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Assessing the Vocabulary Load in Spine 5

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the
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(قُلْ لَوْ كَانَ الْبَحْرُ مِدَادًا لَّكَلِمَاتِ رَبِّي لَنَفِدَ
الْبَحْرُ قَبْلَ أَنْ تَنْفَدَ كَلِمَاتُ رَبِّي وَلَوْ جِئْنَا
بِمِثْلِهِ مَدَدًا * قُلْ إِنَّمَا أَنَا بَشَرٌ مِّثْلُكُمْ يُوحَى
إِلَيَّ أَنَّمَا إِلَهُكُمُ إِلَهُهُ وَاحِدٌ فَمَنْ كَانَ يَرْجُوا
لِقَاءَ رَبِّهِ فَلْيَعْمَلْ عَمَلًا صَالِحًا وَلَا يُشْرِكْ
بِعِبَادَةِ رَبِّهِ أَحَدًا)

الكهف الآيات (١٠٩-١١٠)

Dedication

*This work is dedicated to my mother,
soul of my father and those who taught me.*

Acknowledgement

My thanks and gratitude to Allah, the almighty for giving me the strength, the vision and ability to successfully undertaken this program.

I would like to express my sincere thanks to my husband Mustafa Alshreef who has patiently supported and encouraged me through this process.

I would like to express my thanks to my children for their faithful support.

I would like to convey my appreciation and great acknowledgement to supervisor Dr. Ibrahim Mohammed Alfaki, for helpful suggestion, criticisms and comments.

Abstract

This study aims to shed light on vocabulary load in spine 5 in order to investigate its characteristic and limitations according to usefulness of words and how they are presented.

In this study the researcher uses a vocabulary list from spine 5 teacher's book and the first three high frequency word lists from British National corpus and spine 5 pupil's book as a tool for collecting data. Research questions: how many new words are there in spine 5. How are the BNC first three lists related to spine 5 word list. How many times each word is recycled, how vocabulary is recycled.

Finding: high percentage of low frequency words which are regarded as uncommon words. Also spine 5 new words are not given enough recycling. The results show that most recycled words have massed recycling which doesn't help in learning vocabulary.

On the basis of the main findings the researcher recommends English teachers and syllabus designers as follows:

Teachers need to have reference list to judge whether a particular word deserves attention or not.

Teachers should supply the texts with activities that will give learners exposure to target vocabulary that is not sufficiently present in the book.

Syllabus designers should have lists to refer to when they consider the vocabulary.

Syllabus designers should consider vocabulary as the first component of language course and use systematic criteria in vocabulary selection.

Syllabus designer should provide text book with systematic recycling for new vocabulary items by designing more encounters with words which are important for learner to acquire language.

الملخص

هذه الدراسة تهدف لتسليط الضوء على المفردات الجديدة التي يحتويها كتاب (Spine 5) الذي يدرّس لتلاميذ الصف الثاني الثانوي من أجل استقصاء نوعية هذه الكلمات وكيفية عرضها للتلميذ.

في هذه الدراسة استخدمت الباحثة قائمة الكلمات الجديدة من كتاب المعلم والثلاث قوائم الأولى للكلمات الأكثر شيوعاً المقتبسة من مجموعة الوثائق القومية البريطانية بالإضافة إلى كتاب التلميذ كأدوات لجمع المعلومات.

أسئلة الدراسة:

كم عدد الكلمات التي قدمت ككلمات جديدة ليدرسها التلميذ؟ هل هذه الكلمات موجودة في الثلاث قوائم الأولى للكلمات الأكثر شيوعاً المقتبسة من مجموعة الوثائق القومية البريطانية. كم عدد تكرار كل كلمة جديدة في الكتاب كيف كان تكرار هذه الكلمات.

توصلت الباحثة إلى أن كتاب التلميذ يحتوي على عدد كبير من الكلمات الأقل شيوعاً وأن أغلب هذه الكلمات لم يتوفر لها التكرار الكافي وأن الكلمات المكررة لم توزع توزيعاً جيداً على أبواب الكتاب وهي غالباً ما توجد في باب واحد أو حتى درس واحد مما يعني أن هذه الكلمات لن يتعرض لها التلميذ في دروس أخرى.

