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**Evaluation of the Vocabulary Element of the Reading Section in the 11th &
12th English Textbooks for Palestine**

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Dedication

To my family who taught me that miracles are possible.

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Abstract

Evaluation of the Vocabulary Element of the Reading Section in the 11th & 12th English Textbooks for Palestine

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The aim of this study is to evaluate the word lists (glossaries) in the English textbooks for Palestine (11th & 12th grades). The word lists in the 11th & 12th English textbooks were evaluated in terms of the criteria for vocabulary selection which were frequency, coverage and gradation. To determine the levels of frequency of the words, the General Service List, Thorndike & Lorge's frequency counts and the Academic Word List were used. As for coverage, the word coverage list in the Longman Dictionary was used. The analysis explored the level of difficulty in word selection, the gradation between 11th & 12th texts, the grammatical categories and the word density. In order to know the efficiency of the teachers' definitions of new word, Grice's maxims were used. Finally, Nation's Vocabulary Levels Test was used to evaluate the student's achievement. The results have shown that the textbooks provide a sufficient portion of words that have high frequency and high coverage. However, students would face difficulty in handling academic texts. As for gradation, it moves progressively in the first and the second thousand levels. However, it goes regressively in the third, fourth and fifth thousand levels. In terms of lexical density, the findings have shown that the word density in reality exceeds the norm. So this adds to the difficulty to text comprehension. The findings have shown that teachers' definitions of new words are in line with the maxims of quantity, quality and relation but they aren't clear or brief. Concerning the students' scores on Vocabulary Levels Test, the results have revealed that students' achievement reflects the vocabulary of

the textbooks. Finally, the target textbooks represent a natural sample of language in the ratio of nouns, adjectives, adverbs and prepositions in addition to the ratio of verbs in the 12th textbook. However, the results have shown that the ratio of verbs in the 11th textbook exceeds the ratio in the standard dictionary. The study ends with pedagogical implications for EFL teachers and areas for further research.

Chapter One

The Problem

1.1 Introduction

Vocabulary has been an important issue in the field of applied linguistics for many years. A vocabulary item is the smallest unit learners need to know if they want to use the language (Laufer, 1987). Vocabulary is an important aspect of second language acquisition. Second language learners are unable to understand and communicate in the target language if they know nothing about its lexis (Meara, 1996). Wilkins (1972) raised the importance of vocabulary by comparing it to grammar and pronunciation when he mentioned that without grammar, very little can be conveyed but without vocabulary, nothing can be conveyed. This is also echoed by Laufer (1997) who said that solid vocabulary is necessary in every stage of language learning, as is now being openly stated by some second language acquisition researchers. In non-fiction texts vocabulary can be divided into high frequency vocabulary, sub-technical or academic vocabulary, technical vocabulary, and low frequency vocabulary (Nation, 1990).

Vocabulary deserves conscious and systematic efforts on the part of both learners and teachers. English like any other human language contains an enormous number of vocabulary items which are impossible to be taught in the limited time available to second language teachers (Nation, 2008 & Dolby & Resnikoff, 1967). Therefore, selection is needed. Literature on vocabulary selection discusses various approaches and criteria for vocabulary selection in materials such as frequency, availability, familiarity, coverage, gradation and meaning (Salter, 2002). As for frequency, Davies & Face (2006) mentioned that certainly one of the primary goals in developing materials for second language learners is to create materials that reflect

vocabulary and grammar which learners are likely to encounter in the real world. The 2,000 most frequent words are the indispensable basis for all our uses of English (Kyongho, 1989). Those words have the capacity of covering the meaning of other words because all the explanations in the dictionary are covered by this set of words. Hirsh & Nation (1992) reported that there is a consensus that the first 2,000 words seem to be reasonably enough for learners to achieve general daily communication. Frequency and coverage are criteria for vocabulary selection and indicators for the level of difficulty of words. In addition to frequency and coverage, Wilkins (1972) mentioned that gradation should move smoothly between grades to facilitate vocabulary learning. Lexical difficulty is measured by frequency and coverage whereas text difficulty is measured by word density. Vocabulary items in a text affect comprehension. Kyongho & Nation (1989) concluded that causal links probably do exist between vocabulary and comprehension and that word density is likely to be the predominant causal factor for text comprehension.

Word definitions are as important as vocabulary items because they help students to understand the material better. The explanations of the new words given by teachers should be enough, relevant, clear and brief to decrease the level of difficulty. The vocabulary items which students learn need to be tested based on the assumption that the student's achievement reflects the level of vocabulary items in the textbooks.

The importance of vocabulary has been confirmed and the distribution of the grammatical categories of the vocabulary items in a text is equally important to measure the naturalness of the sample.

This study will evaluate the vocabulary items in English for Palestine, the 11th & 12th grades. The words in the word lists of both the textbooks of the 11th & 12th

grades will be evaluated in terms of frequency, coverage and gradation. In addition to the word density in reading texts, teachers' definitions of new words, students' vocabulary achievement and the distribution of the grammatical categories will be evaluated. The selected textbooks will be analyzed based on the recommendations and guidelines suggested in related research and literature.

1.2 Theoretical Background

Vocabulary items deserve conscious and systematic efforts in selection because they are important for language learning. Syllabus designers decide what vocabulary will be included in the material. They can benefit from the distinction which is made between the high frequency words of the language and the large number of low frequency words. According to Nation (2008), this distinction is cost-benefit. The cost is the time and effort to teach and learn the words. The benefit is the number of opportunities to use the words as represented by the frequency of the words. In addition, Syllabus designers could follow Nation's guide in presenting vocabulary in the textbooks. Nation (2008) advised syllabus designers to focus on the following strands. First, *meaning-focused input*. Here learners learn new vocabulary and establish previously met vocabulary through listening and reading. The learners should be focused on understanding and enjoying the material they read and listen to. Second, *meaning-focused output*. Learners enrich and establish their knowledge of vocabulary through speaking and writing. This strand should push learners to make use of vocabulary at the boundaries of their knowledge but shouldn't overload them with the need to use largely unfamiliar vocabulary. Third, *language-focused learning*. Learners deliberately learn new words and study more about previously met words and teachers give attention to vocabulary and vocabulary strategies. This strand

develops explicit knowledge of particular words and draws attention to aspects of the meaning, form, and use of words. Finally, *fluency- development*. Learners get more proficient at using the vocabulary that they already know.

1.3 Overview of the Textbooks

The Ministry of Education and Higher Education in Palestine is committed in producing a curriculum that meets the values and traditions of the Palestinians. English for Palestine is a modern and communicative English course which has been written for schools in Palestine. The 12 levels develop competence in the four language skills and encourage students to practise English with much focus on grammar and the Palestinian culture. The textbooks have been written and developed in consultation with local and international ELT experts. The textbooks follow the Ministry of Education syllabus, have built-in recycling and frequent revision to build confidence, include motivating and rewarding activities suitable for each grade throughout the school system and prepare school leavers for further study or the world of work. The components for the textbooks of the 11th & 12th grades are the student's book which presents the new language and provides classroom activities for practice and recycling; workbook which provides additional practice material for class and home use and practice tests; teacher's book which offers detailed step-by-step lesson notes for the teachers and teacher's audio cassette which presents all the listening activities. The English textbooks for the 11th & 12th grades contain 10 units each, that students have to learn through the whole school year. Each unit has 10 lessons which cover the four language skills. The word list for each grade appears at the end of each book as a glossary. Those words are the new words that students have to learn. Each word appears alphabetically in the lists with its phonetic transcription and

grammatical category. Those new words are the words which underlined in the reading texts.

1.4 Statement of the Problem

Vocabulary is considered to be of great significance in language learning. Research was conducted long ago trying to answer many questions raised. Some of them were: How many words do students need to learn to comprehend a text successfully? How many words can be studied within a set time? Why are some words more difficult to learn than others? How can we tell which words will be more difficult than others? What is the optimal ratio of the unknown words to the known in a text? How could we choose words to be included in the textbooks?

In spite of researchers' efforts, Nation is still in doubt about the findings of research. Nation (2008) mentioned that the answers to the above mentioned questions have been difficult to find. Research with foreign language learners has not provided clear cut answers to the questions. He mentioned for example, that researchers tried to find the norm of word density experimentally. Until there is further research, it's still wise to follow the guideline suggested by West (1926) and Nation himself referred to this norm in his studies. In addition to the doubts in literature, I have my own concern about the vocabulary element in the English for Palestine, the 11th & 12th grades. I have been thinking about the following issues concerning the vocabulary items of the English textbooks throughout my teaching:

1. The levels of word frequency, word coverage, gradation, density and teachers' definitions of the new words have to be evaluated to see if they are within, over or under the level of students.

2. The students' vocabulary levels have to be evaluated to see if the students' achievement reflects the vocabulary in the textbooks.
3. The distribution of the grammatical categories of the vocabulary of the textbooks has to be evaluated to see if it reflects the distribution of the grammatical categories in a standard dictionary which represents a natural sample

1.5 Significance of the study

This study is significant in many aspects. The main area of the study is vocabulary which is an important aspect in language learning. Lack of studies concerning the vocabulary items in the English textbooks will put this study in place. It's the first study dealt with vocabulary in English for Palestine, the 11th & 12th grades. In addition, it will go beyond other studies in the literature because it dealt with more than one topic related to vocabulary. However other studies focused only on one issue. Moreover, it will offer information for language researchers, syllabus designers and teachers with which they could better understand the nature of vocabulary selection and teaching in EFL contexts

1.6 Purpose of the study

Based on the statement of the problem, this study has the following aims. First, the English vocabulary lists (glossaries) in the English textbooks for Palestine, the 11th & 12th grades will be evaluated in terms of word frequency and coverage. This will shed light on the level of difficulty in selection. Based on the findings of frequency, gradation of the material will be explored. One might expect that the less frequent words are, the higher the level of grades. Moreover, the word density in the reading texts will be evaluated in order to see whether the ratio is within the norm

recommended by experts (2%). The evaluation will cover the word density in reading texts and with the 11th and 12th graders. Teachers' definitions of new words will be evaluated against Grice's Co-operative Principle. The definitions of the new words should follow Grice's maxims to enable students to comprehend the text. We assume that those teachers aren't aware of the maxims since they aren't trained. Teachers' ignorance of the maxims leads to difficult explanations which are irrelevant. That's why such word meanings should be evaluated. In addition, student's achievement in Nation's Vocabulary Levels Test will be evaluated to see whether or not student's achievement reflects the level of vocabulary in the textbooks. Finally, the distribution of the grammatical categories of the words in both grades will be measured and compared with the distribution in a standard dictionary to see whether or not the distribution of the grammatical categories of the words in the 11th and 12th grades reflect the distribution in a standard dictionary.

1.7 Research Questions

The following research questions will be addressed:

1. What's the level of difficulty of the vocabulary items in the textbooks based on frequency and coverage?
2. Is there gradation from 11th grade to 12th grade?
3. What's the level of difficulty of text comprehension based on word density?
4. What's the level of difficulty of teachers' definitions of new words?
5. To what extent does students' achievement reflect the level of vocabulary in the textbooks?
6. How far do vocabulary items represent a natural language sample based on the distribution of the grammatical categories of words in a standard dictionary?

1.8 Limitations of the study

The first limitation of this study is that it is confined to the secondary level, which means that the investigation cannot reflect the evaluation of vocabulary in all levels. Some of the essential elements in design, such as grading and sequencing of materials at different levels, probably can't be totally reflected in a study of textbooks at only one level. It is difficult to make generalizations about all textbooks in all levels. Another limitation is that the research data are only the new words appeared in the word lists of the 11th & 12th textbooks.

1.9 Definition of Terms

The following definitions are adopted in the study. It's the researcher's definition when there is no citation.

Academic words: words that are not from the most frequent 1,000 or 2,000 words but are frequent and widely used within that specialized area for which we use the language (Nation, 2008).

COBUILD, an acronym for *Collins Birmingham University International Language Database*, is a British research facility set up at the University of Birmingham in 1980 and funded by Collins publishers. The facility was led by Professor John Sinclair. The most important achievement of the COBUILD project has been the creation and analysis of a corpus of contemporary text (the Bank of English), and the production of the monolingual learner's dictionary *Collins COBUILD English Language Dictionary* (1987) based on the study of the COBUILD corpus. A number of other dictionaries and grammars have also been published, all based exclusively on evidence from the Bank of English (Ljung, 1989).

Core vocabulary: a basic nucleus of words that can be used to communicate successfully in the language (Carter, 1987).

Curriculum: it refers to the English Language Curriculum published by the Palestinian Ministry of Education and Higher Education (MEHE) in August 2003. It includes general guidelines for the authors of the syllabus, general objectives, the methods and the teaching procedures as well as the various ways of evaluating the students' achievements (English for Palestine: 12 Teachers' Book, 2008).

English for Palestine: a 12-year course in general English, was written specially for schools in Palestine to achieve the aims of the MEHE as described in detail in the Ministry's English Language Curriculum for Public Schools (1999). The course takes learners from the first level for beginners in Grade 1 to school-leaving in Grade 12.

Frequency: the number of times a word has been used in a corpus (Breland, 1996).

Frequency 33: it's a software program, designed by Nation (2005) and offered freely at <http://www.vuw.ac.nz/lals/staff/paul-nation.nation.aspx>. The program gives the rank order of the words, their raw frequency and the cumulative percentage frequency (Lin, 2006).

General Secondary Certificate Examination: (Tawjihi) it's an examination held by the MEHE at the end of the second secondary school year in all school subjects. Success in this exam is a requirement for all students to continue their university education.

Gradation: the hierarchy to be built into the material. It should proceed from the simple to the complex, the concrete to the abstract, the receptive to the productive and build upon the known to teach the unknown (Baker, 2007).

Grammatical category: it is a linguistic category of words (or more precisely *lexical items*), which is generally defined by the syntactic or morphological behavior of the lexical item. By the early twentieth century, grammarians of English had agreed on a set of eight parts of speech: *noun, pronoun, adjective, verb, adverb, preposition, conjunction* and *interjection*. It's also called lexical category, word class, lexical class, or in traditional grammar part of speech (Beck, 1999).

Grice's Co-operative Principle (CP): The philosopher Paul Grice proposed four conversational maxims. The principle describes how effective communication in conversation is achieved in common social situations and is further broken down into the Maxims of Quality, Quantity, Relevance and Manner (Grice, 1975).

High frequency words: a group of around 2,000 word families. They occur very often in all kinds of uses of the language. They include function words and many content words. The General Service List of English words is the classic list of high frequency words (Worthington & Nation, 1996).

Level of text difficulty: the problem that students will face in comprehending the text. It's based on word density in this study.

Low frequency words: English probably has a low frequency vocabulary of over 100,000 word families. They are words that are not quite frequent or wide range enough to be high frequency words as they occur rarely (Nation, 2008).

Natural language: the language spoken by native speakers. In this study, it's based on the distribution of the grammatical categories in a standard dictionary

Range 32: it is a software program, designed by Nation (2005) and offered freely at <http://www.vuw.ac.nz/lals/staff/paul-nation.nation.aspx>. This program provides a **range or distribution figure** (how many texts the word occurs in), a **head word frequency figure** (the total number of times the actual headword type appears in all the texts), a **family frequency figure** (the total number of times the word and its family members occur in all the texts), and a frequency figure for each of the texts the word occurs in. It uses three word lists as its word bases. First, **Word List One** contains the most frequent 1,000 words. Second, **Word List Two** contains the second most frequent 1,000 words based on *General Service List of English Words* by Michael West. Finally, **Word List Three** is the *Academic Word List* (Lin, 2006).

Running words: all the words in a text and sometimes they are called tokens (Hu & Nation, 2000).

Technical vocabulary: words with more special purpose and they are very common in one particular area such as the vocabulary of physics or the vocabulary of Applied Linguistics (Nation, 2008).

Threshold: it marks the boundary between having and not having sufficient language knowledge for successful language use (Chan, 1997).

- a. All-or-nothing threshold: Around 80% vocabulary coverage of a certain text- 20 out of every 100 words (Wang, 2007).
- b. Probabilistic threshold: At least 95% vocabulary coverage of a certain text for minimally acceptable comprehension (Nation, 2001).

Token: it is a unit of counting every word form or an occurrence in a spoken or a written text and if the same word form occurs more than once, then each occurrence of it is counted. Words counted in this way are called tokens or sometimes running words (Hu & Nation, 2000).

