

Kshs. 3,000/-

**DEPTH AND BREADTH OF VOCABULARY KNOWLEDGE AND ENGLISH  
LANGUAGE READING COMPREHENSION AMONG SELECTED STANDARD  
EIGHT PUPILS IN MERU CENTRAL DISTRICT, KENYA.**

**BY**

**STELLA MUKIRI RWANDA**

**DEPARTMENT OF EDUCATIONAL COMMUNICATION AND TECHNOLOGY**

**A RESEARCH THESIS SUBMITTED FOR THE DEGREE OF MASTER OF  
EDUCATION IN THE SCHOOL OF EDUCATION, KENYATTA UNIVERSITY**

Rwanda, Stella  
*Depth and breadth of  
vocabulary knowlwdge*



2011/357481

**KENYATTA UNIVERSITY LIBRARY**

**December 2009**

### DECLARATION

This Thesis is my original work and has not been presented for a degree in any other University.

Signature  ..... Date 7<sup>th</sup> December 2009

**STELLA MUKIRI RWANDA**

We confirm that the work reported in this thesis was carried out by the candidate under our supervision as University Supervisors.

1. Signature  ..... Date 7<sup>th</sup> December 2009

**Prof. Agnes Gathumbi**  
**Senior Lecturer,**  
Department of Educational Communication and Technology  
Kenyatta University

2. Signature  ..... Date 7<sup>th</sup> December 2009

**Prof. Theodorus G. Groenewegen**  
**Senior Lecturer,**  
Department of Educational Communication and Technology  
Kenyatta University

## DEDICATION

This work is dedicated to my beloved parents John Rwanda and my late mother Monica Karimi who taught me to be whom I am. To Rev. Fr. Nobert Mushoff and Fr. Gikunda, for their daily prayers and spiritual guidance.

## ACKNOWLEDGEMENTS

The task of writing this thesis was made possible by the indispensable assistance of individuals, institutions and organizations whose contributions I wish to acknowledge.

I wish to first express my appreciation to Professor Agnes Gathumbi and Professor Theodorus Groenewegen, for their willingness to act as my supervisors. I especially acknowledge my indebtedness to these supervisors for their expert guidance and patience that made the completion of this research possible.

Gratefully acknowledged also is the grant received for this study from Kenyatta University through the Department of Educational Communication and Technology. The financial support from Fr. Norbert Mushoff and my benefactors from Germany is also highly appreciated.

I thank the head teachers, teaching staff, and pupils of the sampled primary schools for this study for their generous contribution and cooperation during the data collection exercise.

I wish to give special thanks to my nieces; Cynthia, Glorious Glory, Maurine, Immaculate, Violate, and my nephews ; Emmanuel, Clifford, Malcolm and Ryan. I also thank my sisters, brothers and in-laws for their moral support.

I thank all my lecturers, the support staff and my course mates in the Department of Educational Communication and Technology, my friends and all those who always motivated and encouraged me and gave me moral support throughout the study.

Lastly and above all, I give thanks to God the almighty, for without His grace, and providence, this work could not have been completed.

## ABSTRACT

Since English language is the medium of instruction in Kenyan schools, it is pertinent that pupils are proficient in the language of instruction and testing. Lack of competency in language would inadvertently affect the performance in examinations. The better the vocabulary knowledge (VK) of the pupils, the better the reading comprehension ability of the pupils among other skills.

Vocabulary acquisition is a key component to successfully develop communication and reading skills. The need to do this research resulted from the realisation that a lot of resources are used in the teaching and learning of English language, yet the pupils continue to perform dismally in English language. Previously issues on both breadth and depth of vocabulary knowledge have not been addressed in research to show the important role they play in reading comprehension. The researcher was thus inspired to carry out this study because there was lack of information on the significant value of depth and breadth of vocabulary knowledge as reflected in reading comprehension.

The study adopted a descriptive survey design and was carried out in Miriga Mieru East Division, Meru District, Eastern Province, Kenya. The target population was 21 public primary schools which were purposively sampled from which a sample of 6 schools was randomly selected. Standard eight pupils in the selected schools were the test subjects. In each school, a total of 36 pupils were selected randomly from for the study. The total sample size tested was 216 pupils.

The data were collected using three tests; cloze test, a matching test and reading comprehension test. Both quantitatively and qualitatively data were generated. Using Statistical Package for the Social Scientist (SPSS), it was then coded, analyzed and presented using frequency tables, charts, graphs and percentages. Data were summarized according to research objectives and the variables of the study.

The study found out that majority of the pupils had above average breadth of VK and that less than half of the pupils had above average depth of VK. Also there was a positive significant relationship between depth and breadth of VK and reading comprehension although depth of VK had a slightly higher relationship.

The study concluded that depth and breadth of VK are key in improving reading comprehension ability and that inadequate breadth and depth of VK contributes to poor performance in reading comprehension and vice versa. In addition it was concluded that depth of VK is more significant in reading comprehension ability than the breadth of VK. The study recommends that both depth and breadth of VK requires equal attention in vocabulary teaching in classroom and teachers should teach words in meaningful contexts and encourage learners to read and write widely among other recommendations. Lastly the study recommends further research.

**ABBREVIATIONS AND ACRONYMS**

**EFL:** English as a First Language

**ELLS:** English Language Learners

**ELPs:** English Language Pupils

**KNEC:** Kenya National Examination Council

**L<sub>1</sub>:** First Language

**L<sub>2</sub>:** Second Language

**PMCC:** Pearson Product-Moment Correlation Coefficient

**SPSS:** Statistical Package of the Social Scientist

**VK:** Vocabulary Knowledge

**VKT:** Vocabulary Knowledge Test

## TABLE OF CONTENTS

Declaration .....	i
Dedication.....	ii
Acknowledgements .....	iii
Abstract.....	iv
Abbreviations and acronyms .....	v
Table of Contents .....	vi
List of tables .....	x
List of figures .....	xi
<b>CHAPTER ONE.....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>1</b>
1.0 Background to the Study .....	1
1.1 Statement of the Problem .....	4
1.2 Purpose of the Study.....	4
1.3 Study Objectives.....	5
1.4 Research Questions .....	5
1.5 Significance of the Study.....	5
1.6 Limitations and Delimitations of the Study.....	6
1.7 Assumptions of the Study.....	7
1.8 Theoretical and Conceptual Framework .....	7
1.8.1 Theoretical framework .....	7
1.8.2 Conceptual Framework .....	10
1.9 Operational Definition of Terms .....	11
<b>CHAPTER TWO.....</b>	<b>13</b>
<b>LITERATURE REVIEW .....</b>	<b>13</b>
2.0 Introduction .....	13
2.1 Vocabulary Knowledge .....	13

2.2 Depth of Vocabulary Knowledge.....	15
2.3 Receptive Versus Productive Vocabularies.....	17
2.4 Breadth of Vocabulary Knowledge.....	18
2.5 Direct Teaching Versus Contextual Inferencing.....	20
2.6 Role of Vocabulary Knowledge in Reading Comprehension.....	21
2.7 Summary of the Literature Review.....	24
<b>CHAPTER THREE.....</b>	<b>25</b>
<b>RESEARCH METHODOLOGY.....</b>	<b>25</b>
3.0 Introduction.....	25
3.1 Research Design.....	25
3.2 Variables.....	25
3.3 Location of the Study.....	26
3.4 Target Population.....	27
3.5 Sampling techniques and sample size.....	28
3.5.1 Sampling Techniques.....	28
3.5.2 Sample Size.....	28
3.6 Construction of Research Instruments.....	29
3.6.1 The Depth of Vocabulary Test (Cloze Tests).....	29
3.6.2 Breadth of Vocabulary knowledge Test.....	31
3.6.3 Reading Comprehension Test.....	31
3.7 Pilot Study.....	32
3.7.1 Validity.....	32
3.7.2 Reliability.....	32
3.8 Data Collection Techniques.....	33
3.9 Data Analysis.....	33
3.10 Logistical and Ethical Consideration.....	34

<b>CHAPTER FOUR</b> .....	25
<b>DATA PRESENTATION, ANALYSIS AND DISCUSSION</b> .....	35
4.0 Introduction .....	35
4.1 Methods of Data Analysis .....	35
4.1.1 Breadth of Vocabulary Knowledge.....	35
4.1.2 Cloze Test Measuring the Depth of Vocabulary Knowledge.....	38
4.2 Depth of Vocabulary Knowledge.....	38
4.3 Reading Comprehension Test.....	40
4.4 Breadth Vs Comprehension Cross Tabulation .....	42
4.5 Depth of Vocabulary Knowledge Ranks Vs Reading Comprehension Ranks.....	44
4.6. Correlation between Breadth of Vocabulary Knowledge and English Reading comprehension.....	46
4.7 Correlation between Depth of Vocabulary Knowledge and Reading comprehension.....	47
4.8 Discussions .....	48
 <b>CHAPTER FIVE</b> .....	 53
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS</b> .....	51
5.0 Introduction .....	51
5.1 Summary.....	51
5.2 Implication of the Findings .....	51
5.2.1 Finding Concerning Breadth of Vocabulary Knowledge.....	51
5.2.2 Finding concerning Depth of Vocabulary knowledge.....	51
5.2.3 Findings Concerning Reading Comprehension Using a Reading Comprehension Passage.....	52
5.2.4 Findings on the Relationship between Breadth of Vocabulary Knowledge and Reading Comprehension of Pupils .....	52
5.2.5 Findings Concerning Relationship between Depth of Vocabulary and Comprehension.....	53

5.3 Conclusion.....	54
5.4 Recommendations .....	56
5.5 Further Research.....	59
REFERENCES .....	61
APPENDIX A .....	66
APPENDIX B.....	68
APPENDIX C.....	69

**LIST OF TABLES**

Table 3.1: Primary Schools' English Language Performance Results Year- 2007.....	27
Table4.1 Pupils Scores on Breadth of Vocabulary Knowledge Test. ....	36
Table 4.2 Pupils' Scores on Depth of Vocabulary Knowledge Test.....	39
Table4.3 Pupils Scores on Reading Comprehension Test.....	41
Table 4.4 Reading Comprehension and Breadth of Vocabulary Knowledge .....	42
Table 4.5 Scores on Reading Comprehension and Depth of Vocabulary Knowledge.....	45
Table 4.6 Correlation between Breadth of VK and Reading Comprehension .....	47
Table 4.7 Correlation between Depth of VK and Reading Comprehension .....	48

**LIST OF FIGURES**

Figure 1.1 Conceptual framework showing the relationship of the study variables .....	11
Figure 4.1 Percentages of Breadth of Vocabulary Knowledge Scores .....	37
Figure 4.2 Pupils Scores on Depth of Vocabulary Knowledge Test.....	40
Figure 4.3 Pupils Scores on Reading Comprehension Test .....	41
Figure 4.4 Relationship between Reading Comprehension and Breadth of VK.....	44
Figure 4.5 Relationships between Reading Comprehension and Depth of VK .....	46

## CHAPTER ONE

### INTRODUCTION

#### 1.0 Background to the Study

Vocabulary acquisition is a key component to successfully develop communication and literacy skills. Developing a rich vocabulary is a top priority and an ongoing challenge for both first language (L<sub>1</sub>) and second language (L<sub>2</sub>) instruction. Teresia (1997) has observed that whereas L<sub>1</sub> pupils arrive at preschool with a command of 2,000 to 6,000 words, most L<sub>2</sub> pupils begin their academic experience at zero. Once in the academic setting, L<sub>2</sub> pupils are exposed to a great amount of vocabulary in a myriad of subject areas. They are required to use a fair amount of vocabulary throughout the day, acquiring a much larger vocabulary in the target language than pupils in traditional L<sub>2</sub> learning settings. Yet, due to the intense focus on content in the classroom setting and a lack of systematic vocabulary instruction, most L<sub>2</sub> pupils' vocabulary knowledge is insufficient for quality age appropriate expression and literacy development in secondary levels.

In addition, this critical lack of depth and breadth of vocabulary makes it difficult for pupils to express high level complex thoughts, opinions or concepts. Limited depth and breadth of vocabularies make it difficult for pupils to comprehend age-appropriate or subject appropriate reading skills in the English language. Word knowledge varies from total lack of knowledge to varying degree of partial knowledge, to complete knowledge. Pupils may have implicit or unreportable rather

than explicit knowledge about the meanings of many words. If the word is totally unfamiliar, the word might possess all the characteristics of a non word for the pupils.

It has long been accepted that vocabulary knowledge is instrumental in reading comprehension, (Anderson, 2000; Anderson and Freebody, 1981; Read, 2000). First language reading researchers mentioned above have also noted the importance of both breadth and depth of vocabulary knowledge in reading comprehension. It is arguable that both vocabulary size and depth are important for reading comprehension. Reading comprehension involves several factors including the ability to recognize words, word knowledge (also referred to as schema) and vocabulary knowledge. Vocabulary knowledge refers to the knowledge of a word's different meaning in relation to other words in the lexicon, while word knowledge involves knowing a word's form and meaning. When one says that there is a word in English that takes the form of a "boy", he cannot claim to know what "boy" means since the form of the word does not tell anything about its meaning. "Knowing" a word also involves knowing its grammatical function. In other words, knowing the meaning of a word does not just mean knowing its dictionary meaning or meanings. It also means knowing the words commonly associated with it (its collocations), as well as its connotations, register, and cultural accretions. Knowing a word also means knowing the meaning of the word and one knows how to use it in a sentence.

