14	4	8	3	5	10	3	9	8	7	12	7	12	10	15	15		
	PA	0.87-	0.8	1	0.67	0.93	0.47	0.67	0.27	0.47	0.73	0.6	0.6	0.53	0.8	0.93	0.67	0.87	0.53	0.87	0.67		
	PB	0.93	0.87	0.67	0.87	0.93	0.27	0.53	0.2	0.33	0.67	0.22	0.6	0.53	0.47	0.8	0.47	0.8	0.67	0.6	0.67		
	D	-0.06	-0.06	0.33	-0.2	0	0.2	0.14	0.07	0.14	0.06	0.4	0	0	0.33	0.13	0.2	0.06	-0.13	0.27	0		
	Krt	out	out	fair	out	poor	poor	poor	poor	poor	poor	fair	poor	poor	fair	poor	poor	poor	out	poor	poor		

Tabulation of Reading Comprehension																						
No	Code	Number																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Y
1	A-1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	15
2	A-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	16
3	A-3	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19
4	A-4	1	1	1	1	1	0	0	0	0	0	1	1	1	1	0	0	0	1	1	1	10
5	A-5	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	0	15
6	A-6	1	1	0	0	0	1	1	0	1	1	1	1	1	1	1	0	0	1	0	1	13
7	A-7	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	0	1	14
8	A-8	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0	17
9	A-9	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	17
10	A-10	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	0	0	1	0	1	12
11	A-11	0	0	1	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	1	0	8
12	A-12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	15
13	A-13	1	1	1	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	1	0	11
14	A-14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	19
15	A-15	0	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	16
16	A-16	1	1	1	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	8
17	A-17	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	17
18	A-18	1	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	16
19	A-19	1	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	8
20	A-20	1	1	1	1	1	0	1	0	1	0	0	0	0	0	1	0	1	0	1	1	12
21	A-21	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	18
22	A-22	1	1	1	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	17
23	A-23	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	0	0	1	16
24	A-24	1	1	1	0	1	1	1	0	1	1	0	1	1	1	0	1	1	1	0	1	14
25	A-25	1	0	1	0	0	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	15
26	A-26	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	1	1	17
27	A-27	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	18
28	A-28	1	0	0	1	1	1	1	1	0	1	1	1	0	1	0	1	0	1	0	1	15
29	A-29	1	1	0	1	1	1	0	0	1	1	1	0	1	1	1	1	0	1	0	1	13
30	A-30	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	0	16
		28	25	23	21	27	25	23	21	26	22	22	24	20	25	14	17	17	17	19	21	435
		784	625	529	441	729	625	529	441	676	484	484	576	400	625	196	289	289	289	361	441	
		28	25	23	21	27	25	23	21	26	22	22	24	20	25	14	17	17	17	19	21	
		413	365	351	328	390	370	349	338	389	313	344	373	316	372	224	271	279	256	265	322	
		0.28	0.53	0.42	0.52	0.44	0.22	0.37	0.45	0.36	0.13	0.57	0.29	0.56	0.26	0.43	0.5	0.67	0.58	0.05	0.38	
	Krt	invalid	valid	valid	valid	valid	invalid	valid	valid	valid	invalid	invalid	valid	valid	invalid	valid	valid	valid	valid	invalid	valid	
	B	28	25	23	21	27	25	23	21	26	22	22	24	20	25	14	17	17	17	19	21	
	Js	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
	P	0.93	0.83	0.77	0.7	0.9	0.83	0.77	0.7	0.87	0.73	0.73	0.8	0.67	0.83	0.47	0.57	0.57	0.57	0.63	0.7	
	Krt	easy	easy	suff	easy	easy	easy	suff	easy	easy	easy	easy	suff	easy	suff	suff	suff	suff	suff	suff	suff	
	BA	13	13	14	11	14	13	11	11	13	12	12	13	11	10	6	6	8	8	10	9	
	BB	14	12	10	11	13	12	12	10	13	8	10	11	9	15	8	11	9	9	9	12	
	PA	0.87	0.87	0.93	0.73	0.93	0.87	0.73	0.73	0.87	0.8	0.8	0.87	0.73	0.67	0.4	0.4	0.53	0.53	0.67	0.6	
	PB	0.93	0.8	0.67	0.73	0.87	0.8	0.8	0.67	0.87	0.53	0.67	0.73	0.6	1	0.53	0.73	0.6	0.6	0.6	0.8	
	D	-0.06	0.07	0.26	0	0.06	0.07	-0.07	0.06	0	0.27	0.13	0.14	0.6	-0.33	-0.13	-0.33	-0.07	-0.07	0.07	-0.2	
	Krt	out	poor	poor	poor	poor	poor	out	poor	poor	poor	poor	poor	poor	fair	out	out	out	out	poor	out	