Vocab-profiler: is a free software program that will compare a given text with any properly formatted list. Three lists can be done at a time. The output will report what percent of the words in the text are on each of the lists. It will also print the text with the words marked to indicate to which list they belong. The three lists that come with the program are the first 1,000 words of the GSL, the second 1,000 words of the GSL and the UWL (Piu, 2005).

Vocabulary Levels Test (VLT): it was developed by Paul Nation in 1990 and it's widely used as a vocabulary size test. It consists of five word levels: 2,000, 3,000, 5,000, UWL (University Word List), and 10,000 and has four equivalent forms (Beglar & Hunt, 1999 & Kasal, Maki & Ninuma, 2005).

Word coverage: it is an attempt to measure the extent to which a word can cover meanings of other words (Piu, 2005).

Word density: the ratio of the unknown words to the known or to the total length of a text (Nation, 1982).

Word family: It consists of a base word, for example, dig and closely related inflected and derived forms, dig, dug, digging and digger (Nation, 2001).

Word lists: an alphabetical list of the new words that must be learnt through the course and usually highlighted in the text and collected at the end of the book (Davies & Face, 2006).

1.10 Summary

The paper is divided into five chapters. Chapter One outlines the theoretical background of the study, the problem, the purpose, the research questions, the limitations and finally the definition of terms which are appeared in the study. Chapter Two provides a review of the relevant literature, which prepares for the design of the study and provides background information on the research questions. Chapter Three explains the methodology used in the study. Chapter Four presents and discusses the findings of the analysis. Finally, Chapter Five concludes by summarizing the research findings, recommendations of the study and areas for further research.

Chapter Two

Literature Review

The review of literature in this chapter focuses on knowing a word, the significance of teaching and learning vocabulary, the criteria for vocabulary selection, word density, teachers' definitions of new words, dimensions to measure lexical knowledge and the distribution of the grammatical categories.

2.1 Knowing a Word

Knowledge of L2 vocabulary is multi-faceted. It should be related to syntactic, phonological, semantic or orthographic information and be concerned with pragmatics, psycholinguistics and sociolinguistics (Yule, 2001). As a scholar specializing in vocabulary teaching and learning, Nation (2001) categorized it into three main aspects: form, meaning and use. Knowing the form of a word includes its spoken form, written form and word parts. Knowing the meaning of a word involves form and meaning, concept and referents, and associations. Knowing the use of a word includes grammatical functions, collocations and constraints on use for cultural, geographical, stylistic or register reasons. Chang (2002) & Ngan (2007) summarized the views of a few linguists (Laufer, 1997; Nation, 1990 & Richards, 1974) concerning the knowledge of knowing a word and the synthesis is as follows:

1. Form: both spoken and written, namely pronunciation and spelling.
2. Word structure: the basic free morpheme and common derivations of the word and its inflections.
3. Syntactic pattern of the word in a phrase and sentence.
4. Meaning: referential, affective and pragmatic.
5. Lexical relations of the word with other words: synonyms or antonyms.

6. Common collocations.
7. General frequency of use.
8. Generalizability.

Nation (2001) classified vocabulary knowledge into receptive (R) and productive (P) categories. Receptive vocabulary knowledge is gained when we read or listen to language input (passive). However, productive knowledge is used when we try to produce written or spoken output (active). The differences could be clearly demonstrated from the following table illustrating the aspects of word knowledge provided by Nation (1990).

Table 1.1. Aspects of word knowledge by Nation (1990)

Form			
Spoken form	R	What does the word sound like?	
	P	How is the word pronounced?	
Written form	R	What does the word look like?	
	P	How is the word written and spelled?	
Position			
Grammatical patterns	R	In what patterns does the word occur?	
	P	In what patterns must we use the word?	
Collocations	R	What words or types of words can be expected before or after the word?	
	P	What words or types of words must we use with this word?	
Function			
Frequency	R	How common is the word?	
	P	How often should the word be used?	

Appropriateness	R	Where would we expect to meet this word?
	P	Where can this word be used?
Meaning		
Concept	R	What does the word mean?
	P	What word should be used to express this meaning?
Associations	R	What other words does this word make us think of?
	P	What other words could we use instead of this one?

Productive learning is more difficult because it requires the learners to know more about the features of the words especially the forms of the words (Nation, 2001). One's receptive vocabulary is usually larger than one's productive vocabulary. For instance, a learner may recognize the word "*impede*" and even be able to provide a synonym when encountering it within a context, but be unable to recall the word while writing or speaking (Nation, 1990; Laufer, 1998 & Clark, 1993). After discussing the various aspects of knowing a word, it is important to talk about the importance of vocabulary in teaching and learning.

2.2 The importance of vocabulary in teaching & learning

It seems that vocabulary has always been treated as the mainstream or at least as one of the major components of language learning and teaching (Wang, 2007 & Richards, 1974). More clearly, up to the mid-eighties, it was fashionable to describe vocabulary as of 'poor relation' to second language teaching and learning (Laufer, 1986; Carter, 1998 & Chow, 2007), whereas the nineties offer a remarkably different

picture. It is a 'current word' in language pedagogy and research in the field is expanding by the minute (Nation, 1990; Laufer, 1997 & Savicky & Hlavacova, 2002). The recurrent research themes include: the relationship between vocabulary knowledge and reading proficiency (Hu & Nation 2000); and vocabulary development patterns over time (Laufer, 1998 & Meara, 1997). Hu & Nation (2000) examined what percentage coverage of the text was required for unassisted reading for pleasure, where readers were able to read without the interruption of looking up unknown words. For the patterns of vocabulary development over time, Laufer (1998) investigated the gains in three types of vocabulary knowledge in one year of school instruction. Other research themes include learning new words versus learning new meanings of previously known words (Bogaards, 2001); learners' strategies to comprehend and learn new words (Schmitt, 1997) and testing vocabulary (Laufer & Nation, 1999; Nation 1983 & Read, 2000). The ever growing research interest in the field of vocabulary mirrors the importance of vocabulary in English language teaching and learning.

Moreover, Wang (2007) argued that a good number of researchers and scholars have noted a variety of very obvious and very practical reasons why lexical acquisition should be (and should long have been) one of the focal points in second language research. Both teachers and learners themselves are likely to agree with the position that a good amount of vocabulary, accompanied by minimal structural competence, makes for more efficient comprehension and communication than near-perfect grammar, accompanied by seriously lacking lexical competence. This folk wisdom was condensed by McCarthy (1990); Allen (1983) and Carter & McCarthy (1988) in the following way no matter how well the students learn grammar, no matter how successfully the sounds of L2 are mastered, without words to express a

wide range of meanings, communication in an L2 just cannot happen in any meaningful way. In addition, Nation (2008) noted that if grammar is like the skeleton of a language, vocabulary is like the flesh. Without words, interaction and understanding cannot be achieved. Vocabulary learning is seen as an integral area of language teaching by linguistic researchers. Words are the basic building blocks of language and the units of meaning from which larger structures such as sentences, paragraphs and whole texts are formed (Read, 2000; Hashemi & Gowdasiaei, 2005 & Miloseric, 2008).

Concerning EFL, the prominent role of vocabulary knowledge has been widely recognized by theorists and language learners (Kasper, 1993; Krashen & Terrell, 1983; Paivio, 1986 & Richards, 1980). Krashen (1989) argued that excellent reasons exist for giving attention to vocabulary and spelling. A large vocabulary is, of course, important for mastery of a language. Second language acquirers know the importance of learning vocabulary. So they carry dictionaries with them, not grammar books, and regularly mention that lack of vocabulary is a major problem.

In conclusion, vocabulary is one of the most important areas of language learning because it carries the main information load in a communicative situation either in EFL or ESL as mentioned by Miloseric (2008). The importance of vocabulary has been demonstrated and the inclusion of vocabulary into teaching materials depends on a number of criteria for vocabulary selection.

2.3 Criteria for vocabulary selection in materials

English has around 114,000 word families which were counted in a study conducted by Goulden, Nation and Read (1990). This number excludes proper names in *Webster's Third New International Dictionary*. The huge number is well beyond

the goals of most first language learners. Consequently, the question of which words students should learn and in what order has traditionally been regarded as a matter for teachers and material writers rather than the learners themselves (Baker, 2007).

Research has focused on using word-specific criteria to help teachers make choices about what items to teach to which students at various levels of study (Savard & Richards, 1969; Salter, 2002; O'dell, 2005; White, 1998 & Davies & Face, 2006). However, the following have been found in the literature:

1. Frequency of use: high frequency words.
2. Coverage: words with a broader coverage.
3. Range: words found in different text types.
4. Availability: words easy available to native speaker.
5. Learnability: easy words.
6. Opportunism: words connected with learners' immediate situation.
7. Centers of interest: words interesting to learners.
8. Gradation: sequencing the materials.

This study will focus on frequency, coverage and gradation and the other criteria mentioned above will be excluded. Concerning frequency and coverage, Savicky & Hlavacova (2002) stressed that the most frequent 2,000 words are essential for any real language use, and so are worth the effort and the time required to teach and learn them explicitly. It is promising and comforting that knowing about the 2,000 word families provides nearly 80 per cent coverage of written text and around 96 per cent coverage of informal spoken text (Nation,1995). The 2,000 words are decisive and helpful in a sense that if learners know these words, they will know a large number of running words in a text as they provide the essential lexical support for students (Schmitt, 2000; Lee, 2001 & Nation & Waring, 1997). In addition,

Schonell, Meddleton, & Shaw (1956) found that people regularly use about 2,000 words in their daily conversation. They found that the 2,000 words could satisfy interactions with native speakers on everyday topics. As for gradation, Wilkins (1978) raised the idea that learning could be made easier if some order could be brought to the business of deciding what language items to include and in what sequence they should be placed.

As for availability and opportunism, they will be covered through frequency. Range, learnability and centers of interest will be excluded from the study for the following reasons. Range is connected with words in written materials whereas this study will focus only on word lists (glossaries). Learnability focuses on what goes through the learner's mind which isn't our concern in this study. Finally, centers of interest are something personal. This study isn't a case study to focus on person's interest because we are talking about vocabulary in school textbooks. To evaluate vocabulary selection, it's important to depend on frequency as the first criterion.

2.3.1 Word Frequency

Frequency has been used in the past as a basis for selecting words for inclusion in concise dictionaries and in vocabulary lists of second language courses (Hernandez, Izura & Ellis, 2006). The most frequent items are the most useful (Saint & Poirier, 2005 & Salter, 2002). More clearly, Nation (2003) provided a very simple but practical description when he mentioned that the most useful vocabulary that every English language learner needs whether they use the language for listening, speaking, reading, or writing, or whether they use the language in formal and informal situations, is the most frequent 1,000 word families of English. Nation (2008) further explained that these 1,000 word families are so important and useful that they cover

around 75 percent of the running words in academic texts and newspapers, over 80 percent of the running words in novels and about 85 percent of running words in conversation. The next most useful list is the second 1,000 words of English. Carter (1998) raised the idea that these findings have shed light on the number of vocabulary items learners need to know and given rise to the concept of “core” vocabulary for English.

Research in the field of frequency focuses on the creation of word frequency lists to be used by teachers and material writers for the inclusion of the most frequent words. For example, Stuart & Masterson (2003) introduced a database of children's early reading vocabulary. 685 books from reading schemes and story books read by 5-7 year-old children were used in the construction of the database. All words from the 685 books were typed or scanned into an Oracle database. The resulting up-to-date word frequency list of early print exposure in the UK was available in two forms. This allowed access to one list of the words ordered alphabetically and one list of the words ordered by frequency.

In addition, Feather & Brown (2005) noted that adult beginning readers often wanted to learn to read so they could read the Bible. To address this source of motivation, the researchers attempted to identify a sight word list that included high-frequency words often encountered in the Bible. When they found only one such list, they decided to create one of their own. They used *Microsoft Excel* to create a list of the fifty most-frequently occurring words in *The Young Reader's Bible*, a version they believed would be appropriate for adult beginning readers.

Furthermore, Liu & Sloane (2006) used word frequency to select a list of target words to create a generative language system in Augmentative and Alternative Communication (AAC) for both literate and non-literate users. This was an important

problem because the selection of the encoded vocabulary would ultimately determine the language coverage of the AAC system. The vocabulary list should contain the most frequently used vocabulary of the spoken language.

In order to help ESL missionaries teach the gospel from their hearts using their own words, Thompson (2005) developed a 500-word list of core gospel vocabulary in English. To enhance the 500-word list, Thompson included a lexicon with simple definitions, some grammatical information, and examples of the words in context. Published literature showed that the development of specialized corpora- bank of information- could be beneficial for students learning another language. Additionally, specialized corpora acted as a catalyst for in-depth vocabulary analysis and the development of other materials associated with the field of language acquisition helped a lot. Using the 5,013 lexical items from the *Preach My Gospel*, manual which described how the language of the gospel was specialized, the researcher developed a specialized vocabulary list of 500-words. To achieve this, she used a number of strategies to reduce the larger compilation of words into the most useful and essential core vocabulary:

1. a pre-rating selection resulted in 2,419 words,
2. a nonnative ESL-instructor rating resulted in the selection of 994 words,
3. a post-rater researcher analysis resulted in 425 words,
4. a range-and-frequency analysis resulted in 634 words, and
5. a think-out-loud analysis resulted in 500 words.

After creating the 500-word list, she implemented and tested the materials with ESL missionaries at the Missionary Training Center (MTC) in Provo, Utah. She gathered feedback from ESL teachers and missionaries through interviews and a questionnaire. Based on their responses, she determined that the 500-word list was

useful in helping missionaries learn essential vocabulary and to teach gospel topics in English. Furthermore, the materials have drawn attention from administrators and developers at the MTC, creating a springboard for future projects at the MTC.

However, other research uses word frequency lists to evaluate the level of word frequency in materials. For example, Tang (2005) conducted a research project to investigate the richness and the nature of the lexical input from two sets of English textbooks for the six-year primary and four sets of major English textbooks used for the three-year junior secondary levels in Hong Kong. Tang's study was comprehensive because the analysis covered the nine-year lexical input from primary education to junior secondary level from major textbooks. Tang's study focused on examining the frequency of the words, repetition of words between grades and the lexical variation (LV) ratio of the textbooks. The researcher used *Vocab-Profile* (VP) to analyze the frequency of the vocabulary items of the textbooks. The results have shown that the textbooks had sufficient high frequency words which enabled students to communicate effectively.

Piu (2005) evaluated the vocabulary in some samples of three series of locally produced English textbooks at secondary level in Taiwan against a set of criteria in vocabulary selection which were frequency, utility, range and economy. The online software "*VocabProfiler*" and "*Range*" were used to check the information about the frequency and range of the keywords taken from the vocabulary sections in the textbooks. The results have shown that the two series of the textbooks out of three contained vocabulary of high frequency. As a result, the level of difficulty of the words would be low. However, the third series of the textbooks under study contained vocabulary of low pedagogical value- low frequent words which were insufficient for learners to continue their studies at senior secondary level or

university. Consequently, the researcher concluded that the level of difficulty of the words would be high.

Meara (1993) evaluated the lexical component of a popular BBC English course. The course vocabulary items were analyzed by *VP* and it was found that all the words, learners would be exposed to, came from the first 1,000 most frequent level and this did not change as the course moved through the levels from beginner to intermediate.

Recent research using textbook samples indicated that the common core vocabulary among introductory textbooks was not very large. Griggs, Johnson & Proctor (2004) analyzed the glossaries of current introductory textbooks to identify the set of common core concepts using 2 criteria, common to more than 50% and to 80% or more of the textbooks. Teachers could use these 2 sets of core concepts to help structure their introductory courses.

In conclusion, word frequency research describes the creation of high-frequency word lists that can be used in teaching. On the other hand, it evaluates the level of word frequency in materials to determine the level of difficulty of words. According to Mackey & Savard (1967), the word frequency lists can be used by researchers seeking to control word frequency, and to teachers interested in the vocabulary to which learners are exposed in their reading material. Teaching the words from frequency list will benefit learners and facilitate their progress in learning. As a result, we will see whether the Palestinian English textbooks include low or high frequency words as it is in the English textbooks in other contexts. To evaluate word selection, it's necessary to depend not only on the level of word frequency but also on word coverage.