Sentences and passages are made up of words and a good stock of word knowledge is required for comprehending sentences. The relationship between vocabulary knowledge and reading comprehension is indicated by the high degree of correlation between the two.

Unless some understanding of reading for meaning is achieved, we remain embarrassingly ignorant about questions that appear superficially easy.... Reading with understanding, as opposed to mere pronunciation of words, is definitely an important factor in learning. (Neisser, 1967, pp. 134-137).

Since English language is the medium of instruction and testing in Kenyan schools from class 4 upwards, it is pertinent that pupils are able to handle the language of instruction and testing, as lack of this skill would inadvertently affect performance in examinations. Studies by Jayanthi and Vimala (1991), and Dalton et al. (1966), indicate that the better the reading ability, the higher the academic performance. It is, therefore, possible that some of the poor performance in examinations displayed by pupils in our primary schools reflects to a large extent a deeper problem of inadequately developed vocabularies and reading skills in English which is the language of assessment.

It is against this background that this study was carried out with the aim of assessing the relationship between depth and breadth of vocabulary knowledge and English language reading comprehension.

### **1.1 Statement of the Problem**

When we speak of the vocabulary of a language, we are referring primarily but not exclusively of the words of that language. Words are the standing items of language that have meaning and the importance of knowledge of vocabulary in language cannot be overemphasized.

For the last six years, performance in English language in National Examinations (KCSE and KCPE) has been very poor. This is according to Kenya National Examinations Council (KNEC) Examination results. Studies have been done on English language and teaching but as far as the researcher knows and from literature review, no research has been done in this area in Kenya. Poor performance in English language means poor performance in other subjects since English language is the language of instruction from primary class four upwards. Lack of depth and breadth of vocabulary would mean lack of understanding of what is read, ultimately resulting in poor performance in school.

This study, therefore, aimed at investigating what added value is derived from depth and breadth of vocabulary knowledge as reflected in reading comprehension.

### **1.2 Purpose of the Study**

The purpose of this study was to;

- a) Establish whether or not pupils' depth of vocabulary knowledge relate to their reading comprehension in English language.

- b) Determine the significance of depth rather than breadth/size of vocabulary in reading comprehension.

### 1.3 Objectives of the Study

The objectives of the study were to investigate:

- a) Pupils' breadth of vocabulary knowledge and performance.
- b) Pupils depth of vocabulary knowledge and performance
- c) The effects of vocabulary knowledge on reading comprehension.

### 1.4 Research Questions

This study was guided by the following research questions:

- (a) Do scores on breadth of vocabulary knowledge predict the pupils' scores in reading comprehension test?
- (b) Do scores on depth of vocabulary knowledge predict the scores on reading tasks of basic comprehension exercises?
- (c) What is the relationship between vocabulary knowledge and reading comprehension?

### 1.5 Significance of the Study

It is well known fact that vocabulary knowledge is an important factor to be considered broadly in the learning process and for reading with understanding to be achieved.

The findings of this study are useful to primary school teachers who may use findings to effective develop methods of teaching and reading and development of vocabulary

knowledge, as they have shown that depth and breadth of vocabulary knowledge is an important aspect in reading with understanding.

Various Educational institutions and individuals will benefit greatly from this study, since it has shown the importance of vocabulary knowledge in English language reading, comprehension. This will make teachers aware of the need to put more emphasis on the development of vocabulary knowledge among pupils.

This study will also pave way for further research in the broad area of vocabulary knowledge and its relationship with other subject areas apart from English language alone.

### **1.6 Limitations of the Study**

The study was limited to one district in Kenya out of 74 as at Feb, 2007. Only Meru District was chosen to represent a small sample of other districts in Kenya. The researcher looked at this small number in depth rather than try to cover too large a sample at a superficial level.

The study looked at breadth and depth of vocabulary knowledge, although vocabulary knowledge comprises of many other levels and sub-levels which were left out. These levels of vocabulary knowledge are (a) lexical organization, which refers to the storage, connection and representation of words in the mental lexicon; and (b) automaticity of receptive – productive knowledge, which refers to all fundamental processes through which access to word knowledge is achieved for both receptive and productive purposes.

The sub levels that were left out include; frequency of occurrence, word register, word collocation, word morphology, word semantics, word polysemy, the relationship of sound to spelling and knowledge of the equivalent of the word in the mother tongue

### **1.7 Assumptions of the Study**

The tests that were given involved the pupils' ability to read the questions and respond correctly. The researcher, therefore, worked with the assumption that all her sample could read with understanding.

The study was also carried out with the assumption that social economic status of the pupils would not make a great difference to the findings of the study since even pupils with low social economic status, given the right opportunity and environment would perform well in any given test.

### **1.8 Theoretical and Conceptual Framework**

#### **1.8.1 Theoretical framework**

The theoretical framework guiding this study was largely based on the collective strength of Top-Down model discussed by Smith (1971) and Goodman (1967). In reading, there are several differing perspectives or models of reading, and learning to read. Smith (1971) and Goodman (1967) believe that comprehension can only be attained if the reader can infer the meaning of various words from the context in which they are presented. They hold the view that exact decoding is not of primary importance and is not necessarily useful when the reader is seeking to get meaning from a text. They emphasize

the importance of higher processes, such as the reader's prior knowledge in controlling the reading process. This prior knowledge refers to the reader's knowledge of words in the sense that he knows their various meanings but not the exact "correct" pronunciation for decoding.

According to this view, lower processes like decoding are facilitated by this prior knowledge. One does not need, therefore, to be an efficient decoder to be able to get meaning from the text. The emphasis is therefore on extracting the meaning of a word from the context. Thus, the reading process would rely heavily on the amount of experience that the reader has with the words. His build up of reading comprehension facilitates, his understanding of the text and his ability to decode new text. Smith (1971) and Goodman (1967) both agree that when a reader reads for meaning, he is always in a position to verify whether what he reads makes sense. If it does not make sense, he regresses in an effort to locate the point where the error occurred. When he detects the reason for confusion, he then reprocesses graphic, syntactic, and semantic information and corrects the error he has identified (Goodman 1970).

In addition, Goodman (1967) and Smith (1971) believe that all reading utilize self correcting strategies extending or transferring habits and attitudes learnt in connection with the listening and speaking to the reading situation. Even when it comes to new words, Smith (1971) states that, the most efficient way to determine the meaning from the rest of the text is to infer its meaning from the rest of the text. This technique can,

however, only be acquired through wide reading and predicting, which is only accurate through wide exposure to correct language usage that would in turn build up the pupil's vocabulary.

It is likely Meru pupils may find themselves unable to make vital predictions in English, which would lead to the understanding of the text, especially where unfamiliar words exist. This is because they have only a limited scope of background knowledge and experience with English words to draw from given that most of their communication is in their mother tongue. These pupils may also be unable to use the self-correcting strategy efficiently as it is likely that they are not competent language users of English since they may not yet be proficient.

Other leading theorists of the same perspective, Yetta, Goodman and Carolyn Burke (1972) also hold the view that meaning is gained not from individual words, but from the surrounding context. They contend that when we read, we do not make predictions on the basis of looking at every pronunciation mark, letter, word, or sentence. Instead we select certain aspects of the available language. Because of background and experience accumulated over the years, we know what is usually significant and select only the most significant cues to help us make predictions. This model of reading where the reader starts at the higher process of comprehension and uses this cognitive process to facilitate the lower process of word recognition and decoding is known as the Top-down model of reading.

### **1.8.2 Conceptual framework**

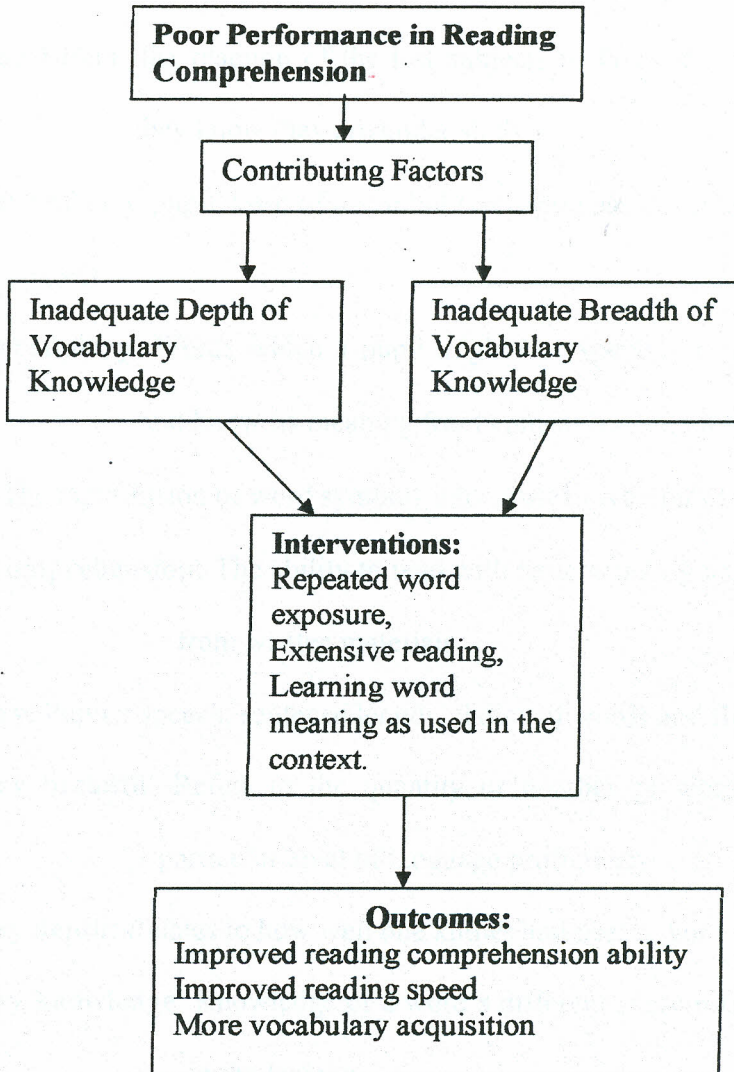
The conceptual framework guiding this study was based on the realization that pupils especially in primary schools are performing poorly on reading comprehension tasks.

According to previous research the contributing factors that lead to this problem are; inadequate breadth and depth of vocabulary knowledge, lexical organization, automaticity of receptive and productive knowledge, the frequency of word occurrence, word register, word collocation, word morphology, word semantics and word polysemy.

This study narrowed down to only depth and breadth of vocabulary knowledge which are the main contributing factors.

To curb this problem, teachers need to practise repeated word exposure to pupils and encourage them to do extensive reading of story books. Pupils should also learn word meanings as used in the context. This will result in improved reading comprehension ability, the pupils reading speed will increase and they will learn more vocabulary

Figure 1.1: The conceptual framework showing the relationship between depth and breadth of vocabulary knowledge and reading comprehension.



Source: Author

### 1.9 Operational Definition of Terms

**Active vocabulary:** Words that an individual recognizes in print and also uses correctly in speech and writing.

**Context:** The use of a word in phrase, clause or a sentence.

**Decoding:** Changing communication signals into messages in reference to word identification rather than to higher units of meaning.

**Hawthorne Effect:** the reaction of the test subjects to favor the research results when they know they are under study.

**Language:** Refers to pupil's use of a symbol (word) to pass a message or to represent an object.

**Passive vocabulary:** Words which a pupil might be expected to recognize in the print and know its meaning from context but which is not active in usage

**Reading:** The rapid fusion of word symbols into consecutive unit of thought.

**Reading comprehension:** The ability to read with understanding and extract information from written materials.

**Vocabulary:** Pupil's speech, sentence length, choice of words and fluency.

**Vocabulary breadth:** Refers to the quantity or number of words pupils know at a particular level of language proficiency

**Vocabulary depth:** Relates to how well one knows and uses a word.

**Vocabulary knowledge:** Knowledge of a word's different sense relations to other words in the lexicon.

**Word knowledge:** Involves knowing a word's form and meaning.

## CHAPTER TWO LITERATURE REVIEW

### 2.0 Introduction

This chapter presents a review of literature related to the proposed study. It will focus on vocabulary knowledge, depth of vocabulary knowledge, receptive versus productive vocabulary, breadth of vocabulary knowledge, direct teaching versus contextual inferencing. Finally it will focus on the role of vocabulary knowledge in reading comprehension.

### 2.1 Vocabulary Knowledge

Haastrup and Henriksen (2000:222) define vocabulary knowledge as mainly involving, “the knowledge of a word’s different sense relations to other words in the lexicon, for instance, paradigmatic (antonymy, synonymy, hyponymy, gradation) and syntagmatic (collocational restrictions)”. According to the Encyclopedia of Education (1971), vocabulary knowledge includes knowledge of specific words and specific meanings, but more fundamentally, includes knowledge of how words acquire and convey meanings. Carroll (1971) argues this more clearly when he states that it is not merely the knowledge of single words and their meanings that is important, but also the knowledge of the multiple meanings of words and their grammatical functions. In discussing the construct of vocabulary knowledge, Chapelle (1998) argued that a trait definition of vocabulary would have four dimensions; (a) vocabulary size, (b) knowledge of word characteristics, which is compatible to the depth dimension of the

vocabulary knowledge (Qian, 1998, 1999); (c) lexicon organization; and (d) fundamental processes of lexical access.