2.3.2 Word Coverage

Mackey & Savard (1967) mentioned that word coverage has to do with the capacity of an item to take the place of others. The most usual replacements take place by restatement in other words. This is what happens in dictionary definitions. We can say, for example, that "a puppy" is "a young dog" and that "a kitten" is "a young cat", so that "young" covers part of "puppy" and "kitten". Definition, therefore, is obviously one of the constituents of coverage.

A second way of replacing a word is to use another word instead. Instead of "conflagration", for example, we can use the word "fire". This is the sort of replacement found in certain dictionaries of synonyms. Since one word includes the meaning or part of the meaning of another word, inclusion is another constituent of coverage.

A third way of replacing a word is to extend the meaning of a simpler word. By extending the meaning of the word "body", for example, to include the idea of "framework", we can replace the word "fuselage" when speaking of 'airplanes'.

A fourth constituent is combination, or combining power. A word which can combine with a larger number of items can be used to replace a large number of words. "Newspaperman" (news+ paper+ man) replaces "journalists".

The criterion of word coverage captures the interest of research. There have been some attempts to create indices of coverage. For example, Mackey & Savard (1967) presented a list that measured the capacity of 3,000 words of the French vocabulary to define, extend the meaning of, or to replace other words. The researchers hoped that these indices might be valuable in providing additional measures of the coverage of what was taught and perhaps in helping improve some of the basic word lists which are now being employed.

Other research attempts to measure the lexical coverage in materials to evaluate the level of difficulty of the words. For example, Chow (2007) examined two sets of locally published English language textbooks for junior secondary (1 -3 grades) in Hong Kong in order to investigate the lexical coverage of the textbooks. The research project was designed to

1. compile a small textbook corpus, and
2. investigate the nature of the lexical input using two dictionaries. The first one was the *Longman Dictionary Defining Vocabulary* from *Longman Dictionary of Contemporary English*, 4th edition and the second ESL dictionary word list was *The Oxford Dictionary*. Results have shown that the users of the textbooks were exposed to a reasonable high proportion of words that were in the coverage lists of the two dictionaries (80%). This would decrease the level of word difficulty. Therefore, the books were useful as they contained words that covered the meanings of other words.

In conclusion, word coverage is an area of interest in the selection of items for language teaching. The focus of research is either on producing lists of word coverage or evaluating word coverage in materials. In addition to frequency and coverage, gradation is the third criterion for vocabulary selection.

2.3.3 Word Gradation

Gradation is the hierarchy to be built into the reading material. It should move from the easy to the difficult, here to there, the concrete to the abstract, the receptive to the productive and build upon the known to teach the unknown (Barker, 2007). Unless the language, both oral and written, is properly graded in teaching English, the learning process will suffer. For instance, if a student were to come across a dozen or two words or expressions with which he is unfamiliar in a short paragraph, he would

naturally resort to deciphering and analyzing and to using the dictionary as if it were a taskmaster. Such a process is frustrating, and that this may be seen in the way the great majority of second-hand English books in Japanese stores show how a student, after filling up the first dozen or two pages with notes, leaves the rest of the book unread. The content in such cases may be of the right level, but the language is not. In order to make the study of a foreign language fruitful and interesting, the vocabulary matter must be graded (Lo, 2007).

Research shows evidence of using gradation to evaluate materials. For example, Nadler (1969) raised the criterion of gradation in presenting grammar and vocabulary to be considered in evaluating textbooks for classes of English for Speakers of Other Languages (ESOL). In the same area, Liao (2006) conducted a research by choosing three most frequently used versions of English textbooks from both junior high and senior high schools. The researcher evaluated the vocabulary in the textbooks. Contrary to the common perception, that there was a vocabulary gap between the two high school levels, the figures revealed that the junior and senior high English textbooks were very much consecutive on vocabulary and gradation moved smoothly from lower to higher grade.

As a result, the level of difficulty of the words decreased. This result revealed one fact that the vocabulary was consecutively presented and gradation was shown clearly. The researcher, by means of the collected data, tried to set forth the outcome and come up with a recommendation hoping to provide the English learners in other levels outside the study sample with a sounder set of learning tools and the relevant authorities with an alternative of selecting textbooks while promising our people a “consecutive” academic curriculum in which gradation between grades was obviously noticed.

In addition, Ljung (1989) examined the English vocabulary of English textbooks used in Swedish upper secondary schools to distinguish differences between the vocabulary of the textbooks and modern, everyday English as represented in newspapers, books and the colloquial language. Fifty-six books were included in the sample. In the selection process, account was made not only of the popularity of each book, but also of its distribution among different types of school and different grades to determine the rising level of difficulty in vocabulary between grades. These texts were then compared to the COBUILD corpus which represented the largest computerized English collection of texts available. Results revealed a different vocabulary profile in texts from that found in normal English as represented by COBUILD texts. Additionally, texts appeared insufficiently progressive with the result that the words were very often randomly distributed among the grades instead of growing successively.

There is evidence in literature showing the use of more than one criterion in vocabulary selection. For example, gradation and frequency were evaluated in a study conducted by Rinsland (1945). The researcher stated that the objective of his study was to present the actual frequency of the use of words, grade by grade, of many children from all sections of the country- America and to give these data in such a way that they might be helpful to the teacher, the writer of textbooks, and the student for learning. Rinsland asked the schools in rural communities, in cities of various sizes, coastal and inland to send compositions in many school subjects, examination papers on non-technical topics, trips and observations written by children. Rinsland contended that this list would be useful not only to teachers and textbook writers but also to other writers writing for the elementary school children because the latter would not be aware of actual vocabulary of pupils of these grades.

According to Rinsland, his vocabulary list provided (90%) of words for VIII grade children and more than (98%) of vocabulary for I grade children and for other grades, the limits would range between (90%) and (98%). So research studies recommended the idea of exposing learners to vocabulary in a progressive manner- the more simple before the more complex, the more useful before the less useful, the more frequent before more rare and the regular before the irregular. These data thus comprised a valuable aid to teachers in the textbook evaluation and selection process.

The reviewed literature discusses various criteria to vocabulary selection such as frequency, coverage and gradation. Teachers and material writers can benefit from these criteria to know about the word frequency, coverage and gradation. They will know the level of frequency in everyday speech or in writings, the number of vocabulary items that learners need to comprehend the text successfully, and the sequencing in presenting vocabulary. In the present study, the word lists in the textbooks will be evaluated in terms of frequency, coverage and gradation. So more than one criterion for evaluation will be used as it is seen in the literature.

After reviewing literature, Bowles (2000) noted that the following vocabulary types should be included in EFL contexts:

1. the most important words to understand a reading text,
2. words of high coverage,
3. words of high frequency,
4. polysemous words,
5. words are significant,
6. words can be integrated into students' lives,
7. words are related to the national culture,
8. the vocabulary items are selected to suit the students' needs, and

9. the selected words are for communication.

Frequency, coverage and gradation are norms that indicate the level of difficulty of vocabulary items. Word density is an indicator for text comprehension.

2.4 Word density

Word density is the ratio of the unknown words to the total number of words in a text (Nation, 1982). Word density in a text affects comprehension. Hirsh & Nation (1992) tried to find the best ratio experimentally by checking the word density in context. They found that there should be no more than one unknown word in every 50 running words. Nation (2008) urged that learners should be focused on understanding and enjoying the material they read and listen to. The aim would be to push the learners to make use of vocabulary at the boundaries of their knowledge and they shouldn't be overloaded with the need to use largely unfamiliar words.

Lin (2006) conducted a study to investigate the quantitative aspects of vocabulary in the first volumes of the major three senior high (SH) school English textbooks and the major three vocational high (VH) school English textbooks. The researcher also evaluated the vocabulary in the old curriculum. Not only were the vocabulary lists evaluated, but also the unlisted new words in the related sections which were categorized into 22 corpora. They were explored and compared in terms of the size of new words, the word overlapping, the consistency between junior high (JH) vocabulary lists and SH/VH textbooks, the new-word density, and the frequency of word exposures. The software *Frequency 33* and *Range 32 programs* were used to evaluate the frequency and consistency in textbooks. The results have shown that the overlapping between the books under study wasn't adequate enough. The results revealed that even though the new JH vocabulary lists (Word-JH1000 & Word-

JH2000) provided a larger proportion of overlapping with the 22 SH/VH corpora than the old JH vocabulary (Word-JHA & Word-JHB), the gradation of vocabulary between JH & SH/VH wasn't adequate enough. Both SH & VH textbooks were too dense with new words. So the 'all-or- nothing threshold' (80% known words in a certain text) couldn't be reached. Finally, the frequency of word exposures was too low to be well-learned. Therefore, the level of difficulty of words was high.

To make learning vocabulary fruitful, the level of difficulty of teachers' definitions of new words needs to be evaluated. Definitions of the new words in the English textbook, 11th grade aren't included in the textbook and aren't distributed to all schools by MEHE as it's done with the 12th grade. Therefore, teachers have to explain them to students. We assume that teachers aren't aware of Grice's maxims or coverage when explaining word meanings. Teachers' word meanings should reflect a high coverage of the words in the dictionary and should be in line with Grice's Cooperative Principle in relation to clarity, brevity, quantity and relation. The maxims should be simplified and adapted to vocabulary. This increases students' comprehension.

2.5 Teachers' definitions of new words

Grice (1975) proposed the Cooperative Principle. This Principle has been widely used in research to show the proper use of language. To extend Grice maxims to vocabulary definitions, it has been decided to adapt his maxims into the following:

1. Quantity: make your contribution as informative as is required. The quantity of information in the definitions is important to help students understand the reading comprehension thoroughly.
2. Relation: be relevant. The meaning should be relevant to the word.

3. Manner: the meaning should be clear and brief. Teachers should avoid obscurity word meanings. Their definitions should not be too short or too long.

There is an increasing interest in the literature to extend Grice's analysis of conversation to written material which is our concern in this study. Pratt (1977) developed the notion that the language of everyday life and the language of written material don't differ as much in content as in degree.

Teachers' written word meanings will be evaluated against Grice's Cooperative Principle. Word meanings are an important factor for comprehension. Teachers' word meanings should be in line with the Cooperative Principle in order to help students understand the texts. To get the best possible benefits from learning vocabulary, the word meanings given by teachers should be informative, relevant, clear and brief. Teachers' definitions of the new words won't be evaluated against quality because it's difficult to know whether or not teachers are true. After discussing teachers' definitions of new words, it is essential to move to talk about measuring lexical knowledge.

2.6 Two dimensions to measure lexical knowledge

It's difficult to carry out effective research on measuring the size of the lexicon and research proposes the use of some standardized vocabulary tests to assess overall lexical competence across a range of various frequency bands and different specialist areas of lexis. In fact, lexical knowledge can be measured from two dimensions, breadth of vocabulary knowledge and depth of vocabulary knowledge (Meara, 1996).

Breadth of vocabulary knowledge refers to quantitative aspects of lexical knowledge, or how big learners' lexicons are (Nation, 2001). To estimate the size of vocabulary, researchers have used various types of assessment tools with different

formats, ranging from the Yes/No test, True/False test, multiple-choice test, definition matching test, to the word completion test. The measure that has been widely used to estimate the size of vocabulary knowledge is Nation's Vocabulary Levels Test. The Vocabulary Levels Test exists in two different versions: productive and receptive versions (Laufer and Nation, 1999).

On the other hand, depth of vocabulary knowledge refers to the qualitative aspects of lexical knowledge, or how well the learner knows a word. When assessing learners' quality of word knowledge, researchers have noted the complexity and have suggested that knowing a word well should mean more than knowing its individual meanings in particular contexts. As a measure to test depth of knowledge, various kinds of knowledge associated with a word are assessed, including its pronunciation, spelling, register, stylistic and morphological features as well as syntactic and semantic relationships with other words such as collocations and knowledge of antonyms and synonyms (Meara, 1996 & Read, 2000). To verify that students learn the words of the textbooks, students' vocabulary levels will be tested.

2.6.1 Nation's Vocabulary Levels Test

There is considerable value in gaining knowledge about language learner's achievement because it can be used effectively for curriculum-design purposes (Kasal, Maki & Ninuma, 2005). Therefore, to measure the learner's vocabulary achievement and the quantitative difference in vocabulary knowledge between learners, researchers have used various types of assessment tools with different formats. The measure that has been widely used is Nation's Vocabulary Levels Test (Laufer & Nation, 1999).

There is evidence in the literature showing the use of Nation's Vocabulary Levels Test to measure the learners' achievement levels and to see if all the high frequency vocabulary is known. The vocabulary levels test provides a quick way of doing this and it is reasonably easy to interpret. For example, Lam (1997) conducted a study to investigate the vocabulary size of the 40 secondary students in Hong Kong by comparing the scores of low-achiever (band 5) and high-achiever (band 1) students on a set of tests including Nation's vocabulary levels test (1990). The findings have shown that the high-achiever students generally had a better performance at all word levels in contrast with low achiever students. However, the biggest difference between the two subject groups was found at the 2000-word and 3000-word levels. The results revealed that high achiever students performed well at the high frequency levels and their performance decreased in other frequency levels. This result was not surprising as students had already learnt more of high frequency words and less in other levels of frequency. The findings of the test allowed the researcher to speculate that it was essential for L2 learners to have a better knowledge of the words of the threshold level and this could possibly enable them to learn and use the language more effectively.

Chui (2005) conducted a study to investigate the differences between students in vocabulary size. The sample was 187 students who were newly admitted to The Chinese University of Hong Kong. The results of the Nation's (2001) Word Levels Test were very much in line with the research on the English lexical knowledge among the university students in Hong Kong. The findings revealed that while most students recognized most of the words at the 2,000 most-frequently-used-words level, they acquired fewer than half at the 3,000 level and fewer than a third at 5,000 level

on average. Their performance at the 10,000 level was particularly unsatisfactory, with an average scores of (8%).

Zimmerman (2004) investigated the role of vocabulary size in assessing learners from various L1 backgrounds for institutional placement. Participants who included native speakers of Spanish, Korean, Japanese, and Mandarin were tested using Nation's vocabulary levels test (2,000, 3,000, 5,000 and 10,000 levels). First, the vocabulary size of students from each language group was compared and the relationship between vocabulary size and institutional placement level was examined. Then, scores were analyzed to determine how cognates and loan words influenced the participants' performance on the vocabulary test. Further, students' vocabulary size scores were correlated with their placement scores that evaluated reading, writing, speaking, listening, and grammar. Finally, the vocabulary size of new students was compared to returning students within the same institutional placement level. Results showed that students from different backgrounds performed well at the 2,000 frequency level and performed badly at the 10,000 level. Within the same institutional placement levels, speakers of Spanish and Korean had larger English vocabularies than speakers of Japanese and Chinese. It was also found that there was a clear distinction between students at varying institutional placement levels in terms of their vocabulary size. The cognate analysis revealed that students learned cognates faster than non-cognates because these words were similar in languages. The correlation analysis revealed that vocabulary size correlated most with speaking, and listening, followed by grammar, then reading and writing. Finally, the cross-sectional analysis indicated that the vocabulary size of newly placed students was generally larger than that of continuing students.

Moreover, Miyagik (2004) applied Nation's second 1,000 word level test to determine how a Japanese student who had completed English words through one of seven textbooks would do on the test of the second 1,000 words. The results showed that Japanese students would learn barely half of the second 1,000 most frequent words of English during three-year instruction as far as the textbooks stayed as the only source of their vocabulary learning.

Shan (2007) conducted a study to explore whether there were differences in vocabulary knowledge size and word knowledge among the Chinese as a medium of instruction (CMI), English as a medium of instruction (EMI) and partial EMI (PEMI) Secondary students in Hong Kong. Three groups of the students (35 each group) were given Nation's vocabulary 2,000 Level, 3,000 Level and Academic Vocabulary Level Tests (Nation, 1990) so as to find out their performance at different word levels. The one-way ANOVA affirmed the significant difference, demonstrating that the three groups of students differed with regard to the test scores on the Nation's Word Levels test and the word test on aspects of word knowledge. The results showed that the EMI students had the highest scores on the Nation's Word Levels Test whereas the PEMI students outperformed the CMI students. The three groups performed well at high frequency words and there was a decrease in scores for the groups at the other levels of the test.

Similarly, Tadamitsu (2005) measured the vocabulary size of 202 EFL Japanese university students using the 2,000, 3,000, AWL and 5,000 word levels of Nation's vocabulary levels test. The findings have shown that students scored more at the 2,000 level than the 3,000 level. The least score was within the 5,000 level. The same results were found in studies conducted by Laufer & Nation (1999), Read (1988), Laufer, Elder, Hill & Congdon (2004), Nation (2006) & Salter (2002).