Vocabulary acquisition is a key component to the successful development of communication and literacy skills. Teresia (1997) says that, developing a rich vocabulary is top priority and an ongoing challenge for both L<sub>1</sub> and L<sub>2</sub> instruction. Whereas L<sub>1</sub> pupils arrive at preschool with a command of about 2,000 to 6,000 words, most L<sub>2</sub> pupils begin their academic experience at zero. Once in the academic setting, L<sub>2</sub> pupils are exposed to a great amount of vocabulary in a myriad of subject areas. They are required to use a fair amount of vocabulary throughout the day, acquiring a much larger vocabulary in the target language than students in traditional L<sub>2</sub> learning settings. Due to the intense focus on content teaching in the classroom setting and lack of systematic vocabulary teaching, the vocabulary knowledge is insufficient for quality, age appropriate expressions and literacy development for the pupils.

In addition, this lack of a much larger active and passive vocabulary makes it difficult for pupils to express high level complex thoughts, opinions or concepts. Limited passive vocabularies make it difficult for pupils to comprehend age-appropriate or subject appropriate reading in the English language. Word knowledge varies from total lack of knowledge, to varying degree of partial knowledge, to complete knowledge. Pupils may have implicit or unreportable, rather than explicit knowledge

about the meanings of many words. If the word is totally unfamiliar, the word might possess all the characteristics of a non-word for the pupils.

Two factors play important roles in vocabulary acquisition. They are learning words in meaningful contexts and repeated exposure to the same words. Vocabulary instruction is not the mere teaching of the dictionary meanings of words to pupils. The most critical element in vocabulary learning is meaning. This is because meaningful information is remembered well, whereas meaningless rote learning is not. Words can be made meaningful by encountering them in context while reading or constructing sentences using new words. Teachers and parents can introduce new words, embed them in sentences and make them meaningful. After introducing a new word, the teacher can also encourage the pupils to make up new sentences using the word. Visualizing word families by constructing semantic maps is another way of making words meaningful and improving vocabulary knowledge.

## **2.2 Depth of Vocabulary Knowledge**

A second dimensional facet to vocabulary acquisition, which is key to quality language development, is depth of vocabulary knowledge. Depth of vocabulary deals not only with meaning, but also with morphology, phonology, syntax, sociolinguistic aspects, differences between written and spoken uses, and strategies for approaching unknown words. Depth of vocabulary knowledge has also been used to refer to the quality of lexical knowledge, or how well the pupil knows a word (Read, 1993, 2000). Researchers have noted the complexity and multidimensionality of word

knowledge and have suggested that knowing a word well should mean more than knowing its individual meanings in particular contexts. Various kinds of knowledge are associated with a word that a pupil must know, ranging from knowledge related to its pronunciation, spelling, register, stylistic, and morphological features to knowledge of the words syntactic and semantic relationships with other words in the language (Haastrup & Henriksen, 2000; Nation, 1990; Richards, 1976). These includes collocational meanings and knowledge of antonymy, synonymy, and hyponymy (Chapelle, 1998; Henriksen, 1999; Read, 2000).

Studies investigating the role of vocabulary knowledge in reading have found that while measures of size of vocabulary knowledge are strongly related to the reader's understanding of texts (Laufer, 1997; Qian, 1998, 1999), measures examining aspects of depth of vocabulary knowledge make a stronger contribution to reading performance than those that simply measure a single definition of a word. Qian (1999), for example, found that depth of vocabulary knowledge, conceptualized as receptive knowledge of word meanings and collocations, was not only a better predictor of Second Language(L2) reading comprehension but also made a unique contribution to L2 reading comprehension, over and above the contribution made by size of vocabulary knowledge.

Researchers and theorists have pointed to the fact that vocabulary knowledge is multi-faceted, "a disarmingly simple term for a complex multidimensional phenomenon"

(Harley, 1996). Due to this complexity, classroom teachers must take a more comprehensive approach to vocabulary development in order for pupils to reach a higher quality and quantity of L2 output (Swain, 1996; Sanaoui, 1996). There are three facets of this complexity: (a) receptive versus productive vocabularies, (b) breadth versus depth of vocabularies and (c) direct teaching versus contextual inferencing.

### 2.3 Receptive versus Productive Vocabularies

One seemingly obvious duality of vocabulary knowledge is the receptive – versus productive capacity of the L2 pupil. Receptive vocabulary refers to the words and expressions pupils can understand when reading or hearing them. Productive vocabulary refers to the words and expressions that the pupils can use correctly when producing oral or written language. Both capacities need to be developed in order for pupils to communicate effectively.

Paribakht and Wesche (1997) adapted the Gass (1988) framework for language acquisition to the realm of vocabulary development. The framework specifies the stages of vocabulary acquisition from first exposure to output:

1. **Apperceived input:** is when pupils are made to “notice” the vocabulary and then connect it to past learning.
2. **Comprehended input** is similar to “comprehensible input” but goes a step further in assuring that the student has understood it.
3. **Intake** is the internalization of the new vocabulary

4. **Output** is when the student uses the vocabulary in various situations.

This hierarchical framework clearly delineates the middle processes needed to move pupils from the receptive stage to the productive stage. It is imperative that repeated exposure and manipulation of the vocabulary be available for the student to internalize and in turn produce newly acquired vocabulary.

#### **2.4 Breadth of Vocabulary Knowledge**

In research on vocabulary learning, a distinction has often been made between two dimensions of vocabulary knowledge: depth of knowledge and size, or breadth, of knowledge (Haastrup & Henriksen, 2000; Read, 2000). Breadth of vocabulary knowledge has been taken to refer to the quantity or number of words pupils know at a particular level of language proficiency (Nation, 2001). Researchers have used various types of assessment tools with different formats to measure this dimension of vocabulary knowledge, including tests that require the pupil to identify a synonym for a word in a multiple-choice test, match words with definitions, translate a word into L1, or use checklist. One measure that has been widely used to assess size of vocabulary knowledge in the literature, for example, is Nation's (1990) Vocabulary Level test which has a word meaning matching format and is composed of words representing different word frequency levels, ranging from high-frequency (20,000 word level) to low-frequency words (10,000 word level).

As teachers approach the challenge of teaching depth of vocabulary across the curriculum, it is helpful to look at continua of vocabulary knowledge. Wesche and

Paribakht (1996) make reference to Cronbach's categories of increasing knowledge of words developed in 1942, which are:

1. **Generalization:** being able to define the word
2. **Application:** selecting an appropriate use of the word
3. **Breadth of meaning:** recalling the different meanings of the word
4. **Precision of meaning:** applying the word correctly to all possible situations
5. **Availability:** being able to use the word productively.

In looking at this continuum it becomes clear that too often, pupils are given the message that learning vocabulary only involves the very first level of word knowledge. Teachers need to make a conscious effort to create activities that allow students to develop their vocabulary to the highest level.

A second continuum to which Wesche and Paribakht (1996) make reference is Taylor's categories of knowledge. The categories are not hierarchical, but are key aspects of full vocabulary knowledge. Taylor's categories are as follows: Frequency of occurrence, word register, word collocation, word morphology, word semantics, word polysemy and the relationship of sound to spelling and Knowledge of the equivalent of the word in the mother tongue.

These two continua give a more comprehensive view of vocabulary knowledge than has traditionally been considered by second language instructors. To effectively

develop depth of vocabulary knowledge, we need to use a checklist similar to Taylor's to plan classroom activities that address all lexical components.

### **2.5 Direct Teaching versus Contextual Inferencing**

The emphasis of most teachers' vocabulary instruction entails one main tactic – encouraging pupils to glean meaning from context. “Current pedagogical trends emphasizes incidental or indirect learning by resorting to contextual clues” (Duquette & Painchaud), (1996: 143). There is however growing evidence to suggest, that inferring the meaning of new vocabulary in context is a lengthy and error-prone undertaking which by itself, is an inefficient way of mastering second language vocabulary (Raptis, 1997). This claim is not justified as inferencing is a recommended way of acquiring vocabulary. Incidental learning is one way to acquire lexical knowledge, but it may not be effective and/or inefficient. Hastrup (2000) claims that L2 pupils need to reach a certain “threshold level” before they are able to use effective inferencing procedures.

Guessing from context is not always possible, due to the pupils' limited ability, and also due to varied text construction. Texts range drastically in contextual quality. Due to the reality that pupils will encounter texts which are not context rich, teachers must offer both contextualized and decontextualized vocabulary learning activities. Explicit instructions must also be planned, for developing students' productive skills. Pupils must be pushed to accurately use the target words in context (Swain, 1996). Lyster (1987) has clearly shown the power of various modes of error correction. Without such correction, L2 pupils will reach higher grades and still be producing far

from native like language (Lyster, 1987; Swain, 1996). Unplanned, explicit correcting of lexical errors needs to happen consistently in classroom.

A study conducted in a class of L<sub>2</sub> pupils showed that English language learners (ELLs) who experience slow vocabulary development, are less able to comprehend text at grade level than their English-only peers. The study investigated how L<sub>2</sub> reading is affected by L<sub>2</sub> proficiency as reflected in the pupils' lexical level on the one hand, and by hither general academic ability (including the reading ability in L1) on the other hand. Sixty four English first language (EFL) pupils took part in the study. For each subject, three scores were compared: vocabulary size in L<sub>2</sub>, general academic ability and L<sub>2</sub> reading. The results show that (1) with vocabulary size of fewer than 3000 word families (5000 lexical items), no amount of general ability will make pupils read well; (2) with vocabulary size of 5000 word families (8000 lexical items), reading in L<sub>2</sub> will be satisfactory whatever the general ability; (3) with vocabulary size of 3000-4000 word families (about 5000-6500 lexical items), L<sub>2</sub> reading may or may not be influenced by general ability (Teresia 1997)

## 2.6 Role of Vocabulary Knowledge in Reading Comprehension

Unless some understanding of reading for meaning is achieved, we remain embarrassingly ignorant about questions that appear superficially easy (Neisser, 1967:134-137). Reading with understanding, as opposed to mere pronunciation of words, is definitely an important factor in learning.

Vocabulary knowledge is central in making a proficient reader which is also vital in the process of comprehension. It is therefore very important since failure to develop

vocabulary knowledge skills will lead to poor build up to comprehension of texts and speeches. Chege (1999) and Carroll (1971) have argued that much of the failure of individuals to understand speech or writing beyond an elementary level is due to deficiency in vocabulary knowledge.

A study carried out by Thorndike (1973) shows some close correlation between vocabulary knowledge and reading comprehension. In his study, he divided the population into three groups, 1, 2 and 3 comprising ten year olds, fourteen year olds and end of secondary pupils respectively. He gave tests in reading comprehension, word knowledge and reading speed to each group. From the tests, the median obtained correlated between word knowledge and reading comprehension. The median for population 1 was 0.59, population 2 was 0.62, and for population 3 it was 0.49. These results draw an assumption that word knowledge is an important component for comprehension in reading in English.

It has long been accepted that vocabulary knowledge is instrumental in reading comprehension (Anderson, 2000; Anderson and Freebody, 1979; Read, 2000). First Language reading researchers mentioned above have also noted the importance of both breadth and depth of vocabulary knowledge in reading comprehension. Reading comprehension involves several things including: the ability to recognize words, word knowledge (also referred to as schema) and vocabulary knowledge. Sentences and passages are made up of words and a good stock of word knowledge is required

for comprehending sentences. The relationship between vocabulary knowledge and reading comprehension is indicated by the high degree of correlation between the two. It is as close as the correlation between people height and weight.

A study conducted by Gipe (1979), showed that vocabulary instruction aids greatly in teaching of word meanings. This incorporates using of words in sentences that provide examples of appropriate usage for new words, within the context of familiar events. Other studies conducted by Beck et al. (1972); Mckeown (1982), Stahl (1983) as cited by Chege (1999), strongly and firmly concluded that an improvement in reading comprehension can be attributed to vocabulary instruction.

Vocabulary is tested in comprehension passages. Reading comprehension passages sometimes include vocabulary-in-context questions. These focus on particular words in the passage and ask you to determine their meaning in the passage. Sometimes the words chosen may be either "hard" or "easy" depending on the comprehension passage. In both cases, the broader, more varied, and more accurate your vocabulary knowledge, the better your chances of answering these questions quickly and correctly. Also, the better your vocabulary knowledge, the easier you'll find it to understand the large amount of reading you must do on most standardized tests. Many tests are built around extensive, often complicated passage and one must read and interpret accurately. Even an occasional Mathematics item is made more complicated by the use of challenging vocabulary word. Vocabulary knowledge will make a clear and significant difference in one overall performance. As can be

deduced from the studies cited above, vocabulary knowledge is an integral part in reading comprehension.