The Vocabulary Levels Test will be used in this study to see how students perform at different vocabulary levels, what levels of vocabulary students already know and whether the students' achievement reflects the vocabulary provided in the textbooks. After discussing vocabulary testing, it's important to talk about the distribution of the grammatical categories of words in materials. The distribution represents the natural use of the language in the real world.

2.7 The distribution of the grammatical categories

Research on grammatical categories -parts of speech- is concerned with the degree to which English school textbooks reflect a natural English sample. For example, Weir & Ozasa (2007) conducted a study to compare the extent to which the content of 3 school textbooks in Japan reflected the characteristics of reference language materials. This was based on the ground that these materials afforded a reasonable standard for natural English. The primary materials used for reference were *Brown Corpus* of American English and the *British National Corpus* of British English. The characteristics considered were the proportions of the grammatical parts of speech (POS) represented in the textbooks. The parts of speech which were studied were nouns, verbs, prepositions, determiners, adjectives, adverbs, personal pronouns, possessive pronouns and interjections. The results have shown that there was a notable similarity in the distribution of (POS) in the three textbooks on the one hand and the textbooks and the reference materials on the other hand.

Similarly, Chuang (2005) analyzed the distribution of the grammatical categories of the words (verbs, nouns, adjectives & adverbs) in 84 reading texts in 6 textbooks used in all senior high schools in Taiwan. The researcher found that nouns

made up the highest percentage of words while adverbs comprised the smallest percentage.

So by measuring the distribution of the parts of speech in the 11th & 12th textbooks and comparing the results with those in the dictionary, we can come to a conclusion about the extent to which each textbook mirrors the reference pattern of the grammatical constituents. Consequently, we can shed light on the degree to which this measure of naturalness is reflected in each textbook. The dictionary represents a standard for native language usage and reasonable indicator of natural English. Our assumption in adopting parts of speech as a dimension of naturalness is that the natural use of English will tend to be similar to the distributions of the parts of speech found in the English dictionary.

The distribution of the grammatical categories of words in textbooks is a reflection of that in a standard dictionary which represents a natural sample. After talking about the distribution of the grammatical categories, it is relevant to move to talk about teaching and learning vocabulary in Palestine and other EFL contexts.

2.8 Vocabulary teaching and learning in Palestine and other EFL contexts

Vocabulary learning used to be seen as minor to language acquisition. Linguistic theorists considered vocabulary learning as a simple functional-associative model and the focus was on the quantity (Piu, 2005). Passing through decades of neglect from 1940 to 1970 (Fries, 1945; Lado, 1955; Carter, 1998 & Laufer, 1986), vocabulary is now recognized as central to both native language acquisition and non-native language learning (Allen, 1983; Carter & McCarthy, 1988; Laufer, 1997 & Nation, 1990). The emphasis on vocabulary might result from the significant role of vocabulary in language learning and teaching as a major factor in the four language

skills and general language proficiency (Laufer & Shmueli, 1997). Thus, it is not surprising to find that the role of vocabulary is somewhat major throughout the whole of the Palestinian school education. The English Language Curriculum Guidelines, published by the Palestinian English Language Curriculum Centre and appeared in English for Palestine: 12 Teachers' Book (2008), serve as the guide for English language teaching in schools of Palestine. The term “vocabulary” and the instructions on how vocabulary should be taught and learnt are discussed thoroughly. The emphasis is to help learners acquire sufficient and adequate vocabulary knowledge to express their ideas effectively. In addition, much attention is drawn to the teaching of grammar, culture and the four language skills of speaking, listening, writing and reading. The result of this interest in vocabulary teaching and learning is reflected in the General Secondary Certificate Examination. Students are usually tested in vocabulary in a separate section and 35 marks out of 150 of the test are given to the vocabulary section in addition to the vocabulary questions in the reading comprehension section. The same interest in vocabulary is seen in other EFL environments. For Example, Chen (2000) presented that the Ministry of Education (MOE) in Taiwan in 1994 promulgated some guidelines for editors and teachers to follow. The most specific criteria set by the MOE were about vocabulary such as suggesting the number of vocabulary occurring in each lesson and each volume. Moreover, the MOE offered a 2,000-word vocabulary list for junior high school. This is also followed in Japan. Bowles (2000) mentioned that the Japanese Ministry of Education (hereafter: Monbusho) in 1998 provided guidelines for the objectives of teaching English. Monbusho’s EFL pedagogical objectives were quite clear. They called for developing the “four language skills”: listening, speaking, reading, and writing in current standard English. The guidelines also included a prescribed list of

507 most common words required for inclusion in secondary school EFL textbooks. In addition, Calixto (2000) reported that the PCN (National Curriculum Parameters) required teaching English in primary and secondary schools in Brazil within the ability of reading and vocabulary knowledge. Finally, Hill (2005) mentioned that secondary school learners in Hong Kong should make their vocabulary levels close to 2,000 words by the end of school. She added that this was the minimum goal for HKCEE (Hong Kong Examination & Assessment Authority) level students.

2.9 Summary

To select a manageable number of items from the entire vocabulary for the inclusion in a textbook is not a simple task because of the enormous number of English words as mentioned by Nation (2008). However, there is evidence in the literature showing the use of certain criteria of word selection to create a core list of vocabulary. The criteria of frequency, coverage, and gradation between grades are used greatly in research studies. These criteria are used to analyze and evaluate vocabulary in textbooks to determine the level of difficulty of the words. Furthermore, the reviewed literature proposes a cost-benefit perspective for deciding which words to teach. The 2,000 words seemed to be the most commonly cited initial goal for second language learners. In addition to allowing basic conversation, this number of words is seen as providing a solid basis for moving into more advanced study. Moreover, research studies show the importance of exposing a learner to a language in a progressive manner. Research shows that word density in reading texts affects text comprehension as recommended by experts. In addition, word meanings are as important as words themselves to help students use the language appropriately. Consequently, the level of difficulty of words and their meanings will be evaluated.

Research proves the use of vocabulary levels test to confirm that students' achievement mirrors the vocabulary of written materials. In addition, English words are grouped into categories like nouns, verbs, adjectives, adverbs, prepositions, etc. The distribution of the grammatical categories of words is a function of the distribution in real language use.

Based on research studies, we will use **Piu's** methodology to evaluate word frequency and **Chow's** methodology to evaluate word coverage in school textbooks. The methodology in the two mentioned studies can be presented briefly which is the selection of the word lists to be included in the study and then the selection of a statistical word-frequency list and another for coverage. Finally, a list of words with information about the frequency and coverage of the analyzed words will be created for each set of textbooks. As for gradation, we will use **Liao's** methodology which is comparing the word frequency levels in the 11th grade with those in the 12th to evaluate the continuity between the word lists in both textbooks. Concerning the level of text comprehension based on word density, we'll use **Kyongho's & Nation's** methodology which can be presented briefly: the number of the new words in a text is divided by the total number of tokens and then the result is multiplied by 100.

As for teachers' word meanings, we will evaluate the teacher's word meanings against Grice's maxims. As for student's vocabulary levels tests, we will use **Nation's** methodology which can be summarized in choosing a sample of students randomly and then administrating the 2,000, 3,000, 5,000, 10,000 & AWL word levels test. Finally, we will use **Weir's & Ozasa's** methodology to analyze the distribution of the grammatical categories in written materials. The methodology can be summarized briefly as analyzing the distribution of the grammatical categories in both 11th and

12th textbooks and then comparing the distribution with that in a standard dictionary.

The methodology will be explained in detail in chapter three.

Chapter Three

Methodology & Procedures

This chapter contains instruments and data analysis.

3.1 Instruments

In order to analyze the data, six types of instruments were used.

1. The General Service List (GSL):

It is a set of 2,000 words, developed by West, 1953. These words are selected to be of the greatest "general service" to learners of English. Frequency was one of the factors taken into account in making the selection. Each of the 2,000 words is a headword representing a word family. Frequency numbers are given, derived from Thorndike and Lorge (1944). Frequency data are also given for the various meanings of words. This list has had a wide influence for many years, serving as the basis for graded readers as well as other material. Texts based on the GSL are still in use (Worthington & Nation, 1996). It's called a general service list because the words it contained would be needed (of service) in a wide range (general) of situations and genres. The GSL was based on a frequency count of adult written text, but over the years the list was adapted to include words most suited to young learners and to informal colloquial use of English (Hirsh & Nation, 1992). Word lists in *English for Palestine*, the 11th & 12th grades were checked against this list. To categorize the words till the 5th high frequency levels, Thorndike & Lorge's Frequency List was used.

2. Thorndike & Lorge's Frequency List:

It was created as a resource for elementary and high school teachers. This frequency list which is still frequently cited is the source of the words above the 2,000 word level in the vocabulary test in Nation (1990). This frequency list is non-computerized word counts totaling about 18 million written words. Each word in the list is followed by the frequency of occurrence of the word (Thorndike & Lorge, 1944).

The word lists in the 11th and 12th textbooks were evaluated against the first column because it's a summary from all four counts and it is the most important and decisive. However, the numbers in the T, L, J and S columns may be of great value in certain cases. According to Thorndike & Lorge (1944), the T counts emphasized frequency in readers, the Bible and English classics, the L counts included only recent and popular magazines, the J counts included only books recommended for boys and girls in grades 3-8 and the S counts used a miscellany of juvenile and adult reading- of old and recent, and of matter-of-fact and imaginative- but omitted school readers and textbooks. This was used to categorize the frequency of words beyond the first 2,000 word families.

3. The Academic Word List (AWL):

The academic corpus, designed to make the AWL, consisted of 4 equally sized sub-corpora (Arts, Science, Commerce and Law) and each sub-corpus consisted of 7 subdivisions, making a total of 28 subdivisions. It was assumed that learners would know the first 2,000 words of English as represented by the GSL and so words in the GSL weren't counted when the data was gathered from the academic corpus. The 570 word families found in this way were then divided into 10 sub-lists based on their range and frequency figures. The first 9 sub-lists each contains 60 word families and

the last (sub-list 10) contains 30. The words in the first sub-list are the most frequent words and those in the last sub-list are the least frequent. The AWL was made by answering the question: What words beyond the high frequency words of the language are frequent and have wide range in academic text? 91% of the words in the AWL are of French, Latin, or Greek origin and speakers of languages closely related to French, Latin, or Greek find the learning burden of the AWL to be quite light (Nation, 2008).

This list was chosen to be used in the study because the words in the AWL are beneficial for secondary students who are about to enter the university after passing the General Secondary Certificate Examination. The academic words are important to prepare students for reading academic texts at the university level.

4. Coverage List in Longman Dictionary:

The coverage list in Longman Dictionary contains 2,000 words. Knowing the words in the coverage list is the only prerequisite for understanding the definitions of every word in the dictionary and gives access to about 80 per cent of the words in any written text (Chujo & Utiyama, 2005). The coverage of each word in the word lists in both textbooks was evaluated against the coverage list in *Longman Dictionary*.

5. Grice's Co-operative Principle:

It's a conversational principle introduced by Grice (1975) in an attempt to capture the interactive nature of human communication. It's based on four maxims which characterize the effective use of language. These maxims are quantity, quality, relevance and manner (Widdowson, 2008).

Grice's maxims were mainly used for conversation to achieve the proper use of the language. However, there is an increasing tendency in literature to apply the maxims to written material. Pratt (1977) raised this idea when he mentioned that the language of everyday life and written one aren't different. Accordingly, teachers' definitions of the new words were evaluated against the maxims to see whether or not teachers' definitions were in line with the maxims. This would help students understand the definitions of the words more and increase the students' comprehension of the text. All the word definitions in the dictionary are in line with the maxims of Grice. We evaluated teachers' definitions only for the 11th grade because the word meanings are excluded from the word lists. As for the 12th grade, a list of word meanings is distributed to all schools in Palestine by the Ministry of Education and Higher Education to generalize the word meanings because of the *General Secondary Certificate Examination*.

6. Vocabulary Levels Test:

This test was designed by Nation in 1983 to estimate examinees' basic knowledge of common word meanings, and, specifically, the extent to which they know the common meanings of words. In other words, the main idea behind the vocabulary levels test is that it's useful to view the vocabulary of English as consisting of a series of levels based on frequency of occurrence. It samples vocabulary from the 2nd 1,000 word level, the 3rd 1,000 word level, the 5th 1,000 word level, the 10,000 word level and the Academic Word List. It thus has five levels within the test. The 2,000 and 3,000-word levels contain the high-frequency words that all learners need to know to read unsimplified texts; the 5,000-word level represents the upper limit of general high-frequency vocabulary that is worth spending time on in class; and the

10,000-word level covers the more common lower-frequency words of English. Finally, the AWL helps students in reading their textbooks and other academic reading material. Each frequency level of the test comprises ten blocks and each block includes six words and three definitions. The first 1,000 words are not tested because it is not possible to give the meanings of these words in simpler language. The new versions of the test appeared in 1993.

In the current version of the test, each level contains 30 items. In the original old version of the test, each level contained only 18 items. Learners are instructed to match target words with their corresponding definitions by writing the appropriate number next to each definition.

- | | | |
|-------------|--------|----------------------------|
| 1. business | | |
| 2. clock | --6--- | part of a house |
| 3. horse | --3--- | animal with four legs |
| 4. pencil | --4--- | something used for writing |
| 5. shoe | | |
| 6. wall | | |

The target words are tested out of context because context might provide clues to help choose the meaning of the words. This type of test is easy to make and easy to mark, provided very low chances of guessing correctly, tested a large number of words in a short time and allowed learners to make use of whatever knowledge they had of the meaning of a word. The words in each section of the test were chosen so that they would be representative of all the words at that level. Learners who know the words at one level well can answer the questions in that level very quickly because there are only a few things to read. A native speaker does the whole test in five minutes and gets full marks in the levels. Usually a maximum of 50 minutes should be allowed for taking the test. Most learners will need less than this. The instructions should not require any explanation but people taking the test should be helped with the instructions if this is necessary. When marking the test, it's advised

that one mark is given for each correct matching of a word and its definition. The test can be objectively marked by matching a slip of paper containing the correct answers with the spaces provided for the learners to write their answers. On an average it takes two minutes to mark and add the score of one test (Nation, 2008). After reviewing the literature and using Nation's Vocabulary Levels Test, Laufer (1998) mentioned that the VLT has the following features:

1. It's reliable: it keeps giving the same result for the same person even though it was administered by different people. Reliability is achieved because of the following:

- a. each level of the test contains 30 items or points of assessment,
- b. the test format is familiar to the learners because they have taken such a test before,
- c. the instructions and way of answering are the same in all versions of the test, and
- d. the marking uses a marking key and criteria that take account of most possible variations in answering.

2. It measures what it is supposed to measure. Validity is achieved because of the following:

- a. the test is used for the purpose for which it was designed,
- b. the knowledge and skills learners use to take the test are as close as possible to the knowledge and skills involved in the vocabulary knowledge being measured,
- c. the test suited to the level of the learners, and
- d. the learners take the test seriously, try their best and do not cheat.

3. It is easy to use. Practicality is achieved because of the following:

- a. it does not take a long time and a lot of skill to make the test or if the test is ready-made,
- b. it does not take a long time to take the test,

- c. it is easy to mark the test,
- d. the score on the test is easy to interpret, and
- e. it is not expensive to make copies of the test for the learners to take. The test was administered in this study to see whether or not the student's achievement of the 11th and 12th grades reflected the vocabulary of the textbooks.

3.2 Procedures

With the attempt to answer the research questions, the data were analyzed as follows

1. Word lists in textbooks

Word lists were taken from the 11th and 12th English textbooks for Palestine. The word lists are given at the end of the books. Each word appears alphabetically in the word lists with its proper phonetic transcription and grammatical category. These are the vocabulary items that students are expected to learn and be able to use. Word lists in the target texts were chosen to determine the level of difficulty of the text on one hand and to know if there is a gradation for smooth transition from lower grade to higher one.

In the word lists, there are a number of "phrasal verbs" and "phrases". In the word list of the 11th grade, there are 8 phrasal verbs, four with the verb 'Keep' and another four with the verb 'Put'. As for the 12th grade, the phrasal verbs are mentioned in the vocabulary exercises in the textbook and not found in the word list. Consequently, the 8 phrasal verbs were excluded from the study because they need a special treatment as they didn't appear in the frequency and coverage lists as phrasal verbs but as separate words. As for the phrases that are made of more than one word, they were included in the study. The individual forms making up the phrase were

evaluated and listed separately in the word lists as it was recommended by Nation (2006). These phrases are 27 in the 11th grade and 17 in the 12th grade. The words appeared in the word lists with no suffixes or prefixes as it was recommended by Davies & Face (2006) and because all the instruments used to categorize words were based on headwords.

2. Using word-frequency lists.

To evaluate the frequency level for each word in the word lists in English for Palestine, the 11th & 12th grades, three tools were used which were the General Service List (GSL), Thorndike & Lorge's frequency list and the Academic Word List (AWL). More than one tool was used because each one was used for a different range of frequency. The GSL was used for the first and the second thousand levels, Thorndike & Lorge's frequency list was used for the third, fourth and fifth thousand levels and the AWL was used to evaluate the size of the academic words in the target textbooks. To evaluate the frequency levels of the words against the GSL, the analysis covered the first and second thousand levels. Two lists of words for each grade were created. The first list contained all the first most frequent words and the second contained the second most frequent words. However, the third, fourth and fifth thousand levels were analyzed against Thorndike & Lorge's frequency lists. Four lists of words for each grade were created. These four lists included the third, the fourth, the fifth most frequent 1,000 words and a list of words that were not found in the first top 5,000. So each headword and its inflections were distributed among the lists to indicate which band of frequency it was in. To measure the size of each frequency level to all for each grade, the number of words in each frequency level for each grade

was calculated and divided by the total number of words in each grade and then the results were multiplied by 100.

The AWL was used to measure the size of the academic words in the word lists of the 11th & 12th grades. The academic words found in the word lists were listed with information about the frequency level for each word ranging from 1-10. 1 referred to the most frequent words and 10 to the least frequent. The number of words was counted and divided by the total number of words and then the result was multiplied by 100. The results will help answer the first part of the research question: What's the level of difficulty of the vocabulary items in the textbooks based on frequency and coverage.

3. Using the coverage list in Longman Dictionary

To examine whether the selected words in the textbooks of the 11th & 12th grades had the capacity of replacing other words, the index of word coverage in *Longman Dictionary* was used. For each grade, a list contained all the words was created and the following codes were used.

√= (Yes): found in the coverage list.

×= (No): not found in the coverage list.

To measure the size of the words which had the capacity of covering the meaning of other words, the number of words which were found in the coverage list was counted and divided by the total number of words in each grade, and then the result was multiplied by 100. This will help answer the second part of the first research question: What's the level of difficulty of the vocabulary items in textbooks based on frequency and coverage?

4. The distribution of the grammatical categories

The Second Edition of the *Oxford English Dictionary* (2004) contained full entries for 171,476 words in current use, and 47,156 obsolete words. To this may be added around 9,500 derivative words included as subentries. Over half of these words were nouns, about a quarter adjectives, and about a seventh verbs; the rest was made up of interjections, conjunctions, prepositions, suffixes, etc. According to Weir & Ozasa (2007), adverbs made up (6%) of the dictionary ratio and prepositions made up (2%) of the dictionary ratio.

To answer the sixth research question: How far do vocabulary items represent a natural language sample based on the distribution of the grammatical categories of words in a standard dictionary, five lists were created. Each list included a separate part of speech. The grammatical categories that appeared in the study were nouns, verbs, adjectives, adverbs and prepositions. Each word in the word lists in the 11th & 12th grades was distributed among the 5 separate lists. The grammatical category for each word was mentioned to determine the percentage of each category to all and compare the results with that in the dictionary. Each grammatical category was counted and divided by the total number of all the grammatical categories, and then the results were multiplied by 100.

5. Gradation from the 11th grade to 12th grade

The question about the gradation from the 11th grade to 12th grade was examined depending on the findings of word frequency levels. The results about the high and low frequency levels in 11th & 12th grades were compared.

6. Word density

English for Palestine, the 11th & 12th grades have 20 reading texts in 10 units each. The new vocabulary items that students have to learn are highlighted in the reading texts. The level of difficulty in the texts is different depending on the word density. The norm of word density which is recommended in literature is (2) unknown words in every 100 words. Accordingly, the level of difficulty of the texts, based on the ratio of the new items to all was analyzed to see whether or not the word density was within the norm (2%). In order to calculate the density of the new words in a text, 40 reading texts in both 11th & 12th grades (20 readings texts in each grade) were evaluated. For each text in each grade, all the new words were calculated and divided by the total number of the words in the text and the result was multiplied by 100% and then the mean was calculated for all texts (see appendix 1).

In order to investigate the ratio of the unknown words to the known with the students in our schools, a test was administered. 40 average students (11th graders=20 & 12th graders= 20) were chosen randomly from 6 literary sections in Khadija Abdeen Secondary School for Girls in Hebron. The 12th graders were asked to read silently the second reading text in unit four: '*Big projects... Big benefits*'. This reading text is about the great engineering projects in Egypt. The number of all words in this text is 589 and the number of the new words is 12. However, the 11th graders were asked to read silently the second text in unit one: '*The trouble with travel*'. This reading text is about the bad effects of traveling. The number of all words in the reading text is 421 and the number of the new words is 14.

a. Administering the test

The test was administrated in the second semester of 2008/2009 to find out whether the word density in the texts was similar to the norm recommended in literature (2%). Before administering the test, the teacher gave the following instructions to the students:

1. students could use the entire 40-minute period to complete the test.
2. the students were asked to underline all the words that they didn't know in the text after attempting to comprehend as much of the passage as possible. This task was used previously by Laufer (1987) to serve the same purpose as the present study. This was required to find out the percentage of unknown vocabulary to known in the reading texts. This task took about 40 minutes.

To measure the size of word density in each frequency level for each grade, the level of frequency for each word which was underlined by students was checked. Then, the number of the underlined words in each frequency level for all students was divided by the total number of underlined words in all frequency levels and then the result was multiplied by 100. This will help to answer the third research question: What's the level of difficulty of text comprehension based on word density?

7. Evaluation of the teachers' definitions of new words

Teachers' definitions were the meanings of the new words that the 11th graders have to learn during the whole school year. Teachers' choices and phrasing of the meanings of the new words should meet the conditions of quantity, relatedness, clarity and brevity to help students understand the new words that they have to learn.

In order to evaluate the level of difficulty of teachers' definitions of the new words of the 11th grade, a sample of 30 teachers' notebooks was collected from 30

teachers in Hebron schools. The definitions of the new words from 30 teachers for 386 new words were evaluated against the 3 maxims of Grice. Each word was evaluated 30 times because 30 teachers' notebooks were collected. In each maxim, the definitions were distributed into 2 categories- those which were in line with the maxim and those which violated the maxim. Under each category, the numbers were calculated and divided by the total number of definitions. Then, the results were multiplied by 100%. Then, the definitions of the new words given by 30 teachers were judged by another 4 English teachers- a male and 3 females from 3 schools in Hebron: Widad and Khadeeja Secondary Schools for Girls and Al-Hussein Secondary School for Boys. They have been teaching the 11th grade for at least 8 years. Those teachers have been chosen because they have been teaching in the 3 famous secondary schools in Hebron. To enable those teachers to evaluate the definitions, the researcher explained the maxims thoroughly for them and evaluation of 10 word meanings of 5 teachers out of the sample was done as an example. Then, they evaluated the word meanings separately and the mean was calculated. The definitions of the new words were not evaluated against quality because it is not possible to evaluate the truthfulness of the teachers and definitions. This will help to answer the fourth research question: What's level of difficulty of teachers' definitions of new words.

8. Using Nation's Vocabulary Levels Test:

To answer the fifth question which is to what extent does student's achievement reflect the level of vocabulary in the textbooks, the vocabulary levels test (version 2, 1993) was used to measure students' knowledge about the 2,000 word level, 3,000 word level, 5,000 word level, 10,000 word level and the Academic

Words. According to Nation & Meara (2002), the test has five sections, covering various frequency levels and so the results help teachers decide what vocabulary level learners should be working on. Because teachers should deal with high-frequency and low-frequency words in different ways, the results of this test can also help teachers decide what vocabulary work they should be teaching with particular learners or groups of learners.

The subjects were 2 groups of students at different achievement levels of English as a foreign language. They were 11th graders (n=25) and 12th graders (n=24) from Widad Secondary School for girls, Hebron city. They were chosen randomly from 18 classes of both 11th and 12th grades. The 11th graders have been learning English for 6 years and 12th graders for 7 years. Since English is studied as a foreign language, class work is the main source of input.

a. Administering the test

The test was administered in the second semester of 2008/2009 to find out whether or not student's achievement reflected the vocabulary items of the textbooks. Before administering the test, the teacher gave students the following instructions with examples:

1. students could use the entire 40-minute period to complete the test, and
2. students were told to match words with their meanings.

The answers were checked. The grading was based on true/false answers. Each section of the test was corrected out of 30 as there were 30 questions per section and then the scores were converted to percentages. In this way, each student was given a score for each of the five levels 2,000, 3,000, 5,000, 10,000 and Academic Word.

3.3 Summary

Chapter three covered the methodology and procedures used in the study. Six types of instruments were used to analyze the data. The steps of analyzing the data were mentioned thoroughly which would lead to discuss the findings of the study.

Chapter Four

Findings and Discussion

4.1 Introduction

In this chapter, the findings are discussed and presented according to the research questions. Question number one covers the findings about the criteria for vocabulary selection in terms of frequency and coverage in the target textbooks. Gradation from the 11th grade to the 12th grade is discussed in question number two. Question number three presents the findings about word density in reading comprehension. Question number four discusses the results about the evaluation of the teachers' definitions of the new words. Question number five presents the results of the students' scores on Nation's Vocabulary Levels Test. Finally, question number six covers the findings about the distribution of the grammatical categories in the target textbooks.

4.2 Question 1: What's the level of difficulty of the vocabulary items in textbooks based on frequency and coverage?

The level of difficulty is one factor in vocabulary selection. According to Nation (2008), vocabulary difficulty is estimated in various ways; the most usual are frequency and/or coverage. That is why analysis was made on frequency and coverage to measure these factors. The main units of the analysis were the words in the word lists of the textbooks. These words were analyzed in terms of frequency and coverage. The statistical analyses are shown in tables 4.2, 4.3 & 4.4 below.

To measure the frequency levels of the words, analysis was made. The results are shown in table 4.2.

Table 4.2. Numbers & percentages of frequency levels of the new words in the English textbooks of the 11th & 12th grades

Textbooks	No. & % in the range of 1,000	No. & % in the range of 2,000	No. & % in the range of 3,000	No. & % in the range of 4,000	No. & % in the range of 5,000	No. & % of words aren't in the 1 st 5,000	Total
11 th grade	170 44.04%	95 24.61%	22 5.69%	26 6.73%	16 4.14%	57 14.76%	386 100%
12 th grade	156 36.11%	83 19.21%	54 12.50%	51 11.80%	21 4.86%	67 15.50%	432 100%

Table 4.2 shows the numbers & percentages of frequency levels of the new words in the English textbooks of the 11th & 12th grades. Results show that the textbooks of the 11th & 12th grades include a high percentage of the first and the second 1,000 words. The 11th grade has (44.04%, 24.61%) in the first and the second thousand levels and the 12th grade has (36.11%, 19.21%) in the first and the second thousand levels. This is likely to match the initial vocabulary learning goal for junior learners as indicated by Chow (2007) and Nation (2008). The learning goal for junior learners is to learn a large number of words in the first and second most frequent levels. Findings show that the textbook of the 11th grade has more high frequency words in the first and the second 1,000 levels than those in the 12th grade. The 11th grade has (44.04%) of the words in the first 1,000 range whereas the 12th grade has (36.11%). This discrepancy is also noticed in the 2,000 range. The 11th grade has (24.61%) and the 12th grade has (19.21%). This means that more higher frequency words in a lower class are accepted in terms of moving through planning from the high frequency to the lower frequency. In line with this observation, it's noticed that the 12th grade has more words in the third thousand level than that in the 11th grade. The 12th grade has (12.50%) while the 11th grade has (5.69%).

Results show that the 12th grade has more words in the range of 4,000 than those in the 11th grade. The 12th grade has (11.80) whereas the 11th grade has (6.73%) in the fourth level. It's noticed that the textbooks of the 11th & 12th grades are similar in the last two categories. The 11th grade textbook has (4.14%) in the 5,000 range and 12th grade textbook has (4.86%) in the 5,000 range. Moreover, the 11th grade textbook has (14.76%) of the words which are not in the first five ranges and the 12th grade textbook has (15.51%) of the words which are not in the first five ranges.

The inclusion of more low frequency words in the textbook of the 12th grade than those in the 11th grade is expected. According to Nation (2008), after students have already learnt more words in the first and the second thousand high frequency word levels, they need to continue learning more words in other levels of word frequency. This provides an indication for the order in which words should be learnt. High frequency words need to be learnt before low frequency words. This suggests that attention has been paid to the importance of word frequency in the selection of vocabulary. The inclusion of high frequency words in the textbooks of the 11th & 12th grades gives students the chance of systematic exposure to the most common words of English. These findings are supported by the finding of Piu (2005) who found that around (89%) of the words were in the first 1,000 level, (87%) of the words were in the second 1,000 level, (16%) of the words were in the 3,000 level, (11%) of the words were in the 4,000 level and (8%) of the words were in the 5,000 level. He also found that very close to (90%) of the words in the English textbooks in Taiwan for the secondary students were from the first 2,000 level and the words in the books moved progressively year by year. This finding is in line with Tang's study (2005) who found that (70%) of the words in the textbooks for the secondary level in Hong Kong were from the first 2,000 level. The tendency of including high frequency words

agrees with the aim of *The Palestinian Ministry of Education and Higher Education* which indicates that students should understand and use about 3,000 of the most common English Lexical items by the end of the secondary stage (English for Palestine: 12 Teacher's Book). In addition, Laufer (1987) suggested 5,000 words as the threshold level to read authentic text successfully. Those words have to be learnt during the school education. Most high school graduates in EFL countries have a far smaller vocabulary than this at the end of school education. Nation (2008) mentioned that from a teaching point of view, only the words in the most frequent 2,000 words of English deserve individual attention from teachers to students. Beyond that level, that is the words in the third, fourth, fifth thousand levels and over, teaching attention should be directed more towards strategies for learning and coping with these words. Learners should continue to expand their vocabulary but teachers should not necessarily continue to teach particular words directly.

Looking at these results shows logical progression in learning vocabulary by way of helping students to go through building vocabulary smoothly to handle texts with graded difficulty. For university students with academic purposes-those who want to study at the university level and read academic texts, the Academic Words are equally important and therefore such items will be checked to find out their size in the texts.

According to Nation (2008), Academic Vocabulary consists of 570 word families that occur frequently across a wide range of academic subjects. They are very important for students who have academic purposes for learning English. That is, they want to study through the medium of English either in colleges, universities or

technical institutes. For such students, the first step is to make sure that they know the 2,000 high frequency words and then to learn the vocabulary of AWL.

In order to evaluate the size of the academic words in the textbooks, analysis was made. The results are presented in table 4.3.

Table 4.3 Numbers and percentages of the new words of the English textbooks of the 11th & 12th grades that appear in the AWL

Textbooks	+ AWL	- AWL	Total
11 th grade	68 17.61%	318 82.38%	386 100%
12 th grade	83 19.21%	349 80.78%	432 100%

Table 4.3 shows the numbers and percentages of the 11th & 12th words that appear in the AWL. In the table, (+) means words which are found in the Academic list and (-) means words which are not found in the Academic list. Total refers to the total number of words in the word lists of English for Palestine, the 11th & 12th graders. Results show that the textbooks of 11th & 12th grades provide low portion of the Academic Words. However, the number and percentage are a little bit higher in the 12th grade which are 83 (19.21%) in contrast with those in the 11th grade which are 68 (17.61%). This finding is supported by the finding of Piu (2005) who found that the Chinese English textbooks which were evaluated in his study had less than 3% (from 1.32% to 2.77%) of the AW. This means that (97%) of the Academic Words were not included in the textbooks. Therefore, Piu (2005) concluded that the textbooks didn't contain many of the academic words which are used in colleges, university and tertiary levels. This will increase the level of difficulty in handling academic texts. Based on the findings of this study, about (80%) of the Academic Words are not included in the 11th & 12th grades. Thus students will face a greater challenge in handling academic texts at the university level.