## **2.7 Summary**

This chapter has been able to show that it is important for the pupils to acquire word knowledge through intensive reading of text materials. In addition, it has shown that pupils' cannot read with understanding without enough vocabulary knowledge. Among all the studies reviewed in this chapter, none has looked into the relationship between breadth and depth vocabulary of the pupils. In addition the studies have not shown the significant contribution of both breadth and in-depth vocabulary knowledge to the pupils' reading comprehension. The researcher was thus inspired to carry out this study because of lack of information or an elaborate study that shows the added value that is derived from vocabulary being active (in-depth vocabulary knowledge) rather than passive (breadth of vocabulary knowledge) as reflected in the pupils' reading comprehension ability. The present study was to expand on this line of research.

## **CHAPTER THREE RESEARCH DESIGN AND METHODOLOGY**

### **3.0 Introduction**

This chapter describes how the proposed study was conducted. The chapter is organized in the following subsections: research design, variables, location of the study, target population, sampling techniques and sample size, construction of research instruments, pilot study, data collection techniques, of data collection, data analysis, logistical and ethical considerations.

### **3.1 Research Design**

The study used the descriptive survey research design. This design was preferred because it is used to obtain information that describes existing phenomena about an individual's perception, awareness, attitude and behavior. It explores existing status of variables for the purpose of describing a population, too large to observe directly (Mugenda and Mugenda, 1999). The study aimed at describing in correlative terms, the relationship, if any, between pupils' breadth and depth of vocabulary knowledge and reading comprehension in English language. The researcher chose the descriptive survey because she intended to use primary data. Primary data was obtained using a reading comprehension passage and cloze tests as methods of data collection.

### **3.2 Variables**

In this study, there were both dependent and independent variables:

### Dependent variable

There was one dependent variable: **Reading comprehension**, which means, the extraction of information from written language.

### Independent variables

There were two independent variables:

**Breadth of vocabulary knowledge:** size of vocabulary or the number of words, the meaning of which one has at least some superficial knowledge.

**Depth of vocabulary knowledge:** refers to the quality of lexical knowledge, or how well the pupil knows a word (Meara, 1996; Read, 1993, 2000)

### 3.3 Location of the Study

The study was conducted in Miriga Mieru East Division, Meru central, Eastern Province, Kenya. Miriga Mieru East division was chosen as the location of study due to the existing data that depicts poor performance in English language according to the end of second term's English language examination 2007 results. Many public day primary schools scored below 50% which was considered to be below average as compared to their counterparts' private boarding primary schools. Out of 34 schools, only 13 schools scored 50% and above, the rest scored below 50%. The results were as shown in Table 3.1.

Table 3.1: Primary Schools' English Language Performance Results Year- 2007

Public Day Primary Schools	Score %	Public boarding primary schools	Score %
Kathithi	69.16	Fred's Academy	81.46
Munithu	51	Bishop Bessone	64.72
Mulathankari	49.19	Plainsville	78.21
Giaki	50.39	Our lady of Ann	69.87
KarimaG.Ntwiko	47.96	Nuru E.A.P.C	68.23
Mbuuta	48.40	Kambereu Boarding	59.21
Kathirune	48.46	St Ann Academy	60.22
Kirimaitune	50.56	Bishop Lawi Imathiu	63.79
Karirwara	47		
Mukongorone	47		
Chugu	42		
Thuura	46.73		
Runogone	50		
Ngiine	38.74		
Nkabune	36		
Kambiti	39		
Ruriine	38		
Gachua	45.61		
Ndiine	39.24		
Gichunge	43.82		
Kithoka	40.56		
Mbirikene	47.91		
Mbeu	47.06		
Ntani	40.13		
Nthaamiri	35.07		
Ciothirai	33.81		

### 3.4 Target Population

The target population comprised of both girls and boys in standard eight classes. For the purpose of this study, subjects needed to be from selected public day primary schools with similar geographical, social and economic set up. This was a natural control for otherwise confounding factors like different language experiences and

different exposure to English. The study was confined to six low performing public day primary schools in Miriga, Mieru East Division namely, Giaki, Kathirune, Ngiine, Kithoka, Gichunge and Ciothirai primary schools.

Pupils in standard eight were found suitable for this study since the researcher assumed that these subjects had mastered the basic reading skills and learnt how to apply these in any given test at their level.

### **3.5 Sampling Techniques and Sample Size**

#### **3.5.1 Sampling techniques**

A total of six out of 21 primary schools were purposively sampled for the study. Only day public primary schools that had scored below 50 % were sampled for this study. Purposive sampling was then used to select six schools out of 21 poor performing public day, primary schools. The poor performing schools were chosen for this study because the researcher wanted to establish the cause of the problem and give possible solutions after the research. This sample formed about 28% of the total population. The sample size is congruent with the acceptable size in descriptive research. Gay (1983) cited by Mugenda and Mugenda (1999) suggests that for descriptive studies, 10% of accessible population is enough. Ary et al. (1972) also affirms that a sample size of between 10 to 20 percent of the population is adequate for a survey study.

#### **3.5.2 Sample size**

In each school, a total of 36 pupils were selected for the study. Simple random sampling was used to get the 36 pupils in the selected six primary schools. The total

sample population to be tested was 216, that is, 36 pupils from each school in 6 schools.

### **3.6 Research Instruments**

Data was collected by use of three instruments:

- a) Cloze test
- b) A matching word exercise
- c) A Reading comprehension passage

#### **3.6.1 The depth of vocabulary test (Cloze test)**

The cloze test was used for data collection. It was used because it is form of Vocabulary Knowledge Tests (VKT) that intended to contribute to inferences about the test takers depth of receptive English vocabulary knowledge. This test is a technique developed by Taylor (1990) and adapted by Chege (1999) in which words are deleted systematically from a passage, and the reader was expected to replace the deleted word while reading.

In this particular cloze test, the reader is expected to work out which word has been omitted from the surrounding context, and to insert the word which seems most appropriate in each blank space. According to Harrison (1979), the scores a reader obtains on a number of passages will vary according to how difficult each one is to comprehend.

In a cloze test, there are two methods of filling in the gaps: The exact word method and the alternative or acceptable word method. This study used both methods. The correct answer had the following characteristics;

- a) One that exactly replaces the missing word
- b) One that is a synonym to the missing word for example often instead of usually
- c) One that does not change the meaning of a passage and no clues exist in the

context to indicate that the response given is not the correct response. For example, —, the school had just .....’and he could spend his time playing with friend from other schools. The appropriate words could be; closed, opened, begun and started. The best word there would be ‘closed’ because the following clause ‘and he could .....his time playing with friends from other schools, suggests a holiday period. Moreover his brother taking him for a tour of the local hospital is more likely to be during the holidays than during school time.

The scoring in that case would have to give two full marks to ‘closed’ and one mark to ‘opened’ ‘begun’ and ‘started’, and a zero mark for other words. The researcher used pseudo-random deletion of the cloze test.

The researcher used the cloze tests adapted from a study conducted by Chege (1999) to measure breadth of vocabulary of the pupils.

### **3.6.2 Breadth of vocabulary knowledge test**

A matching test was used to collect data on breadth of vocabulary knowledge. In this test a number of concrete words were linked to a number of places and contexts. This would produce evidence that subjects know something about the meaning of a word without necessarily knowing how to use the words in a sentence of their own.

### **3.6.3 Reading comprehension test**

To gather data about pupils' reading comprehension ability, the pupils were presented with a reading passage and asked to read the text for comprehension and try to answer the questions asked in the context of the passage. Ten questions testing strictly only comprehension of the passage (interpretation, translation, saying what it means and/or implies) but without questions directly depending on knowledge of any of other tests. Research suggests that successful inferencing depends heavily on the ability to comprehend the text as a whole and most of the words (Hirsh & Nation, 1992; Laufer, 1988; Liu & Nation, 1985). The reading passage selected for use in this study was adapted from Chege (1999). The passage was designed to elicit the pupils' ability to get the comprehension answers from the context of the passage. Every correct response was given two marks and any other half complete answer given one mark while incomplete and wrong answers were given zero mark.

### **3.7 Pilot Study**

The purpose of the pilot study is to establish validity and reliability of the instruments. The researcher conducted a pilot study at Kambereu Primary school in Giaki sub location, Miriga Mieru East division. The above primary school was not among those designated for the actual data collection. The research instruments were administered on twenty pupils comprising of ten boys and ten girls selected randomly.

#### **3.7.1 Validity**

This study made use of content validity. Content validity is a measure of the degree to which data collected using a particular instrument represents the content that the test is designed to measure. The validity of the instruments commenced at the design stage. The pilot stage also assisted in validating these instruments and in ascertaining whether the methodology and instruments provided the required data.

#### **3.7.2 Reliability**

To maximize on reliability of the research instruments, the researcher tried as much as possible to minimize the random error. Factors that lead to this were adequately addressed. For instance, instructions to the test subjects were clear, and simple language was used. This study made use of the Pearson Product- Moment (PMCC) correlation technique to acquire the correlation coefficient between reading comprehension and breadth of vocabulary test scores and depth of vocabulary

knowledge scores. A correlation coefficient of .50 or above obtained means the instruments were reliable.

### **3.8 Data Collection Techniques**

The researcher visited each of the sampled schools to put into motion the process of administering the instruments. The researcher introduced herself to establish rapport with the school authorities. She also verbally made clear to the test subjects the purpose of the study so as to reduce the Hawthorne effect. Appointments with the school administration for the actual administration of the research instruments and data collection was made before the data collection exercise begun. During the administration of the tests, a matching test was administered first. The students were given thirty five minutes to complete the cloze tests. After a short break of 20 minutes, the cloze test was administered for 1 hour followed by a recess of 30 minutes. The comprehension passage (completed cloze test) was the last to be administered and it was allocated 1 hour and 30 minutes. This is because the researcher wanted to reduce the pupils' likelihood of using the clues from one test to answer the other. Assurance on confidentiality was given at this stage.

### **3.9 Data Analysis**

The data obtained from this study was analyzed quantitatively and qualitatively using basic statistics. The relationship between the depth of vocabulary knowledge and reading comprehension and the relationship between breadth of vocabulary

knowledge and reading comprehension was subjected to Pearson Product- Moment Correlation to obtain the Correlation Co-efficient.

Quantitative data collected through the use of cloze test, matching test and reading comprehension passage, underwent the following data analysis procedures:

- 1) The researcher sorted out the administered tests to remove any incomplete instruments. Only those instruments duly completed by the test taker were accepted.
- 2) The data were compiled, coded then keyed into the SPSS software package. Statistically, the SPSS was used to derive the required tables, cross tabulations and the correlations pertaining to test scores. Data obtained from the matching test, cloze test and reading comprehension passage were also analyzed through inferential statistics.

### **3.10 Logistical and Ethical Consideration**

In pre-field work logistics, the researcher established a work plan, obtained a research permit, piloted the instruments and did the sampling. In the post-field work logistics, the data collected were analyzed and the instruments were kept for future reference.

The ethical considerations included communicating the aims of the investigation to the respondents, being honest and establishing a rapport with the respondents. The researcher did not use undue influence to compel the respondents to participate in the research exercise. The researcher was also responsible for the confidentiality of both the respondents and the data.

## **CHAPTER FOUR**

### **DATA PRESENTATION ANALYSIS AND DISCUSSION**

#### **4.0 Introduction**

This chapter presents and provides the analysis of data generated from the use of a matching test to measure Breadth of vocabulary knowledge (size of vocabulary), cloze test measuring the depth of vocabulary knowledge, and a comprehension passage test to examine the pupils reading comprehension competency. The last part provides a discussion on the findings.

In order to determine the pupils' breadth and depth of vocabulary knowledge, the relationship between depth and breadth of vocabulary knowledge and reading comprehension, a variety of procedures were employed as discussed below.

#### **4.1 Methods of Data Analysis**

##### **4.1.1 Breadth of vocabulary knowledge**

A matching exercise, in which a number of concrete words were to be linked with a number of correct phrases representing places or contexts, was used to evaluate the pupils' breadth of vocabulary knowledge. The words to be matched with correct phrases were on one column and the phrases were jumbled up in another column and pupils were supposed to match them from both columns correctly. The test was administered to 216 primary school pupils in standard eight. The test was marked out of 22, and so the total score for the matching test was 22 marks.

As a first step in the analysis, the pupils' breadth of vocabulary knowledge was determined using total scores for each pupil. The participants scores were divided into six intervals as follows: (0 to 3) representing **fail**, (4 to7) **poor**, (8 to11) **average**, (12 to15) **good**, and (16-19) **very good** and (20-22) **excellent**.

Fail group of pupils were defined as those that had scored below 3marks out of the total 22 marks, the poor performers scored (4-7) marks ,the average performers scored (8-11) marks, the good performers scored (12-15) marks, very good score was attained at (16-19) and the very best pupils scored excellent mark at (20-22). The total number of responses in all target test items was 4,752 (22 target words from 216 participants).

Table4.1 Pupils Scores on Breadth of Vocabulary Knowledge Test.

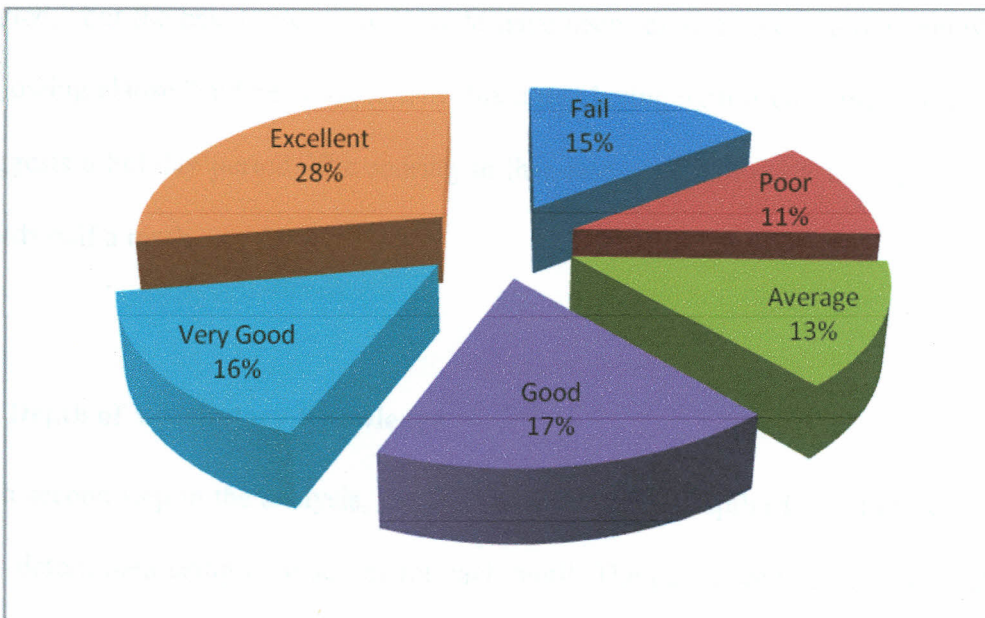
Ratings	Frequency	Percentage %	Cumulative %
Fail	32	14.8	14.8
Poor	23	10.6	25.4
Average	28	13.0	38.4
Good	38	17.6	56.0
Very Good	35	16.2	72.2
Excellent	60	27.8	100
Total	216	100	

The results of this analysis are presented in Table 4.1. As the table shows, out of 216 test subjects, 36 (14.8 %) of the participants failed, 23 (10.6%) were poor, 28 (13%) were average, 38 (17.6 %) performed good , while 35 (16.2%) had a very good mark and only 60 (27.8%) pupils performed excellent.

From the percentages shown above, out of the total number of (216) participants, it seems that the largest group of respondents attained an excellent score of (27.8%) which shows

that out of 216 pupils many of them (60) had an excellent breadth of vocabulary knowledge although this number (27.8%) is still below average of the total sample. As for the other groups a good number of pupils had a fairly good score of vocabulary with 17.6 % ( 38) and 35 (16.2%) pupils at good and very good respectively. The three categories of fail, poor and average attracted many students because the total of the three (38.5%) is slightly higher than their counterparts in good and very good but are slightly lower than the first group that scored excellent. The above “good and very good” groups were the least in number as compared to the other two groups.

Figure 4.1 Percentages of Breadth of Vocabulary Knowledge Scores



The pie chart above (Fig 4.1) further emphasizes the distribution of pupil's scores where the excellent, very good and good categories attracted most of the pupils as compared to the fail, poor and average respectively.

#### 4.1.2 Cloze Test Measuring the Depth of Vocabulary Knowledge

The cloze test was used to establish the pupils' depth of vocabulary knowledge by testing how many words a subject have accurate, active, practical and theoretical knowledge of. The test had 22 blank spaces where the pupils were asked to fill in the blanks with the most appropriate word according to the context. The test was administered to 216 pupils in primary schools in standard eight. It was marked out of 22 with the most correct word receiving a full mark and half a mark for other words. Presumably some blank spaces could be meaningfully filled in by means of several different words .For example "The school had just ....." Appropriate words could have been: "opened, closed, begun, started," but the best correct word would have been 'closed' because the context and the following clause "and he could ..... his time playing with friends from other schools," suggests a holiday period. The scoring in that case gave full mark to 'closed' and other words half a mark.

#### 4.2 Depth of Vocabulary Knowledge

As a second step in the analysis, the degree of success in depth of vocabulary knowledge was determined using total scores for each pupil .The participants scores were classified into the following categories; (0 to 3) **fail** , (4 to7) **poor**, (8 to11) **average**, (12 to15) **Good**, (16-19) **very good** and (20-22) **excellent**.

Fail pupils were defined as those that had scored below 3 marks out of the total 22marks, the poor performers scored (4-7) marks, the average performers scored (8-11)marks, the Good performers scored (12-15)marks, Very good score was attained at (16-19) and the

very best pupils scored Excellent mark at (20-22). The total number of responses to all target test items was 4752 (22target words (216 participants).The results of this analysis are presented in Table 4.2.

Table 4.2 Pupils' Scores on Depth of Vocabulary Knowledge Test

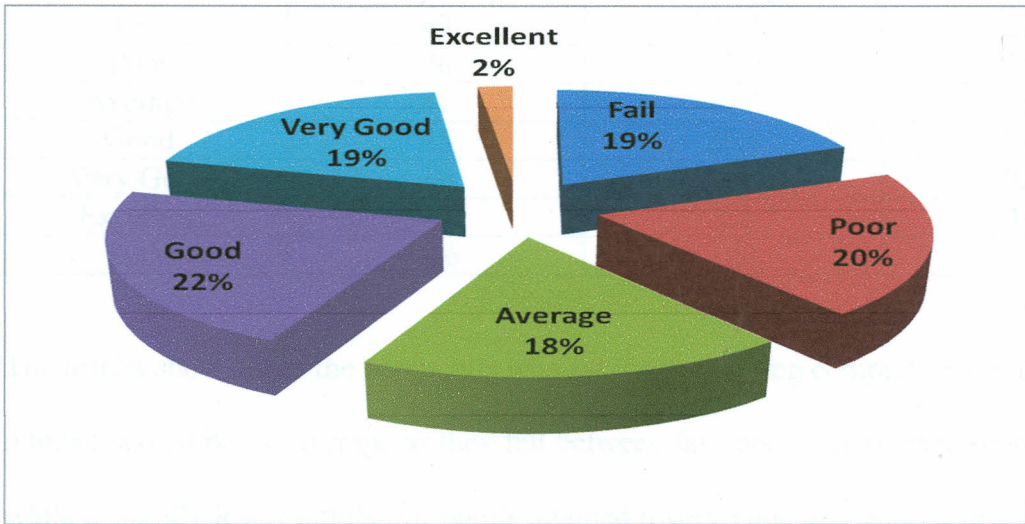
Ratings	Frequency	Percentage	Cumulative %
Fail	42	19.4	19.4
Poor	43	19.9	39.3
Average	39	18.1	57.4
Good	47	21.8	79.2
Very Excellent	40	18.5	97.77
Excellent	5	2.3	100.00
Total	216	100	

From the table 4.2, it can be noted that, out of a total of 216 participants, 42 (19.4%) of the participants attained a fail mark, 43 (19.9%) had a poor mark, 39 (18.1%) were at average score, 47 (21.8%) had good performance while 40 (18.5%) had a very good score and 5 (2.3 %) attained an excellent mark.

From the percentages shown above, out of the total number of (216) participants, it seems that most of the respondents attained a score between fair, poor and average score (19.4%, 19.9%, 18.1%) respectively. This shows that the majority had a below average depth of vocabulary knowledge as compared to the good and very good scores (21.8%, 18.5%), which showed that a slightly lower number had a sizeable depth of vocabulary knowledge. The least number of pupils 5 (2.3%) had an excellent depth of vocabulary knowledge.

Fig. 4.2 below shows clearly that the majority of pupils had a below average depth of vocabulary knowledge for a good number of them attained a fail, poor and average scores.

Figure 4.2 Pupils Scores on Depth of Vocabulary Knowledge Test



### 4.3 Reading Comprehension Test

The reading comprehension test was used to test the pupils reading comprehension ability. This test had eleven questions testing strictly only comprehension of the passage i.e. interpretation, translation, saying what the passage means or implies but without questions directly depending on knowledge of any of the words in the other tests. It was administered to 216 primary school pupils in class eight. The test too was marked out of 22 points where every correct response scored two marks each.

The pupils' scores in reading comprehension test were analyzed. The participants' scores were divided into six intervals according to the range of their scores. Zero to three (0 to 3) represented **fail**, (4 to 7) **poor**, (8 to 11) **average**, (12 to 15) **Good**, (16-19) **Very Good** and (20-22) **Excellent**. Table 4.3 below shows the pupils scores and their percentages.

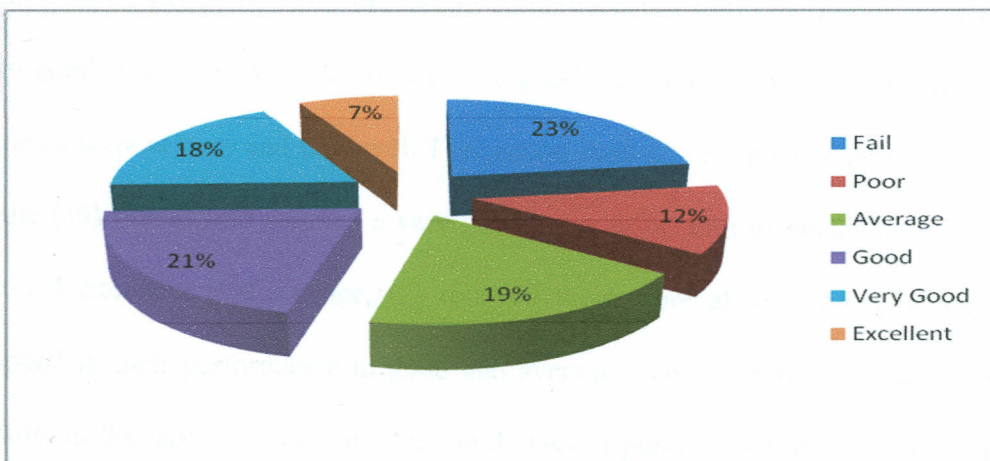
Table 4.3 Pupils Scores on Reading Comprehension Test

Ratings	Frequency	Percentages	Cumulative %
Fail	49	22.7	22.7
Poor	26	12.0	34.7
Average	41	19.0	53.7
Good	45	20.8	74.5
Very Good	39	18.1	92.6
Excellent	16	7.4	100
Total	216	100	

The results show out of the 216 pupils who sat for the reading comprehension test, a large number scored below average as they fell between fair ,poor and average scores (53.7%) while a slightly lower number of pupils attained a very good and good score(38.9%) and the lowest number of pupils had an excellent score (7.4%).

Figure 4.3 below emphasizes further the results show in the table above, and the percentages shows that there was a relatively good performance in reading comprehension.

Figure 4.3 Pupils Scores on Reading Comprehension Test



#### 4.4 Breadth Vs Comprehension Correlation Coefficient

A correlation between the ranks for breadth of vocabulary scores and reading comprehension test scores was carried out to establish the relationship between the two tests results. Data is presented in table 4.4.