To sum up, the texts include high frequency words which enable students to use the language. However, students will have trouble in dealing with academic texts as the words in the AWL aren't well known by students. According to Nation (2008), helping students develop their control of academic vocabulary is like teaching English across the curriculum. That is, the learning is most usefully done in association with learning the content of a subject matter area, or at least, doing academic things like reading academic text, listening to lectures, discussing academic topics and readings, giving formal academic talks, writing assignments and answering examination questions. These activities need to be arranged so that they involve the necessary conditions for learning to occur. That is, they have to be at the right level of difficulty. In addition to frequency, coverage is another principle for vocabulary selection in materials.

Vocabulary coverage includes words that have been used for all explanations and examples in the dictionary. The 2,000 words in the coverage list are crucial and beneficial in a sense that if students know these words, they will know a larger number of running words in a written or spoken text and they provide the basic lexical platform for students (Nation, 2008).

In order to measure the coverage of the words, matching was made. The results are presented in the following table.

Table 4.4. Numbers & percentages of the words of the English textbooks of the 11th & 12th grades that appear in the coverage list

Textbooks	+ Coverage	- Coverage	Total
11 th grade	242 62.69%	144 37.30%	386 100%
12 th grade	256 59.25%	176 40.74%	432 100%

Table 4.4 shows the numbers & percentages of the 11th & 12th words that appear in the coverage list. (+) refers to the words which are found in the coverage list and (-) refers to the words which are not found in the coverage list. The total in the table refers to the total number of the words in the English textbooks of the 11th and 12th grades. Results show that more than half of words in both 11th & 12th grades are in the coverage list (62.69% & 59.25%). This indicates that students have been exposed to a higher portion of the 2,000 words in the coverage list. This finding is supported by the finding of Chow (2007) who found that (80%) of the words in the English language textbooks for junior secondary in Hong Kong were in the coverage lists of the *Longman Dictionary Defining Vocabulary* & *Oxford Dictionary*.

When comparing the two texts, results apparently show that the 11th grade has more words included in the coverage list than those in the 12th grade. This result is expected because students in the 12th grade have already learnt a reasonable portion of the words that fall in the coverage list and they need to learn other words outside this list as they are moving toward a higher level.

Based on the findings of frequency and coverage, we expect that students will have a light vocabulary load. This finding is supported by the findings of Piu (2005) who found that the level of difficulty of the words in the studied textbooks decreased because of the inclusion of a large portion of high frequency words. As for the AWL, we anticipate that the level of difficulty of the words becomes high because of the inclusion of a low portion of academic words. This finding is supported by the finding of Piu (2005). This answers the first research question: What's the level of difficulty of the vocabulary items in the textbooks based on frequency and coverage? In addition to frequency and coverage, gradation is the third criterion.

4.3 Question 2: Is there gradation from the 11th grade to the 12th grade?

Based on the findings of frequency, the 11th grade textbook has more words in the first and the second thousand levels. However, the 12th grade textbook has more words in the third, fourth and fifth thousand levels. In other words, gradation from grade 11th to grade 12th goes from high to low in the first and the second thousand levels. However, it goes from low to high in the third, fourth and fifth thousand levels. It's proved that English has a very large number of words and it's far beyond the goals of any language course to give attention to anything but a small proportion of these words. It is thus necessary to choose carefully what words to focus on (Goulden, Nation & Read, 1990). For this reason a distinction is made between the high and low frequency words. This distinction is essentially beneficial. It helps teachers to teach the high frequency words because each word of high frequency level occurs very often, so the effort of learning it will be rapid by plenty of opportunities to meet and use it. Moreover, Nation & Coady (1988) indicated that low frequency words are a very large number of different words and they occur only once or twice in a particular text. Most of these low frequency words are very important for the message carried by the text.

These findings are supported by the finding of Liao (2006) and are not in line with Ljung (1989). Liao (2006) found that there was gradation between the junior and senior high school English textbooks and therefore there wasn't a vocabulary gap between the two high school levels whereas Ljung (1989) found that the upper secondary school textbooks were insufficiently progressive with the result that the words were randomly distributed between the three grades instead of growing successively as one proceeded from the 1st grade to the 3rd grade. The researcher concluded that one might expect the more difficult, more abstract, and more rare

words to become more common as one moved up through the grades. This answers the second research question: Is there gradation from the 11th grade to the 12th grade?

Having discussed gradation of difficulty and selecting of vocabulary items to be included in written materials, it's relevant to talk about the density of the new words in a text because this gives indication of the degree of difficulty in reading comprehension.

4.4 Question 3: What's the level of difficulty of text comprehension based on word density?

According to Nation & Coady (1988), there are a number of factors in a text which contribute to its ease or difficulty for a given reader. Vocabulary is an important factor and word density has the strongest effect (Nation, 2008). Accordingly, the level of difficulty in a text is based on the ratio of the unknown words to the known. In order to find out the level of difficulty in the reading texts, the word density in the textbooks was evaluated. The number of the new words in a text was divided by the total number of words in a text and then the result was multiplied by 100%. The highlighted words in the texts were counted only because they reflected the words in the word lists which are our purpose in this study. The method of dividing the unknown words to the known was previously used by Hirsh & Nation (1992) to serve the purpose of evaluating the word density in reading texts. The results are presented in the following table.

Table 4.5. Word density in all reading texts in the 11th & 12th grades

Textbooks	Number of texts	Total number of all words in texts	Number of new words in texts	Ratio of new words in texts
11 th grade	20	8191	252	3.07%
12 th grade	20	10,349	337	3.25%

Table 4.5 shows the word density in reading texts in the 11th & 12th grades. Results show that the ratio of the unknown words to the known is (3.07%) in the 11th grade and (3.25%) in the 12th grade. Students may encounter around (3) unknown words per (100) words. These findings can even be more important by knowing the optimal new word density which is preferably around (2) percent (one unknown word in 50 known words) as it's recommended by Hirsh & Nation (1992) & Nation (2006). Chujo & Utiyama (2005) argued that experienced teachers such as West (1926) suggested the guideline that one unknown word in every fifty words would be the minimum threshold necessary for the adequate comprehension of a text. Nation (2008) added that if more than five percent of the words are unknown, then it is likely that there is no longer meaning-focused learning. Based on the findings, the density of the new words in the texts seems to be within the norm recommended by experts in reading comprehension (2%).

The result on the word density in all texts will be more important by knowing the norm of word density in each reading text in the 11th & 12th grades (see appendix 1). The number of unknown words was counted and divided by the total number of all words in that text and then the result was multiplied by 100. results show that the norm of word density ranges from (1.44%) to (4.56%) in the 11th grade and from (2.03%) to (4.44%) in the 12th grade. It seems that the norm is within the norm in the literature (2%). The norm of the word density in (2) reading texts out of (20) in the 11th grade ranges from (1.44%) to (1.93%). It seems that the norm in the (2) reading texts is lower than the norm in the literature (2%). So students will find reading more enjoyable. The word density in (13) reading texts in the 11th grade ranges from (2.35%) to (3.49%). Because they are within the norm (2%), students will understand the texts. The word density in (5) reading texts in the 11th grade exceeds the norm

(2%). The norm ranges from (3.88%) to (4.56%). Students face difficulty in understanding those (5) reading texts. Moving to the 12th grade, the word density in (12) reading texts in the 12th grade ranges from (2.03%) to (3.43%). Students might face no difficulty in text comprehension referring to the word density. The word density in (8) reading texts in the 12th grade ranges from (3.83%) to (4.44%) which exceeds the norm (2%). Consequently, the 12th graders will find reading more problematic in those (8) reading texts.

Lin (2006) found that the high school English textbooks in Taiwan were too dense with the new words-(20) new words per 100 words. The word density that the students may face could be larger than what the textbook editors designed or expected to be. It is reasonable to say that a textbook with higher new-word density indicates higher level of text difficulty. Because of this high percentage, he gave a recommendation of simplifying the syllabus and to make the ratio within the norm as recommended by experts in the literature. Similarly, Chen (2000) mentioned that the high word density would make students lose learning interest which is the key to successful and efficient learning.

To investigate whether or not the norm of word density recommended in the literature (2%) is similar to the norm with the 11th & 12th graders, statistical analysis was made. 40 students from the 11th & 12th grades (20 each) were chosen randomly for the purpose of the test. The 11th and 12th graders were given a test each. They were asked to read silently a reading text from their textbooks and were told to underline all the words that they didn't know in the text. To measure the percentage of the unknown words in each frequency level for each grade, the number of the unknown words for all students in each frequency level was calculated and then

divided by the total number of the unknown words in all frequency levels and then the results were multiplied by 100%. The results are presented in the following table.

Table 4.6. Word density of the 11th & 12th graders

Frequency level	Ratio of unknown words to text in 11 th grade (n=20)	Ratio of unknown words to text in 12 th grade (n=20)
1,000	10.68%	19.52%
2,000	13.77%	20.88%
3,000	8.55%	10.86%
4,000	8.31%	12.05%
5,000	4.75%	13.41%
Average	9.21%	15.34%

Table 4.6 shows the mean scores for the 11th & 12th graders on word density in reading texts. Results show that the word density in the 11th & 12th grades exceeds the density norm which is (2%). The ratio in all frequency levels is (9.21%) in the 11th grade and (15.34%) in the 12th grade. Results show that the word density in all frequency levels is more in the 12th grade than that in the 11th grade (15.34%, 9.21%). Results show that the word density in the first and the second thousand high frequency levels exceeds other levels in the 11th and 12th grades. The word density in the 11th grade is (10.68%) in the first frequency level and (13.77%) in the 2,000 frequency level. This rise in the word density is also shown in the 12th grade. The word density is (19.52%) in the 1,000 frequency level and (20.88%) in the 2,000 frequency level. Based on the findings, there is decrease in the word ratio in the third, fourth and fifth frequency levels in both 11th & 12th grades. In the 11th grade, the word density is (8.55%, 8.31% & 4.75%) in the 3,000, 4,000 and 5,000 frequency

levels respectively and (10.86%, 12.05% & 13.41%) in the 12th grade. This means that the word density doesn't match the norm. This gap between the norm which is recommended in the literature and the findings of the study with the 11th & 12th graders might refer to density of high frequency words in the texts. Those words might be new words included in lower grades than the 11th & 12th grades but students didn't learn them. This finding is supported by the finding of Lin (2006) who found that the density of the words was 20 new words per 100 words. Students would face difficulty in handling texts. This answers the third research question: What's the level of difficulty of text comprehension based on word density? The gap between measuring the word density with the 11th & 12th graders and the norm causes difficulty which will lower the speed of comprehension. So teachers may be obliged to either choose lower level texts or give more time to handle the reading with comprehension. Since discussion has been focused on the difficulty of words including frequency and density, it's assumed that teachers would give definitions for the new words within the coverage list to decrease the difficulty level of finding meanings. That's why teachers' definitions of new words will be discussed to evaluate the definitions of words given by teachers in terms of quantity, relation and manner according to Grice's maxims.

4.5 Question 4: What's the level of difficulty of teachers' definitions of new words?

Teachers' definitions of the new words should be clear, brief, adequate and related. This will help students to comprehend the text thoroughly. Accordingly, the level of difficulty of the definitions of the new words given by teachers of the 11th grade was evaluated and statistical analysis was made based on the maxims of

quantity, relation and manner. The definitions of the new words from 30 teachers for 386 new words were collected from the teachers' notebooks and evaluated against the 3 maxims. The teachers' definitions weren't evaluated against quality because it is difficult to determine the truthfulness of the teachers and their definitions. Those words were the new words that students of the 11th grade have to learn in this school year. Each word was evaluated 30 times because 30 teachers' notebooks were collected. Then, 5 judges worked separately to evaluate the 386 new words and then the average was taken. It's noticed that some of the definitions were similar and others were different. In each maxim, the definitions were distributed into 2 categories- those which were in line with the maxim and those which violated the maxim. Under each category, the numbers were calculated and divided by the total number of definitions. Then, the results were multiplied by 100%. The results are presented in the following table.

Table 4.7. Numbers and percentages of the teachers' definitions of new words of the 11th grade in relation to Grice's Maxims

Maxim	+ Maxim	- Maxim	Total
quantity	217.5 (56.34%)	168.5 (43.65%)	386 (100%)
relation	330.66 (85.66%)	55.34 (14.33%)	386 (100%)
manner	142.28 (36.86%)	243.72 (63.13%)	386 (100%)
clarity	154.26 (39.96%)	231.74 (60.03%)	
brevity	130.3 (33.75%)	255.7 (66.24%)	

Table 4.7 shows the numbers and percentages of the teachers' definitions of new words in relation to Grice's Maxims. (+) means that the word definition is in line with the maxim and (-) means that the definition violate the maxim. Total refers to the

total number of words in each grade. To measure the percentages of the teachers' definitions of the new words against the maxim of relation, the definitions for each word from 30 teachers were evaluated against relation. The results were divided by the total number of the definitions and multiplied by 100%. Results show that the maxim of relation is represented in the definitions of words given by teachers (330.66, 85.66%). Examples of teachers' definitions which match the maxim of relation are presented in the following list.

List 4.1 Examples of related teachers' definitions of the new words in the 11th grade

No.	New words	Teachers' definitions
1.	assess	estimate.
2.	conservation	the act of conserving, keeping.
3.	deadly	fatal.
4.	following	next in time.
5.	frightened	related to the feeling of fear or worry.
6.	height	the quality or degree of being tall or high.
7.	influence	to have an effect on.
8.	injury	harm or damage to living things.
9.	minor	smaller in degree.
10.	opportunity	chance.
11.	protected	kept safe from harm.
12.	qualified	having suitable knowledge esp. for a job.
13.	remove	take away.
14.	surface	the outer part of something.
15.	target	aim, an object which one desires to.
16.	violent	using great damaging force.

List 4.1 shows examples of related teachers' definitions of new words. This is because the teachers' definitions of new words match the intended meanings of the new words in the reading comprehension. The intended meaning is determined by the context. (330.66, 85.66%) of the teachers' definitions will be easy for students to learn as they fit with the meaning in the reading comprehension. Whereas (55.34, 14.33%) of word definitions violate the maxim of relation which means that the

definitions are given without referring to the intended meaning of the word in the context. Examples of teachers' definitions which are not in line with relation are presented in the following list.

List 4.2. Examples of teachers' definitions which aren't in line with Relation

No.	New Word	Teachers' definitions	Intended definitions based on context
1.	book	s.th to get information from.	to reserve.
2.	break	to stop the flow of s.th.	a short period of rest.
3.	case	a large box.	a particular situation.
4.	course	lessons on one subject.	a continuous movement.
5.	crazy	mad.	very interested in something.
6.	economical	referring to economy.	not wasteful
7.	graduate	complete a university degree.	one who has completed a university degree.
8.	like	to be fond of.	similar.
9.	look	seem	to give attention in seeing.
10.	occupation	ruling a country.	career, job or employment.
11.	post	to send a letter.	the official system for carrying letters.
12.	pretty	beautiful.	quite.
13.	record	to write down so that it'll be known.	the highest or lowest level.
14.	right	side or direction.	just or morally good.
15.	test	to examine.	exam.
16.	thought	past of think.	idea.
17.	well	a place where water comes from under ground.	in the right manner.
18.	work	to do an activity which uses power.	job.

List 4.2 shows examples of teachers' definitions which aren't in line with Relation. After analyzing the definitions of words given by teachers according to the maxim of relation, we can conclude that (14.33%) of the word definitions given by teachers wouldn't go with the intended meaning in the reading comprehension but they are different meanings. This will increase the level of difficulty as those definitions don't match the intended meaning in the context.

To measure the percentages of definitions of new words against the maxim of quantity, the definitions for each word from 30 teachers were evaluated against quantity. The results were divided by the total number of definitions and multiplied by 100%. Results show that more than half of the word definitions given by teachers are in line with the maxim. They are (217.5, 56.34%) in contrast with (168.5, 43.65%). Based on the findings, (217.5, 56.34%) of the word definitions provide adequate information as is required to enable students to understand the points being made. Examples of teachers' definitions which are enough are presented in the following list.

List 4.3. Examples of teachers' definitions which are adequate.

No.	New Word	Teachers' definitions
1.	agree	to say yes.
2.	behave	to act.
3.	company	firm.
4.	delay	to do something later than planned.
5.	disease	illness.
6.	estimate	calculate.
7.	expert	a person with special skills and knowledge.
8.	form	shape.
9.	global	referring to the globe or the whole world.
10.	help	aid.
11.	lack	shortage.
12.	nervous	angry.