Table 4.4 Reading Comprehension and Breadth of Vocabulary Knowledge

	Breadth of VK						Total
Reading comprehension	Fail	Poor	Average	Good	Very good	Excellent	
Fail	30	15	2	2			49
Poor	2	7	12	5			26
Average		1	10	18	10	2	41
Good			4	9	19	13	45
Very Good				4	2	33	39
Excellent					4	2	16
Total	32	23	28	38	35	60	216

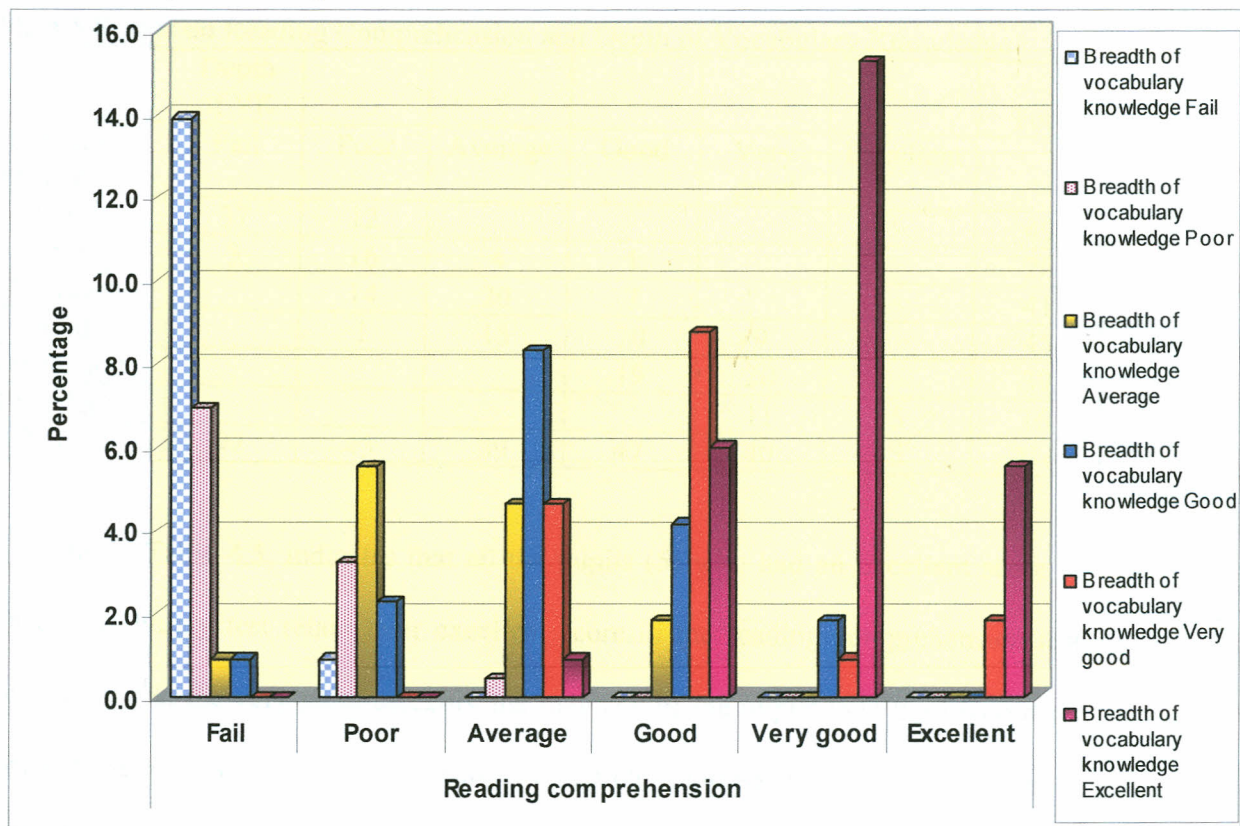
The results in Table 4.4 show that a large number of pupils (60) who were in excellent class in breadth of vocabulary test were distributed in other groups where only (12) retained their excellent score in reading comprehension test, (33) pupils were placed in very good class, (13) went down further to good class and (2) were at average level. No students were at poor and fail level. The second class of very good also indicates that out of the (35) pupils who attained a very good score in breadth of vocabulary test only (4) attained excellent performance, (2) retained their score at very good, while the rest dropped in their performance to good and average levels as shown in the table below. Results in the table revealed that the good class of pupils score shown almost the same trend as those of excellent and very good. Out of the (38) pupils who were in good category, only (4) improved to rating of very good, (9) retained their initial score while

the rest deteriorated to average, poor and fail. The last three categories of average, poor and fail shown the same trend of pupils' deterioration but the fail category was not affected much in terms of performance with almost all (30) pupils retaining their fail score and only (2) improved to poor category.

This implies that despite a high performance in breadth of vocabulary test which saw more than half (N=133) of the target population falling in the rating of good, very good and excellent, as compared to (N=83) pupils who attained a fail, poor and an average rating, there is significant contribution made by breadth of vocabulary knowledge towards improving reading comprehension.

Figure 4.4 further emphasizes the distribution of pupils' scores on reading comprehension and breadth of vocabulary knowledge.

Figure 4.4 Distribution of the Relationship between Reading Comprehension and Breadth of Vocabulary Knowledge.



#### 4.5 Depth of Vocabulary Knowledge Ranks Vs Reading Comprehension Ranks

A correlation coefficient between the ranks for depth of vocabulary scores and reading comprehension test scores was carried out to establish the performance of pupils across the two tests. This information is summarized in table 4.5.

Table 4.5 Scores on Reading Comprehension and Depth of Vocabulary Knowledge

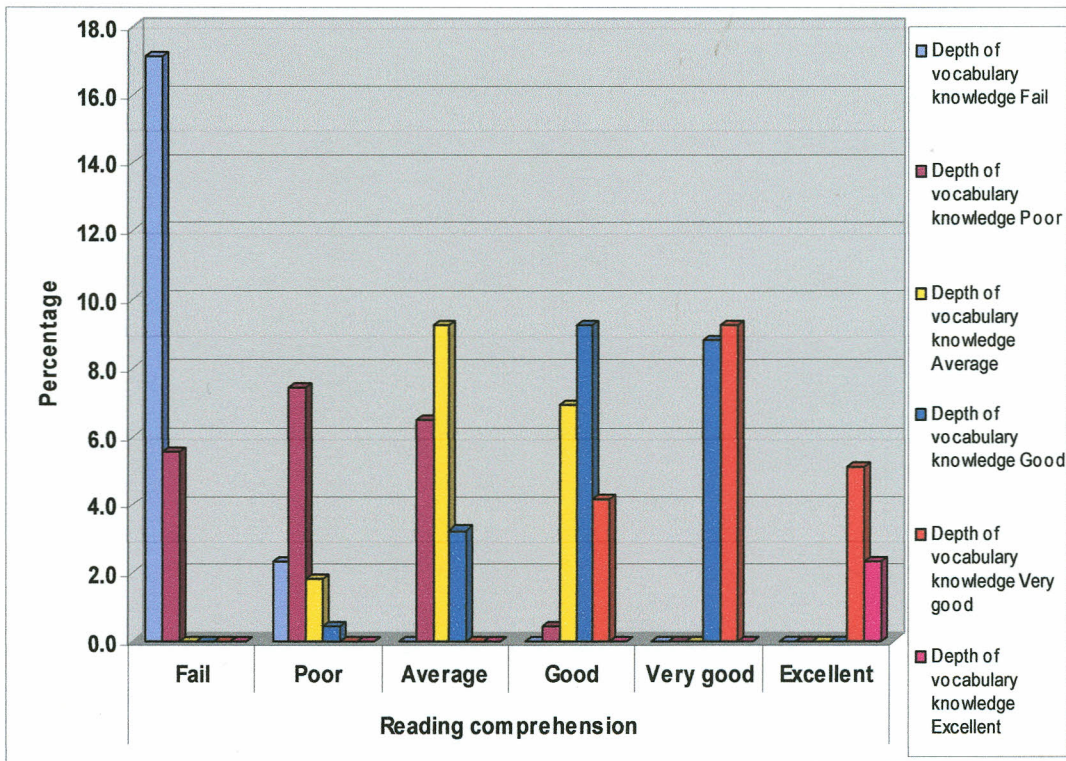
	Depth of VK						Total
Reading comprehension	Fail	Poor	Average	Good	Very good	Excellent	
Fail	37	12					49
Poor	5	16	4	1			26
Average		14	20	7			41
Good		1	15	20	9		45
Very Good				19	20		39
Excellent					11	5	16
Total	42	43	39	47	40	5	216

The results in Table 4.5, indicates that all the pupils (5) who had an excellent score in depth of vocabulary test retain their excellent score in the reading comprehension test score. Looking at the very good category the majority of the pupils (11) improved their scores and was ranked at excellent in reading comprehension test while only 9 attained a good rank. At good rank, the trend was almost the same with the majority of the pupils (19) improving their performance from good in depth of vocabulary to very good in the reading comprehension rank score. The last three categories , average, poor and fail shown the same trend of pupils' improving their performance but the fail class was not affected much in terms of performance with (37) pupils remaining in their fail category and only 5 improved to poor score.

Generally this analysis shows that there is a high contribution being made by depth of vocabulary knowledge towards improving the reading comprehension. This is evident in the two scores rank where an improvement in depth of vocabulary score lead to a noticeable increase in reading comprehension scores.

The bar graph below (Fig4.5) shows that the pupils improved their reading comprehension scores with increase in depth of vocabulary scores for many pupils' scores were inclined towards average, good, very good and excellent.

Figure 4.5 Distribution Showing Relationships between Reading Comprehension and Depth of Vocabulary Knowledge

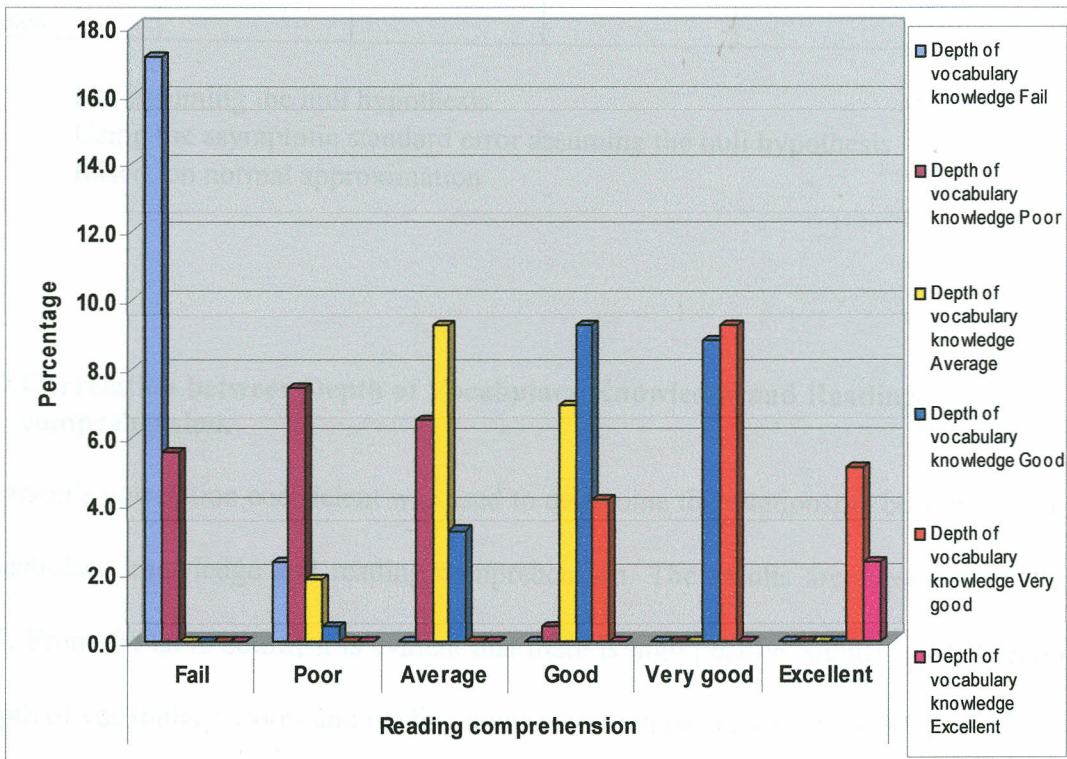


#### 4.6. Correlation between Breadth of Vocabulary Knowledge and English Reading comprehension.

Pearson's correlation coefficient was used to determine the relationship between breadth of vocabulary knowledge and reading comprehension. The data are presented in Table 4.6. From the table below, it is evident that there is high significant correlation between the breadth of vocabulary scores and reading comprehension performance ( $r=.877$ ).

The bar graph below (Fig4.5) shows that the pupils improved their reading comprehension scores with increase in depth of vocabulary scores for many pupils' scores were inclined towards average, good, very good and excellent.

Figure 4.5 Distribution Showing Relationships between Reading Comprehension and Depth of Vocabulary Knowledge



#### 4.6. Correlation between Breadth of Vocabulary Knowledge and English Reading comprehension.

Pearson's correlation coefficient was used to determine the relationship between breadth of vocabulary knowledge and reading comprehension. The data are presented in Table 4.6. From the table below, it is evident that there is high significant correlation between the breadth of vocabulary scores and reading comprehension performance ( $r=.877$ ).

Table 4.6 Correlation between Breadth of Vocabulary Knowledge and Reading Comprehension

		Value	Asymp. Std Error	Approx. T	Approx Sig
Interval by interval	Pearson's r	.877	.015	26.671	.000
N of valid cases	216				

- Not assuming the null hypothesis
- Using the asymptotic standard error assuming the null hypothesis
- Based on normal approximation

#### 4.7 Correlation between Depth of Vocabulary Knowledge and Reading comprehension.

Pearson's correlation coefficient was used to determine the relationship between depth of vocabulary knowledge and reading comprehension. The results are presented in Table 4.7. From the table below, it is evident that there is high positive significant between the depth of vocabulary scores and reading comprehension performance ( $r=.907$ ).

Table 4.7 Correlation between Depth of VK and Reading Comprehension

		Value	Asymp. Std Error	Approx. T	Approx Sig
Interval by interval	Pearson's r	.907	.011	31.409	.000
N of valid cases	216				

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

c Based on normal approximation.

#### 4.8 Discussions

The discussion presented in this section is based on the general objectives of the study, the first of which was to investigate pupil's breadth of vocabulary knowledge levels. The findings of this study indicate that the pupils had a high breadth of vocabulary knowledge as compared to their depth of vocabulary. The literature review in chapter two showed that although both breadth and depth of vocabulary knowledge are important in reading comprehension, depth of vocabulary knowledge plays a significant role. The results of the present study show that a high pupil's score in breadth of vocabulary knowledge did not translate to a high score in reading comprehension. The number of pupils who had high scores in breadth of vocabulary test did not attain such large score in their reading comprehension. From this finding, it can be concluded that the students sampled for the study had a large size of vocabularies.

The second objective was to find out the pupils' depth of vocabulary levels. Results from the study indicate that the pupils had a relatively low score in depth of vocabulary test as compared to the scores in breadth of vocabulary knowledge. A cross tabulation between

depth of vocabulary knowledge showed that a high depth of vocabulary translated to a high score in reading comprehension test scores. A large number of pupils, who had a low score in cloze test, attained a high score in reading comprehension and there was much improvement from cloze test to reading comprehension. A number of possible reasons could be given to explain this low score in depth of vocabulary. Could be that the pupils had a challenge to turn breadth of vocabulary into depth of vocabulary.

These results affirms the findings from other studies that have investigated the role of vocabulary knowledge in reading which have found that while measures of size of vocabulary knowledge are strongly related to the reader's understanding of texts (Laufer, 1997; Qian, 1998, 1999), measures examining aspects of depth of vocabulary knowledge make a stronger contribution to reading comprehension, than those that simply measure a single definition of a word. Qian (1999), found out that depth of vocabulary knowledge, conceptualized as receptive knowledge of word meanings and collocations, was not only a better predictor of L<sub>2</sub> reading comprehension but also made a unique contribution to L<sub>2</sub> reading comprehension, over and above the contribution made by size of vocabulary knowledge.

The third objective was to find out the relationship between breadth of vocabulary knowledge and reading comprehension. The results from the study indicate that there is a significant relationship between breadth of vocabulary knowledge and reading comprehension .Correlation at test at (.877) and significance at (.000).

The fourth objective was to find out the relationship between depth of vocabulary knowledge and reading comprehension. The results of the study showed a high significant relationship between the two test scores at .907 which is quite high as compared to that of breadth of vocabulary knowledge and reading comprehension. This would mean that for text writing the pupils use depth of vocabulary (active vocabulary) and that the counterpart to reading comprehension would appear to be text writing (use of active vocabulary).

The analysis indicate that, both depth and breadth of vocabulary knowledge are key elements in improving reading comprehension ability but breadth of vocabulary knowledge had a low significance on reading comprehension as compared to depth of vocabulary that had a higher contribution. Finally the extent to which the respondents were able to infer word meaning successfully from the context was attributed much to their depth of vocabulary knowledge than to their breadth of vocabulary knowledge.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

The data obtained from this study were analyzed and discussed in chapter four. Chapter five provides a general summary of the study, its findings, conclusion, implications of findings and recommendations. Suggestions for further research are also made.

#### **5.1 Summary**

The study focused on finding pupils' depth and breadth of vocabulary knowledge and their relationship with English language reading comprehension. The study came up with several findings, which are summarized below.

#### **5.2 Implications of the Findings**

##### **5.2.1 Findings concerning breadth of vocabulary knowledge**

The analyses of the scores obtained from the Breadth of vocabulary test (matching test) indicates that a large number of pupils performance was above average with the majority of them attaining scores between above good and excellent  $N=133$ . A correlation conducted on the breadth of vocabulary knowledge and reading comprehension showed that a high score on breadth of vocabulary did not translate to a high score in reading comprehension test. The symmetric measures showed that there exists a significant relationship between the two.

##### **5.2.2 Finding concerning depth of vocabulary knowledge**

Further analysis on the cloze test investigated the depth of vocabulary (active vocabulary) of the pupils studied. Data revealed that the majority of the pupils were at the class

between fail to average N=124 (out of 216). This means that the majority of the pupils had a below average depth of vocabulary knowledge while the others N=87 (good, very good class) had a sizeable active vocabulary. The least number of pupils ( N=5) had an excellent active vocabulary. This shows that generally the pupils' active vocabulary is low as compared to their breadth (passive vocabulary). A correlation test between depth of vocabulary scores and the reading comprehension scores confirmed that there is a significant positive relationship between the two scores. The symmetric measures showed a correlation coefficient of .907 which is high.

### **5.2.3 Findings concerning reading comprehension using a reading comprehension passage.**

The analysis of the scores obtained using the reading comprehension test revealed that the reading comprehension ability of pupils is generally low. A large number of pupils attained a score between fail to average ( N=116 out of 216). This would mean that apart from depth and breadth of vocabulary knowledge there could be other variables and learner characteristic that could be affecting the pupils performance. These may include, reading strategies of pupils, aptitude, the listening skills, writing skills and their pronunciations among others.

### **5.2.4 Findings on the relationship between breadth of vocabulary knowledge and reading comprehension of pupils**

Pearson's Product Moment Correlation Coefficient  $r$ . was used to determine the correlations between breadth of vocabulary (passive vocabulary) and reading

comprehension .The correlation coefficient for reading comprehension and breadth of vocabulary was .877.From the data obtained, there appears to be a positive relationship between the two variables. Although there was a positive relationship between two variables, some pupils who performed highly in the breadth of vocabulary test did not perform well in the reading comprehension as would have been expected. There are possible explanations as to why this was the case.

First the pupils might have had a large number of word knowledge which was to assist them in speaking but not in comprehension.

Second the pupils might have had a good number of passive vocabularies which was not translated into active vocabulary which could have aided in reading comprehension.

Thirdly, the pupils might not have been well prepared to take the comprehension test which led to failure.

Lastly, the breadth of vocabulary test could have been performed well out of guess work since the pupils were only required to match the words with the correct phrase in two different columns.

#### **5.2.5 Findings concerning relationship between depth of vocabulary and reading comprehension**

The correlation between depth of vocabulary knowledge and reading comprehension was also done and the correlation coefficient  $r = .906$ . This shows that the two scores, that is, depth of vocabulary knowledge and reading comprehension correlate significantly with one another. Various reasons could have contributed to this; first, the students who performed well in depth of vocabulary test did also perform well in the reading comprehension test apart from a few who did not perform well. There was evident

improvement of some students who failed in depth of vocabulary test and ended up performing better in reading comprehension test.

Secondly, it is possible that there is some mutual relationship between skills in English language where one skill builds on the other. Lastly, knowledge of depth vocabulary would show evidence of reading comprehension, because coming up with the right word in the context requires that the pupils link the ‘time for playing with friends from other schools’ with the holiday period and therefore ‘closed’ is the better word than ‘began’ or ‘opened’. The present study supports findings from previous research which has concluded that L2 learners need good vocabulary knowledge to be able to successfully derive word meanings from context (Coady et al., 1993; Haynes & Baker, 1993; Laufer, 1997; Nation, 1990, 2001).

### 5.3 Conclusions

From the discussions in chapter four and the summary given in section five, of this chapter, the following conclusions were made:

- i. All scores in depth and breadth of vocabulary knowledge have been statistically significant, which suggests that using any combination of two variables depth and breadth of vocabulary knowledge and reading comprehension will yield better results than using one of them alone.

ii.

- iii. Although there appears to be a fairly strong correlation between depth and breadth of vocabulary knowledge ( $r=.807$ ) and reading comprehension, it is evident that the depth and breadth of vocabulary knowledge test tapped different aspects of vocabulary knowledge.
- iv. Summarizing the answers for the research questions, the researcher found out that with a sample of L<sub>2</sub> background, scores on depth of vocabulary knowledge, breadth of vocabulary knowledge and reading comprehension are highly intercorrelated.
- v. In determining the values of depth and breadth of vocabulary knowledge in predicting performance on reading comprehension, the results obtained from this present study correlate with those from Qian (1998;1999). We can thus assume that vocabulary is a very important factor in reading comprehension assessment.
- vi. Since scores of depth and breadth of vocabulary knowledge are capable of explaining a considerable portion of the variance of reading comprehension scores, we can now suggest that well designed measures of depth of vocabulary knowledge receive due recognition as useful predictors of reading comprehension.
- vii. Because the vocabulary depth and size measures are equally valid in predictive sense, using them in combination results in a greater ability to predict reading comprehension than using either one alone. This argument

is supported by a high correlation coefficient between the three variables under study.

- viii. The results have showed that the ability to comprehend correlates more highly with depth of VK than with breadth of VK.

#### **5.4 Recommendations**

Based on the findings of the study, the following are the recommendations:

- i. It must be reiterated that although the study presented here compared the predictive values of vocabulary size and depth of vocabulary measures, the depth of vocabulary knowledge covers only a few components of vocabulary knowledge, synonymy, polysemy, and collocation. Recalling that the dimension of depth of vocabulary knowledge includes, phonemic, graphemic, morphemic, syntactic, semantic, collocational and phraseological features, it is obvious that the concept of vocabulary knowledge was only partially operationalized in the study and therefore caution should be exercised in generalizing the findings from this study.
- ii. In exploring the role of vocabulary knowledge in reading comprehension, both dimensions deserve equal attention .For this reason measures capable of assessing depth of vocabulary knowledge effectively are urgently needed in our Kenyan English examinations.
- iii. From the findings of this study and the findings of Qian (1998),it is evident that certain aspects of depth of vocabulary knowledge play an

integral role in reading comprehension and that a depth of vocabulary knowledge test (Read 1993,1995), designed to measure some paradigmatic and syntagmatic aspects of vocabulary knowledge has shown its capability of being a reliable measure. The Kenya National Examination Council (KNEC) should adopt such kind of test instrument in testing the pupils' depth of vocabulary knowledge.

- iv. Teachers should note that both breadth and depth of vocabulary knowledge are important in reading comprehension .This implies that both dimensions of vocabulary knowledge should be emphasized while teaching other English language skills and should be examined as language skills if English language as the language across the curriculum is to be effective.
- v. Teachers should also lay emphasis on enhancing pupils' vocabulary acquisition since vocabulary is acquired in an incremental fashion. So words acquired at the beginning of the learning process are likely to have much more depth than words learnt more recently. The teachers should ensure that there is repeated word exposure to pupil so that they do not forget the words learnt earlier and the recent learnt ones.
- vi. Teachers should encourage learners to lay emphasize in acquiring more words. The results here have shown that the more words a learner knows, the more likely that he or she will have a greater depth of knowledge for those words.

- vii. Although having a larger vocabulary size will give the learner a larger database from which to guess the meaning of newly learned words, having deeper vocabulary knowledge will likely improve the results of guess work. Presumably these two dimensions operate interactively and interdependently.
- viii. Schools should strive to equip libraries with relevant reading materials. Reading leads to enhancement of language skills, especially in regards to breadth and depth of vocabulary knowledge. The teachers should encourage the pupils to read as many story books as possible so that they can have a rich encounter with as many words as possible and learn their correct usage and finally improve their reading comprehension ability
- ix. To improve on both breadth and depth of vocabulary knowledge, teachers should ensure that after teaching any new vocabulary or words, there should be a follow up exercise asking the pupils to construct sentences using the newly learnt words. This enhances retention.
- x. Teachers should encourage learners to learn word meaning in their context rather than mere rote learning of words. When word meaning is learnt from the context, the pupils will improve on their reading comprehension ability because words have been learnt through a meaningful approach.
- xi. Writing skills like letter writing and composition writing should be encouraged among pupils because there is the use of vocabulary and different words to spice up the work. Through letter writing there is use of

imaginary situations and creative writing which will help the pupils to put in use the already learnt vocabularies which will in turn improve on reading comprehension and mastery of old and new learnt words.

### 5.5 Further Research

- i. Since the depth of vocabulary knowledge represents only a partially dimension of depth of vocabulary knowledge, measures covering other components, like morpho-syntactic properties should be developed for fuller assessment of the dimension.
- ii. To take this research a step further, it is also desirable to evaluate the feasibility of developing operational measures that could assess the dimensions of lexical organization and automaticity so that the whole construct of vocabulary knowledge can be more fully and accurately assessed and understood.
- iii. The study focused on the relationship between depth and breadth of vocabulary knowledge in a rural set up where many pupils do not have many opportunities to communicate in English. It would be interesting to find out whether a similar study in an urban environment would reveal similar results.
- iv. This study has investigated the relationship between depth and breadth of vocabulary knowledge and reading comprehension in English language. It is important that other studies are carried out to establish the relationship between depth and breadth of vocabulary knowledge and reading

comprehension in other subjects like Science, Mathematics, and Biology among others.

- v. Further research is needed to investigate the relationship between the different components of language proficiency and lexical inferencing; for example, the role of size of vocabulary knowledge versus depth of vocabulary knowledge in deriving word meaning from context.
- vi. Size and depth of vocabulary knowledge have been shown to differentially affect L2 reading comprehension (Qian, 1999). It would be useful to find out if these variables also differ in their contributions to lexical inferencing strategy use and success.
- vii. Further research is also needed to address the role of other dimensions of linguistic knowledge, such as grammatical knowledge, morphological knowledge, and discourse knowledge, in L2 lexical inferencing.

It is hoped that research in the suggested areas will, among others, ultimately lead to a deeper understanding of both depth and breadth of vocabulary knowledge, reading comprehension and English language learning in general.