List 4.3 shows examples of teachers' definitions which are adequate. It's clear that these definitions are enough to understand the new words and this will certainly lower the level of difficulty. Consequently, this may lead them to the main purpose. It's clear that teachers, who gave these definitions, have adequate information to explain word meanings thoroughly. However, (168.5, 43.65%) of the word definitions violate the maxim. Examples of teachers' definitions which are not adequate are presented in the following list.

List 4.4. Examples of teachers' definitions which are not adequate.

No.	New Word	Teachers' definitions	Enough definitions
1.	competitor	person.	person who competes in a race, contest, etc.
2.	fair	opposite of unfair.	free from dishonesty.
3.	frozen	of freeze.	very cold.
4.	fuel	oil.	material that is used for producing heat.
5.	muscle	a piece of flesh.	a piece of flesh inside the body which you can tighten or relax to produce movement.
6.	optimistic	opposite of pessimistic.	is having the feeling that things will end well.
7.	triangle	figure.	a flat figure with 3 sides and 3 angles.
8.	turn	move.	to move round a fixed point.
9.	uniform	the same.	a certain type of clothing all members of a group wear.
10.	vaccine	substance.	substance that is given to people in order to protect them against a particular disease.
11.	within	inside.	inside the limits of, not beyond than.
12.	youth	of young.	the period of being young.

List 4.4 shows examples of teachers' definitions which are not adequate. It is noticed that these definitions aren't adequate to understand the definitions of the new words. This will increase the level of difficulty in learning words.

To measure the percentages of definitions of new words against the maxim of manner, the definitions for each word from 30 teachers were evaluated against it. The results were divided by the total number of the definitions and then multiplied by 100%. Statistical analysis was done for the sub-maxims under manner. Results show that (243.72, 63.13%) of the word definitions given by teachers aren't in line with the maxim of manner in contrast with (142.28, 36.86%). Results show that the violation of manner refers to the sub-maxims under manner. (231.74, 60.03%) of the teachers' explanations of word meanings aren't clear. Examples of teachers' definitions which aren't clear are presented in the following list.

List 4.5. Examples of teachers' definitions which are not clear.

No.	New Word	Teachers' definitions	Clear definitions
1.	ambitious	full of ambition.	having a desire for success.
2.	appearance	the act of appearing.	the act of being seen.
3.	assessment	the act of assessing.	judgement.
4.	commercial	referring to commerce.	likely to produce profit.
5.	export	the opposite of import.	selling & transporting of goods to another country.
6.	invitation	the act of welcoming others.	the act of asking s.b. to an occasion.
7.	rocky	of rocks.	s.th full of rocks.
8.	skilled	of skills.	having necessary knowledge to do sth.
9.	suggestion	s.th suggested.	s.th proposed.
10.	supporter	who supports.	a person who gives attendance to.
11.	trader	a person who trades.	a person who buys and sells goods.
12.	typical	like us	showing the usual behavior or manner.

List 4.5 shows examples of teachers' definitions which are not clear. The violation refers to the language used by teachers. It is noticed that the definitions of the words contain the new words that students have to learn. So this will increase the level of difficulty in learning because students won't understand the definitions. However, results show that (154.26; 39.96%) of the teachers' explanations of words are clear. Examples of clear teachers' definitions are presented in the following list.

List 4.6. Examples of clear teachers' definitions

No.	New Word	Teachers' definitions
1.	agree	to say yes.
2.	box	container.
3.	committee	a group of people appointed to attend to special business.
4.	department	section into which an organization is divided.
5.	drought	a long period of dry weather.
6.	efficient	working well without waste.
7.	finish	end.
8.	gold	valuable substance.

9.	honest	not likely to lie or to cheat.
10.	proposal	a plan that is suggested an offer.
11.	sex	being male or female
12.	target	aim

List 4.6 shows examples of clear teachers' definitions. These definitions will help students understand the new words.

Results show that (255.7, 66.24%) of the teachers' definitions aren't brief. Examples of teachers' definitions which are not brief are presented in the following list.

List 4.7. Examples of teachers' definitions which are not brief

No.	New word	Teachers' definitions	Brief definitions
1.	able	having the power, skill, strength, knowledge necessary to do s.th. If you are unable, you don't have the previous mentioned qualities.	having the power to do s.th.
2.	bill	a list that contains the things that are bought and their prices. It's issued by the employee of a shop or supermarket. Each item a person bought has a special number which is different from another item. Every customer is given one. If you find something wrong in the items you bought, you can ask the people who work there to correct it and you will get a new bill.	a list of things bought and their prices.
3.	carving	the act of cutting wood or stone in order to make a special shape or form so you can work as a sculptor. This activity enables you to make many shapes for famous people such as singers, dancers, painters, etc. and you yourself may become famous if your work is sold all over the world.	the act of cutting wood or stone to make a special shape.
4.	conclude	to come to a closing part of s.th. After arranging all the related ideas, to come to believe after consideration of known facts, to judge or make a decision, to come to an agreement that introduces a changed state of affairs which is likely to last for sometimes.	come to an end.
5.	delivery	the act of moving something from one place to another and carrying it to its destination. This activity might be done	the act of carrying s.th. from one place to

		individually or officially according to rules or customs in a country.	another
6.	factory	a building where goods are made, manufactured or produced. These goods can be sold to others such as shops, supermarkets to deliver them for consumers. Many people work there to get money.	a building where goods are made.
7.	introduce	to make known for the first time to each other or someone else especially by telling two people each other's names. The two people don't know each other before that. They might meet in a special occasion such as a wedding party, birthday party, etc. Later, the people who are introduced to each other can call, mail or visit each other.	to make known for the first time to each other.
8.	killer	a person who kills or has killed someone. This person commits a crime. So he/she will be sent to prison for a certain period.	a person who kills someone.
9.	leader	a person who leads others in different activities such as group work, projects, etc. This person can arrange and distribute the work to the members.	a person who guides a group.
10.	lecture	a talk or speech to a group of people especially students at a college, university or institution. It's about a specific topic which is lasted for about 45 minutes or more. Those who attend it always take notes and the person who gives it is called lecturer.	a talk or speech to a group of people.
11.	license	one of the official documents issued by one of the departments of the government. This official document enables you to do things freely such as buying goods, driving a car and opening a shop. You need to renew it according to the law of the country. You can't do the above mentioned things without having a license.	official documents showing that permission has been given to do something.
12.	mystery	many different things which can't be explained. They are beyond our understanding. So they are secrets. These things can be related to science, life, death, the appearance of ships, etc.	s.th. that can't be explained.
13.	passport	a small book given by government to enable a person to move from one country to another freely. This document has the person's picture, personal details, etc. If you don't have this document, you can't enter a country.	a small official book given by the government to the citizen to be allowed to enter other countries.

14.	specialist	a person who has interests, skills, special ways, good ideas, priorities, knowledge in a limited field of work or study. You can get benefit from this person.	a person who has knowledge in a field
15.	trade	to buy or sell goods in the form of a particular business or industry within a country or between countries. Traders are the people who work in a particular business or industry. The people who do this get much money by selling at high prices.	to buy or sell goods.

List 4.7 shows examples of teachers' definitions which are not brief. Teachers give more information and overburden the students with unnecessary information. This will increase the level of difficulty. Whereas, (130.3, 33.75%) of the word definitions given by teachers are brief. Examples of brief teachers' definitions are presented in the following list.

List 4.8. Examples of brief teachers' definitions

No.	New word	Teachers' definitions
1.	admire	respect.
2.	behave	to act.
3.	care	protection.
4.	direct	straight.
5.	fade	to lose strength, colour, etc.
6.	gift	present.
7.	inform	tell.
8.	largely	to a great degree.
9.	main	chief.
10.	organize	arrange.
11.	particularly	especially.
12.	reduce	to make something less.
13.	set	to start.
14.	trouble	problem, difficulty.
15.	vacation	holiday.

List 4.8 shows examples of brief teachers' definitions. These definitions will increase the level of comprehension.

On the whole, the definitions of the words given by teachers are related and adequate which will facilitate vocabulary learning. However, they are not brief and clear which may increase the level of difficulty of the words. This answers the fourth research question: What's the level of difficulty of word meanings given by teachers based on the conditions of quantity, relation and manner? After discussing teachers' definitions, it's significant to move to discuss the findings concerning Nation's Vocabulary Levels Test. This is based on the assumption that students' achievement in the tests reflects the level of learning vocabulary items in the textbooks.

4.6 Question 5: To what extent does students's achievement reflect the level of vocabulary in the textbooks?

Vocabulary testing is now receiving the attention it deserves (Chapelle, 1994 & Perkins & Linville, 1987). This increased attention in testing can be interpreted to mean that it is necessary to get knowledge about specific parts of language learners' proficiency and achievement. The results of the tests can be used effectively for diagnostic placement and curriculum-design purpose where learners should be given help with vocabulary learning (Laufer & Nation, 1999). According to Nation (1983 & 1990), this is an important decision in terms of the cost-effectiveness of the use of class time because high-frequency vocabulary is taught differently from low-frequency vocabulary. Nation's Vocabulary Levels Test is a standardized test to measure the size of the learner's vocabulary about the 2,000, 3,000, 5,000, 10,000 word levels and the academic words. Each frequency level of the test includes ten blocks and each block includes 6 words and three definitions. Students have to match words with their meanings.

In order to find out if the students' achievement reflected learning the vocabulary items of the textbooks, Nation's Vocabulary Levels Test were administered with the 11th & 12th graders. 25 students from the 11th grade and another 24 students from the 12th grade were chosen randomly from 18 classes of both 11th & 12th grades in Widad Secondary School for girls, Hebron City. Those students were asked to match words with their meanings. Students' answers were checked based on true/false answers. Each section of the test was corrected out of 30 because there were 30 questions per section. Students' scores on the Vocabulary Levels Test were analyzed statistically. The main units of the analysis were the scores of the 11th & 12th graders on a set of tests: 2,000, 3,000, 5,000, 10,000, and AWL Vocabulary Levels. So for each student, there were 5 scores. The statistical analysis for scores is shown in table 4.8.

Table 4.8. Mean scores for the 11th & 12th graders on Nation's Vocabulary Levels Test

Level	11 th grade (n=25)	12 th grade (n=24)
2,000	24.64	25.25
3,000	21.32	22.04
AWL	15.92	17.83
5,000	11	15.62
10,000	9.04	13.66
Average	16.38	18.88

Table 4.8 shows the mean scores for the 11th & 12th graders on Nation's Vocabulary Levels Test. By looking across each row in table 4.8, we can see how the scores on the test change because the student's general knowledge of vocabulary

increases. For example, the total score on all five levels of the test rises from (16.38) for 11th graders to (18.88) for 12th graders. So there is improvement towards learning more vocabulary items with a higher class.

This trend of increase is not only presented in the totals for each frequency level but also for each level of the test for each group. For example, at the 2,000-word level, the 11th graders' score is (24.64) and the 12th graders' score is (25.25). The result is satisfying because it indicates that the 11th and 12th graders are moving toward learning more vocabulary items in all frequency levels.

However, there is a decrease in the score for each group at each of the levels of the test. For example, at the 2,000 level, the 11th graders score (24.64), at the 3,000 level (21.32), at the AWL level (15.92), at the 5,000 level (11) and at the 10,000 level (9.04). This decrease is also seen clearly in the 12th grade. The means are as follows for each level respectively: (25.25, 22.04, 17.83, 15.62, and 13.66). This is expected because students know more high frequency words and less in the other levels of word frequency. This is natural because it matches the sequence of learning vocabulary-high frequency words are learnt before low frequency words and students have learnt the vocabulary items that they are required to learn.

A tentative conclusion could be made from the scores of Nation's Vocabulary Levels Test is that there is quite a big difference in vocabulary size between high and low frequency words on the one hand and high and AW on the other. For example, the mean is (24.64) on the 2,000 level in contrast to (15.92) on the AW and (9.04) on 10,000 level in the 11th grade. This is also seen in the 12th grade. The mean is (25.25) on the 2,000 level in contrast to (17.83) on the AW and (13.66) on 10,000 level.

By analyzing the results, we can conclude that students learn the words that they are supposed to. The results show that they perform quite well at the high

frequency levels. It means that 11th & 12th graders learn the vocabulary in the first and the second thousand frequency levels. These findings are supported by the findings of Tadimitsu (2005), Laufer & Nation (1999), Read (1988), Laufer, Edler, Hill & Congdon (2004), Chui (2005), Shan (2007), Zimmerman (2004) & Nation (2006) and aren't in line with Miyagik (2004) who found that students learn only half of the second 1,000 most frequent words of English.

The results reveal that students' scores decrease at the levels of low frequency words and the academic words. This means that students of the 11th & 12th grades don't learn words in lower levels of word frequency and academic words as they learn in the levels of high frequency. These findings are supported by the findings of Tadimitsu (2005), Laufer & Nation (1999), Lam (1997), Read (1988), Laufer, Edler, Hill & Congdon (2004) & Nation (2006). Based on the findings, students' scores on the Vocabulary Levels Test reflect learning the vocabulary of the textbooks of the 11th & 12th grades because the results about frequency reveal that the 11th & 12th grades books contain high frequency words in the first and second thousand levels and this decreases in other levels of frequency and academic words. and the Vocabulary Levels Test show what levels of vocabulary students already know and which level they should focus on next. This result is satisfying because it indicates that the 11th & 12th graders are in line with the vocabulary items of the books and they have learnt the words that they are supposed to. This answers the fifth research question: To what extent does students' achievement reflect the level of vocabulary in the textbooks? After discussing the students' achievement on Nation's Vocabulary Levels Test, it is important to talk about the distribution of the grammatical categories in the target textbooks.

4.7 Question 6: How far do vocabulary items represent a natural language sample based on the distribution of the grammatical categories of words in a standard dictionary?

It's assumed that the closer the sample to natural English, the better for students to learn the language. The distribution of the grammatical categories in a dictionary is a reflection of that distribution found in natural English used by native speakers. Consequently, by measuring the distribution of the grammatical categories in the 11th & 12th grades and comparing the results with those in a standard dictionary, we can come to a conclusion about the extent to which each textbook represents the natural language. In order to evaluate the distribution in the 11th & 12th grades, statistical analysis was made for the grammatical categories of the words. The grammatical category for each word in the 11th & 12th English textbooks is written beside each word in the word lists. The grammatical categories which were evaluated in this study were nouns, adjectives, verbs, adverbs and prepositions. The number of each grammatical category was divided by the total numbers of all grammatical categories in each grade and then the results were multiplied by 100%. Then the results were used to compare the distribution of the grammatical categories in the 11th & 12th grades on the one hand and the Oxford Dictionary on the other. The material used as a reference was Oxford Dictionary because it contains the exact percentage for each grammatical category. The following figure shows the categorization of the vocabulary items.

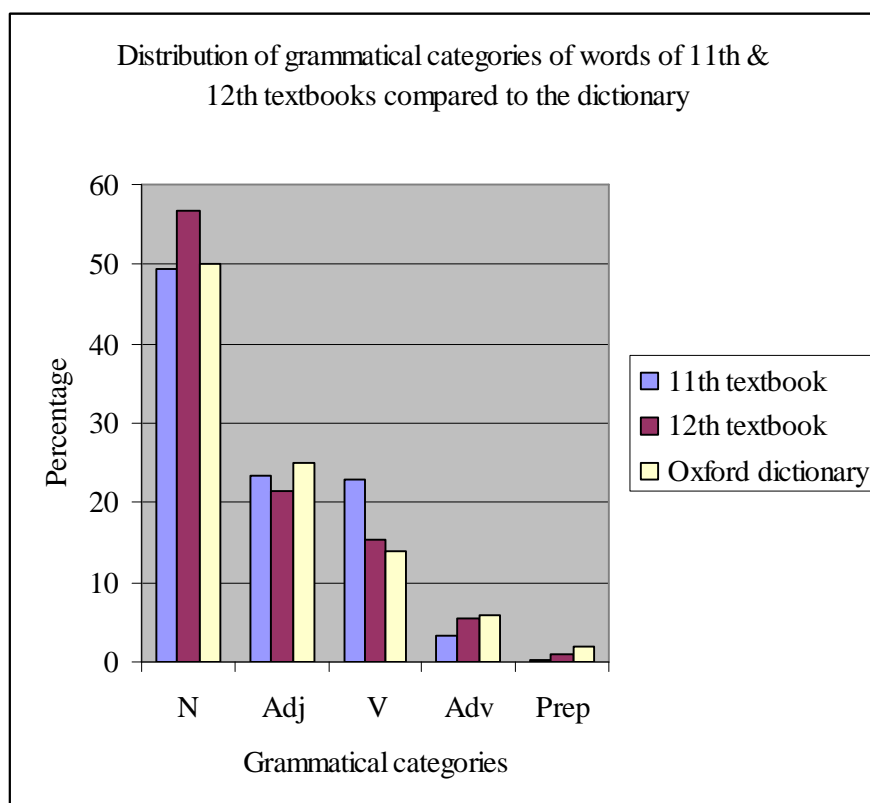


Figure 4.1. Distribution of the grammatical categories of the words in the 11th & 12th word lists compared to *Oxford Dictionary*.