## REFERENCES

- Ary, D. Jacobs L.C., and Razaviah, P (1972). *Introduction to Research in, Education*. New York: Holt, Rhinehart and Wilson.
- Anderson, J.C. (2000). *Assessing reading*. Cambridge: Cambridge University Press.
- Anderson, R.C. & Pearson, P.D. (1984). A schema- theoretic view of basic processes in reading comprehension. In P.D.Pearson (Ed.), *Handbook of reading research*. New York: Longman.
- Anderson ,R.C. , and Freebody, P. (1979) *Vocabulary Knowledge* (Tech. re; .No.136) Urbana: University of Illinois, Center for the study of reading.
- Beck, I.L., Perfetti, C. A., and Mckeown, M.C. (1972) "Effect of long-term vocabulary Instruction on lexical access and reading comprehension. *Journal of Education Psychology* 74, 506-521.
- Carroll, B. (1971) *Learning from Verbal Discourse and Educational Media: A Review of Literature*. Princeton, N.J.: Educational Testing Service.
- Chapelle, C. (1998). Are C-tests valid measures for L2 vocabulary research?*Second Language Research*, 10, 157\_187.
- Chege, E. (1999) *Reading comprehension and its relationship with academic Performance among standard eight pupils in MeruMachakos*. Unpublished Master's thesis, Nairobi: Kenyatta University.
- Dalton, P. Gliessman , D. ;Guthrie, H.; and Rees, G (1966) *The Effects Of Reading Improvement on Academic Achievement* journal of reading. New Jersey: Prentice-Hall, Inc.
- Duquette, L., & Painchaud, G. (1996). A comparison of Vocabulary acquisition in audio and video contexts.*The Canadian Modern Language Review*, 53(1).

- de Bot, K., Paribakht, T.S., & Wesche, M.B. (1996). Toward a lexical processing model for the study of second language vocabulary acquisition: Evidence from ESL reading. *Studies of Second Language Acquisition*, 19, 309-329.
- Gass, S. (1988). Integrating research areas: A framework for second language studies. *Applied Linguistics*, 9 (2).
- Gipe, J. (1979) Investigating techniques for teaching words meaning. *Reading Research Quarterly*, XIV, 4, 624-643.
- Goodman, K.S. (1970) "Behind the eye: What happens in reading." In reading process and program. Urbana, Illinois: National council of Teachers of English.
- Goodman, K.S. (1967) "Reading: A psycholinguistics guessing game." *Journal of reading specialists*. 6, 126-135.
- Haastrup, K., & Henriksen, B. (2000). Vocabulary acquisition: Acquiring depth of knowledge through network building. *International Journal of Applied Linguistics*, 10, 221-240.
- Harley, B. (1996). Introduction: Vocabulary learning and teaching in a second Language. *The Canadian Modern Language Review*, 53 (1), 3-12.
- Lyster, R. (1997). Corrective feedback and pupil uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19, 37-66.
- Harrison, C. (1979) Assessing the readability of school tests .In E. Lunzer, and K, Gardner (Eds.) *The effective use of reading*. London .Heinemann Educational books for schools council.
- Henriksen ; B. (1999). Three dimensions of vocabulary development. *Studies in Second Language Acquisition*, 21, 303-317.
- Hirsh, D., & Nation, P. (1992). What vocabulary size is needed to read

unsimplified texts for pleasure? *Reading in a Foreign Language*, 8, 689-696.

Jayanthi, R., and Vimala, V. (1991) *Reading Ability in C.* Indian Journal of Applied Psychology vol27 (1), 36-43 in *Psychological Abstracts* Vol No 6, 16872.

Laufer, B. (1988). What percentage of text-lexis is essential for comprehension In C. Lauren & M. Nordmann (Eds.), *Special language: From humans thinking to thinking machines* (pp. 316-323). Clevedon, UK: Multilingual Matters.

Laufer, B. (1992). How much lexis is necessary for reading comprehension? In H. Béjoint & P. Arnaud (Eds.), *Vocabulary and applied linguistics* (pp.126-132). London: MacMillan.

Laufer, B. (1996). The lexical threshold of second language reading comprehension: What it is and how it relates to L1 reading ability. In K. Sajavaara & C. Fairweather (Eds.), *Approaches to second language acquisition* (pp.55\_62). Jyvaskyla, Finland: University of Jyvaskyla.

Laufer, B. (1997). What's in a word that makes it hard or easy: Some intralexical factors that affect the learning of words. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 140\_180).Cambridge: Cambridge University Press.

Liu, N., & Nation, I.S.P. (1985). Factors affecting guessing vocabulary in context. *RELC Journal*, 16, 33\_42. Meara, P. (1996). The dimensions of lexical competence. In G. Brown, K.Malmkjaer, & J. Williams (Eds.), *Performance and competence in second language acquisition* (pp. 35\_53). Cambridge: Cambridge University Press.

Lyster, R. (1987). Speaking immersion. *The Canadian Modern Language Review*, 43 (4), 701-717.

Meara, P. (1996). The dimensions of lexical competence. In G. Brown, K.Malmkjaer, & J. Williams (Eds.), *Performance and competence in second language acquisition* .Cambridge: Cambridge University Press.

McCarthy, M. (1990) (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 140-180). Cambridge: Cambridge University Press

- McKeown, M. G., Beck, I.L., Omanson, R.C., and Perfetti, C.A. (1983) "The effect of longterm vocabulary instruction on reading comprehension :A replication. *Journal of Reading Behaviour*, 15,3-18
- Morrison, L. (1996). Talking about words: A study of French as a Second Language . Lexical inferencing procedures. *Canadian Modern Language Review*, 53, 41-75.
- Mugenda, O.M., and Mugenda, A. (1999), *Research Methods: Qualitative Approaches*, Nairobi: Acts Press.
- Nation, I.S.P. (1990). *Teaching and learning vocabulary*. New York: Newbury House.
- Nation, I.S.P. (1993). Vocabulary size, growth, and use. In R. Schreuder & B. Weltens (Eds.), *The bilingual lexicon*. Amsterdam: John Benjamins.
- Nation, I.S.P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Neisser, U. (1967) *Cognitive Psychology*. New York: Appleton-Century -Crofts.
- Paribakht, T.S., & Wesche, M. (1997). Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition: A rationale for pedagogy* (pp. 174\_199). New York: Cambridge University Press.
- Qian, D. (1998). Depth of vocabulary knowledge: Assessing its role in adults. reading comprehension in English as a second language. Unpublished doctoral dissertation, OISE/University of Toronto.
- Qian, D. (1999). Assessing the roles of depth and breadth of vocabulary knowledge in reading comprehension. *The Canadian Modern Language Review*, 56, 282\_308.
- Raptis, H. (1997). Is second language reading vocabulary best learned by reading? *The Canadian Modern Language Review*, 53 (3), 566-580.
- Read, J. (1993). The development of a new measure of L2 vocabulary knowledge. *Language Testing*, 10, 355-371.

- Read, J. (2000). *Assessing vocabulary*. Cambridge: Cambridge University Press.
- Richards, J.C. (1976). *The role of vocabulary learning*. *TESOL Quarterly*, 10, 77-89.
- Smith, F. (1971) *Understanding reading*. New York: Holt, Rinehart and Winston.
- Sanaoui, R. (1996). Processes of vocabulary instruction in 10 French as second language classrooms. *The Canadian Modern Language Review*, 52 (2) 179-199.
- Swain, M. (1996). Integrating language and content in immersion classrooms: Research prospective. *The Canadian Modern Language Review*, 52 (4), 529-548.
- Swain, M. & Carroll, S. (1987). The immersion observation study. In B. Harley, P.
- Allen, J. Cummins, & M. Swain (Eds.) *The development of bilingual proficiency final report* (Vol. 2, pp. 190-263). Toronto: Modern Language Centre, Ontario Institute for Studies in Education.
- Taylor, L. (1990). *Teaching and learning vocabulary* New York: Prentice-Hall.
- Teresia, A.B. The bridge from research to practice: *Developing Vocabulary Knowledge in the Immersion Classroom*, Normandale French Immersion School, Edina, MN from (<http://www.carla.umn.edu/immersion/acie/vol1/Nov1997.pdf>)
- Thorndike, L. (1973) *Reading comprehension education in fifteen countries: International studies in evaluation, III*. Stockholm: Almqvist and Wiksell.
- Wesche, M., & Paribakht, T.S. (1996). Assessing second language vocabulary knowledge: Depth versus breadth. *The Canadian Modern Language Review*, 53, 13-45:12:26 PM

## APPENDIX A

**Breadth –Passive Vocabulary Test Time I Hour****Match the Words in Column A with Their Meaning in Column B**

	<i>Words used in the passage A</i>		<i>Phrases to which they are matched B</i>
1	Begun	A	Related to age
2	Spend	B	Coming from outside going to
3	Wanted	C	Utilize or make use of
4	Elder	D	Making up your mind
5	Visit	E	First part of an activity or event
6	Decision	F	With a kind of feeling /excitement
7	Happily	G	A kind of liking

**Match the Words in A with Their Meaning in B**

	<b>Words used in the passage A</b>		<b>Phrases to which they are matched B</b>
1	Departments	B	Serious
2	Surgery	C	Become healthy again/Given medicine
3	Medical	D	Places for special treatment
4	Diseases	E	Showed unhappiness
5	Severe	F	Lacking of good health
6	Treated	G	Sick people
7	Complained	H	Help from a doctor

**Match the Words in A with Their Meaning in B***Words used in the passage B*

- 1 Diarrhoea
  - 2 Quickly
  - 3 Prescribed
  - 4 Instructions
  - 5 Take
  - 6 Stir
  - 7 Tightly
- 

*Phrases to which they are matched B*

- A Writing down what medicine to use
  - B For mixing properly
  - C Drink the medicine
  - D Close completely
  - E Telling someone what to do
  - F Lack of Good Health
  - G Not losing or wasting any time
-

## APPENDIX B

## A VISIT TO THE HOSPITAL (Cloze passage)

## TIME: 1hour Depth -Active Vocabulary Test

## Fill in the Blank Spaces with the Most Appropriate Words

Gobi had every reason to be happy in April last year. The school holidays had just \_\_\_\_\_, and he could \_\_\_\_\_ his time playing with friends from other schools. He was also waiting anxiously for the day when his \_\_\_\_\_ brother, who worked in a local hospital, would take \_\_\_\_\_ on a visit there. As a young boy Gobi had often said he \_\_\_\_\_ to become a doctor. The \_\_\_\_\_ to the hospital would help him make a \_\_\_\_\_.

At last the day came, and Gobi set off \_\_\_\_\_ on the visit. His brother took him first to the out-patients section. Most \_\_\_\_\_, Gobi learned, were received at the hospital here. Then they might be referred to other \_\_\_\_\_. Some might be sent to the operating theatre for \_\_\_\_\_, while others could be seen by physicians and given \_\_\_\_\_ attention. Patients came with all sorts of complaints and \_\_\_\_\_. Some complained of \_\_\_\_\_ pains in the stomach. Many of them were quickly \_\_\_\_\_ and discharged.

A mother \_\_\_\_\_ that her child had diarrhoea and vomiting. The doctor told her that \_\_\_\_\_ could be serious. If the child was not treated \_\_\_\_\_, it could die from loss of liquid. However, the doctor \_\_\_\_\_ some medicine for the baby. He gave \_\_\_\_\_ about how many teaspoonfuls the child was to \_\_\_\_\_ each day. The mother was further advised to \_\_\_\_\_ the medicine well before use and to replace the cork \_\_\_\_\_ in the bottle.

**APPENDIX C****Reading Comprehension Test****TIME: 1.30MINUTES****A VISIT TO THE HOSPITAL**

**Instructions: Read the Following Comprehension Passage Carefully and Answer the Questions Below.**

Gobi had every reason to be happy in April last year. The school holidays had just begun, and he could spend his time playing with friends from other schools. He was also waiting anxiously for the day when his elder brother who worked in a local hospital, would take him on a visit there. As a young boy Gobi had often said he wanted to become a doctor. The visit to the hospital would help him to make a decision.

At last the day came, and Gobi set off happily on the visit. His brother took him first to the out-patients' section. Most patients, Gobi learned, were first received at the hospital here. Then they might be referred to other departments. Some might be sent to the operating theatre for surgery, while others could be seen by physicians and given medical attention. Patients came with all sorts of complaints and diseases. Some complained of severe pains in the stomach. Many of them were quickly treated and discharged.

A mother complained that her child had diarrhoea and vomiting. The doctor told her that diarrhoea could be serious. If the child was not treated quickly, it could die from loss of liquid. However, the doctor prescribed some medicine for the baby. He gave instructions about how many teaspoonfuls the child was to take each day. The mother was further advised to stir the medicine well before use and to replace the cork tightly in the bottle.

## Questions

1. How was Gobi hoping to use his time over the holiday?
2. What things did Gobi learn in the hospital?
3. What are the two reasons that made Gobi want to go to the hospital?
5. Of all the things Gobi saw in the hospital, which ones may have helped him decide to become a doctor?
6. What did Gobi see in the hospital?
7. Where were patients taken after they arrived in the hospital?
8. Why is diarrhoea a bad disease?

6. What did Gobi see in the hospital?
7. Where were patients taken after they arrived in the hospital?
8. Why is diarrhoea a bad disease?
9. Did all patients first have to go to the out-patients section?
10. Why was Gobi waiting for his brother?
11. What help did the doctors give to patients in the hospital?
12. Why was Gobi happy in April last year?

**KENYATTA UNIVERSITY LIBRARY**