Figure 4.1 shows the distribution of the grammatical categories of the words in the 11th & 12th word lists compared to *Oxford Dictionary*. The figure shows that the natural distribution of the grammatical categories is as follows: *nouns*, *adjectives*, *verbs*, *adverbs* and *prepositions*. This distribution is also followed in the textbooks of the 11th & 12th grades. The results show that nouns in the dictionary and the 2 textbooks come at the top as half of the words are nouns. Adjectives come the second in the dictionary and the 2 textbooks (25%). Verbs come the third because they are about seventh of all categories. Adverbs and prepositions come the last because they are about (8%) of all categories. Comparing the distribution of the dictionary to the target texts, there is a match except for the verbs in the 11th textbook. The verb in the

11th textbook is (23%) while the natural sample is (14%). This might refer to the interest of the syllabus designers to equip students with large number of verbs.

4.7.1 Nouns

As can be seen, results show that nouns come at the top (50%) in the 11th textbook & (56.78%) in the 12th textbook. This suggests that about half of the words in the 11th textbook are nouns which match the dictionary distribution. However, slightly more than half of the words in the 12th textbook are nouns. These findings support the findings of Chuang (2005) & Weir & Ozasa (2007) who found that nouns were the highest of all categories. Nouns were (54.20%) in Chuang's study (2005) and (56.5%) in Weir & Ozasa's (2007).

4.7.2 Adjectives

Results show that adjectives ratio in the 11th textbook is a little bit higher than that of the 12th textbook (23.39%; 21.50%). This proves that the textbooks represent a natural sample compared to the dictionary ratio (25%) which is in line with the former studies.

4.7.3 Verbs

Moving to verbs, results show that the 12th textbook represents a natural sample (15.44%). This contrasts with the 11th textbook which has (23%). However, this rise in the percentage of the verbs in the 11th textbook doesn't match the ratio in natural English. There is great emphasis on verbs in the 11th grade. There is a similarity in the distribution of the verbs in the 12th textbook and the textbooks

studied by Chuang (2005) & Weir & Ozasa (2007) which represent a natural sample in contrast with the distribution of the verbs in the 11th textbook.

4.7.4 Adverbs

Concerning adverbs, results show that the textbooks include low proportion of adverbs (3.21% & 5.42%). This seems natural according to the dictionary distribution (6%). This is understandable because students have already learned an adjective. Therefore, it is not probably necessary to include the adverb for that adjective as a separate entry as recommended by Davies & Face (2006) and as found by Chuang (2005) & Weir & Ozasa (2007).

4.7.5 Prepositions

As for prepositions, results show that (0.22% & 0.83%) are seen in the word lists. The prepositions are not included in the word lists because they are presented and explained in the textbooks and workbooks through relevant exercises. This small amount of prepositions in the 11th and 12th word lists matches that percentage in the dictionary (2%) as mentioned by Weir & Ozasa (2007).

In conclusion, there is a similarity in the distribution of the grammatical categories in the 11th & 12th textbooks on the one hand and the two textbooks together match the dictionary on the other hand. However, the distribution of the verbs in the 11th textbook exceeds the natural sample. This answers the sixth research question: How far do vocabulary items represent a natural language sample based on the distribution of the grammatical categories of the words in a standard dictionary?

4.8 Summary

Chapter four discussed the findings about the following topics related to the vocabulary items in English for Palestine, the 11th & 12th grades. The results about the criteria for vocabulary selection in terms of frequency, coverage and gradation in the target textbooks were presented. The findings about the word density in reading comprehension were discussed and compared with the word density found after administering the test with the 11th & 12th graders. The results about the evaluation of the teachers' definitions of the new words of 11th grade were presented. The findings about the students' scores on Nation's Vocabulary Levels Test were discussed. Finally, the findings about the distribution of the grammatical categories in the target textbooks were covered and compared with the distribution found in a standard dictionary.

Chapter Five

Conclusion & Recommendations

This chapter will sum up the major findings of the study. Then, it will discuss the recommendations. Finally, it will point out possible areas for further research.

5.1 Summary of the major findings of the study

The major findings of the study include the criteria for vocabulary selection in materials, word density, the definitions of vocabulary items given by teachers, students' vocabulary levels and the distribution of the grammatical categories.

1. Concerning vocabulary selection, the two textbooks provide a sufficient input in terms of high- frequency words. The textbook of the 11th grade has (68.65%) in the first and the second 1,000 levels and the textbook of the 12th grade has (55.32%) in the first and the second 1,000 levels. Consequently, such common words are covered in the target texts. This finding meets other researchers' recommendations in the literature. Scholars and experts support and agree that 2,000 words seem to be the cutting line of the vocabulary learning targets. According to Nation (1982), we can expect to meet these high frequency words in almost any book we read. They form the basis of most elementary and intermediate English courses and many series of simplified reading books and they could be covered in a school teaching program over three to five years. Results show that a higher proportion of the first 2,000 words is found in the 11th grade than those in the 12th grade and words of the third, fourth and fifth word frequency levels are seen more clearly in the 12th grade rather than in the 11th grade. This is expected because it goes with the order of learning vocabulary-

high frequency words are learnt before low frequency words. However, students will encounter greater difficulty in reading academic texts at the university level because (80%) of the academic words which are used in academic texts are not included in the textbooks of the 11th & 12th grades.

2. It has been found that more than half of the words of the textbooks have a high coverage. As a result, students of the 11th and 12th grades are exposed to (60%) of the words that are used to define all dictionary entry words. All the explanations in the dictionary are limited to these 2,000 words which are found in the coverage list. Therefore, mastering words of the 2,000 coverage list helps students understand and learn new words by looking up the words in the dictionary.

3. Gradation from the 11th grade to the 12th grade is progressive in the first and the second thousand levels whereas it is regressive in the third, fourth and fifth thousand levels. As a result, students in the 12th grade have no difficulty because they have learnt more words in the first and the second thousand levels when they were in the 11th grade and they need to expand their vocabulary items in other levels of word frequency in the 12th grade.

4. In terms of lexical density, it has been found that the ratio of the unknown words to the known in the textbooks of the 11th & 12th grades is (3%) which is within the norm recommended in literature (2%). So we expect that the word density of the texts might increase students' comprehension. However, there is a gap between word density norm which is recommended by experts (2%) and the word density found after asking the 11th & 12th graders to underline all the unknown words that they didn't

understand in the reading texts. So the word ratio exceeds the norm (2%) in all frequency levels in the 11th and 12th grades (9.21% & 15.34%). In addition, the word density in the first 1,000 and the second 1,000 frequency levels in both 11th & 12th grades exceeds the word density in the 3,000, 4,000 and 5,000 frequency levels. This word density would decrease the speed of comprehension. Students in the 11th & 12th grades will find reading more problematic.

5. It has been found that teachers' definitions of the new words fit with the Grice's maxims of quantity and relation. (85.66%) are related and (56.34%) are adequate. However, (36.86%) of teachers' definitions are in line with the maxim of manner in contrast with (63.13%). To be more specific, (39.96%) of the teachers' definitions are clear in contrast with (60.03%) and (33.75%) of the teachers' definitions are brief in contrast with (66.24%).

Violation of the maxim of manner would decrease the students' comprehension and make learning vocabulary items more problematic. However, the effective way of communicating word meanings should be clear and brief.

6. According to the scores of Nation's Vocabulary Levels Test, it has been found that students' achievement reflects the level of vocabulary in the textbooks and they get exposed to the high frequency words as far as the textbooks are the only source of the vocabulary learning. Students generally have a good performance at all word frequency levels. However, there is a difference in vocabulary size between high and low frequency words on the one hand and high frequency words and AW on the other as students perform well at the high frequency levels and badly at the low frequency levels and AW. This result is not surprising because students have learnt more words

in the higher frequency levels and less words in the lower frequency levels and academic words.

7. There is similarity in the distribution of the grammatical categories between the textbooks of the 11th & 12th and the dictionary. The natural distribution of the grammatical categories shows nouns at the top followed by adjectives, verbs, adverbs and prepositions. This suggests that the vocabulary items in the textbooks represent a natural sample. This is based on the assumption that a standard dictionary represents the natural distribution of the grammatical categories in English. However, the ratio of the verbs in the 11th textbook (23%) exceeds the ratio in the dictionary (14%).

5.2 Recommendations

Based on the findings of the study, the following recommendations can be addressed to the following:

5.2.1 For the Syllabus Designers

1. Syllabus designers should have a thorough grasp of the increasing development in the field of vocabulary. So their decisions will be well-informed about what words to select for inclusion in the textbooks.
2. Syllabus designers should choose texts with lower level of word density to be included in the textbooks. Therefore, students will achieve adequate text comprehension.
3. Syllabus designers should supply each reading text with a glossary. So students will get better understanding.

5.2.2 For the Ministry of Education

1. Workshops should be held to inform teachers about the importance of referring to dictionaries by both teachers and students. The word definitions will be clear, adequate, brief and related to the context.

5.2.3 For Teachers

The findings of the study provide classroom teachers with the information about how to use the textbooks more effectively. In Palestine, textbooks are the principal source of lexical input for vocabulary learning.

1. Teachers should engage students in vocabulary activities to expand the size of the vocabulary. These activities include role play, retelling, note-making, etc. High frequency words should be taught explicitly and teachers should expose students to low frequency words through activities.
2. Teachers should keep the issue of word density in mind when guiding students in choosing extra materials for extensive reading.
3. Teachers should make their definitions of vocabulary items in line with relevance, clarity, brevity and quantity.
4. Teachers should test their student's achievement and interpret those tests to see where students stand in their vocabulary development. This information is then used to plan future teaching, to motivate learning and help individual learners.
7. Teachers should encourage students to use dictionaries.

5.2.4 For Students

1. Students should revise the vocabulary items they learn in lower classes to decrease the ratio of unknown words. This can be done through group work.

2. Students should learn the vocabulary items (key words) of the books.

5.3 Suggestions for Further Research

Some recommendations for further research are suggested.

1. This study evaluated the vocabulary items in the secondary level, the 11th & 12th grades. Further research can be done to compare and contrast the lexical evaluation of different levels. It would be more comprehensive and larger scale research if more textbooks from different levels were evaluated as data samples.
2. The research data are the words in the word lists of the Student's Book. Next research should go beyond this to investigate the vocabulary items in the vocabulary section in the Workbook and also to look at the actual contexts where the new words are presented in order to look for more precise lexical features.

5.4 Summary

It is hoped that this study will stimulate further research in the area of vocabulary of the textbooks so that many teachers of English can have better insights about vocabulary items. It is also hoped that the methodology can demonstrate a few ways to examine words in a textbook and the result can guide teachers to effectively use the textbooks. Finally, it is hoped that this study may be valuable in measuring the usefulness of what is taught.

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Appendix 1

Word density in each reading texts in the 11th & 12th grades

Number of the text	Number of all words in the 11th text	Number of unknown words in the 11th text	Word ratio in 11 th texts %	Number of all words in the 12th text	Number of unknown words in the 12th text	Word ratio in 12 th texts %
1	319	10	3.13	438	17	3.88
2	421	14	3.32	530	15	2.83
3	330	15	4.54	431	17	3.94
4	545	19	3.48	557	22	3.94
5	414	12	2.89	460	14	3.04
6	464	20	4.31	601	25	4.15
7	307	14	4.56	431	10	2.32
8	486	17	3.49	589	12	2.03
9	365	10	2.73	540	24	4.44
10	430	11	2.55	591	21	3.55
11	297	13	4.37	430	17	3.95
12	483	14	2.89	624	14	2.24
13	354	11	3.10	428	12	2.80
14	414	8	1.93	639	21	3.28
15	430	8	2.35	378	13	3.43
16	483	7	1.44	666	18	2.70
17	335	13	3.88	362	15	4.14
18	470	14	2.97	620	21	3.38
19	377	9	2.38	404	12	2.97
20	467	13	2.78	630	17	2.69

ملخص الدراسة

تهدف هذه الدراسة إلى تقييم الكلمات الواردة في قائمة الكلمات في كتابي اللغة الإنجليزية للصفين الحادي عشر والثاني عشر. فقد قيمت الكلمات حسب المعايير المعمول بها في اختيار الكلمات: مستوى تكرار الكلمة وقدرة الكلمة على أن تحل محل كلمة أخرى والتسلسل ما بين الصفوف. واستخدمت الأدوات التالية: قائمة الخدمة العامة وقوائم ثورنديك و لورج وقائمة الكلمات الأكاديمية لتحديد مستوى تكرار الكلمة. واستخدمت قائمة الاشتغال في قاموس لونج مان لتقييم قدرة الكلمة على أن تحل محل أخرى

وقد هدف التحليل إلى عرض مستوى صعوبة الكلمات المختارة والتسلسل ما بين الصف الحادي عشر والصف الثاني عشر وتقييم نسبة الكلمات الجديدة في النص إلى مجموع كلمات النص ومقارنة نسبة كل من الأفعال والأسماء والصفات وحروف الجر والعروف الموجودة في الكتابين مع النسب الموجودة في قاموس أوكسفورد. وقيمت معاني الكلمات التي أعطاهها معلمو اللغة الإنجليزية للصف الحادي عشر بناء على مبادئ غرايس وهي كفاية المعلومات وصحتها وارتباطها بالكلمة إضافة إلى الاختصار والوضوح. ومن ثم قيمت مدى تحصيل طلبة الصف الحادي عشر والثاني عشر في الكلمات من خلال استخدام امتحان نيشن ذي المستويات الخمسة.

وقد أظهرت النتائج أن الكلمات موضوع الدراسة تعكس صورة واقعية عن نسبة الأسماء والصفات والظروف وحروف الجر للصفين والأفعال للصف الثاني عشر المعمول بها في القاموس على اعتبار أن القاموس يمثل معياراً للناطقين بها. وفيما يتصل بنسبة الأفعال الموجودة في كتاب الصف الحادي عشر، فقد أظهرت النتائج أن هذه النسبة تتجاوز النسبة الموجودة في القاموس. وقد أظهرت النتائج أن الكتابين يحتويان على نسبة عالية من الكلمات ذات المستوى العالي من التكرار والاشتغال بينما سيواجه الطلبة مشاكل في قراءة النصوص الأكاديمية. أما بالنسبة إلى التسلسل، فقد أظهرت الدراسة أن التسلسل في الكتابين يسير تصاعدياً في أول مستويين بينما يسير تنازلياً في مستوى الألف الثالث والرابع والخامس. وأما فيما يتعلق بنسبة الكلمات التي لا يعرفها الطلبة إلى مجموع الكلمات الموجودة في النص، فقد أظهرت النتائج أن هنالك فجوة كبيرة بين المعيار والحقيقة حيث أن نسبة الكلمات في الحقيقة تجاوزت المعيار الموصى به من قبل الخبراء لذلك سيواجه الطلبة صراعاً كبيراً في فهم النصوص. أما فيما يتعلق بمعاني المعلمين، فقد أظهرت الدراسة أن معاني المعلمين تتسجم مع مبادئ غرايس من حيث كفاية المعاني وصحتها وارتباطها بالكلمات بينما أظهرت الدراسة أن المعاني ليست مختصرة وواضحة. وختاماً فقد أظهرت النتائج أن تحصيل الطلبة في الامتحان ذي المستويات الخمسة يعكس كلمات

الكتابين للصف الحادي عشر والثاني عشر. وقد أوصت الدراسة بإجراء دراسات أخرى في مجالات أخرى من الكلمات.