بناءً على هذه النتائج أسدت الباحثة بعض التوصيات التي يمكن تلخيصها فيما يلي:

يجب أن يكون هناك قوائم مرجعية يستعين بها المعلم كي يعرف إذا ما كانت الكلمة تستحق الانتباه أم لا وأن يقوم المعلم بنشاطات إضافية من شأنها أن تعرض الطالب للكلمات المستهدفة بالدراسة التي لم تجد تكراراً كافياً في الكتاب.

يجب أن يستعين مؤلفي المناهج بقوائم مرجعية للسيطرة على المفردات المستهدفة بالتعلم.

يجب على مؤلفي الكتب الدراسية أن يعتمدوا مفردات اللغة كعنصر أساسي في تكوين المنهج وأن يستعملوا معياراً محدداً وواضحاً لاختيار المفردات.

يجب على المؤلفين الاهتمام بعرض الكلمات بطريقة متكررة تمكن الطالب من اكتساب اللغة.

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Chapter One

Introduction

1.0 Background

Teaching and learning English language has started in Sudan since the British colonization. English is taught as a foreign language at basic and secondary school. The English language now, all over the world is not only the means of communication but also it has become an essential requirement for success at high education and finding job. Sudan like many countries where English is taught as a foreign language, teaching and learning depend heavily on textbooks which are designed to help learners in developing reading skills. Textbooks, therefore, represent the most important factor that have a big influence on achieving the goal of the textbook teaching. Hutchinson and Torres (1994:327) state that "*textbook is a visible and workable frame work around which the many forces and demands of the teaching –learning process can cohere to provide the bases at security and accountability that is necessary for purposeful action in the classroom*". The textbook is the best guide for effective learning and acquiring vocabulary. Student in Sudan rely completely on the textbook to support their learning, Parish (2004:227) describes the benefit of using textbook and says "*textbook can meet learners need on expansions of having something concrete to work from and take home for further study*". Due to this importance of textbook analyzing and evaluating textbook contents before and after to be in use is a common activity in the field of teaching and researching English as a foreign language .The process of producing English language textbooks in Sudan has passed through a series of changes in search for a satisfactory standard of effective teaching and learning. Thus, a close look at textbook contents is needed to enable teachers exploit it usefully.

The purpose of this study is to examine the vocabulary load of spine 5 which is taught to students of second year at secondary school level. Spine 5 has been in use since 1996 as the main tool in teaching and learning English language. The book aims to develop all language skills with special emphasis on reading and writing as mentioned in the teachers' book. However, it doesn't provide enough information about selection and presentation of vocabulary, instead of that spine 5 writers say:

(P .ii) Although the words may seem difficult and the pupils will have to work very hard to learn them, they will then be able to understand and talk about topics which are very important in today's world and related to Sudanese society.

SPINE 5 has been chosen for this study because students are looking towards Sudanese certificate where knowledge of vocabulary is a major prerequisite. On the other hand English language teachers regard Spine 5 as the richest one in vocabulary. So English language teacher need to know exactly what kind of vocabulary is provided? How many words are introduced? And how new words are presented? Precise information about vocabulary load can be used in selecting and exploiting vocabulary effectively. Vocabulary is central to language Nevertheless, the teaching and learning of vocabulary has been neglected in the field of second language acquisition according to Meara (1980:221) quoted in Hedge (2000:110)" vocabulary acquisition had received short shrift from applied linguistics" Recently, vocabulary have been considered one of the most important aspects of second language learning. famous researchers like Michel West and Nation built a scientific basis for selecting the vocabulary content of a language course, they create a list according to word usefulness and frequency this study investigates the selection of vocabulary used in Spine5 to see if careful selection has been made for vocabulary and

the vocabulary are in line with latest studies. The study compares the kind of vocabulary with the first three 1000 high frequency word lists which are made from British National Corpus.

1.1 Statement of the Problem

1. What are the characteristics of the vocabulary of Spine 5?
2. What is the limitation of the vocabulary of Spine 5?

1.2 Objectives

1. to list and count the vocabulary of Spine 5.
2. To compare the list with first three 1000 high frequency word lists of BNC.
3. To what extent was new vocabulary given enough recycling?
4. To what extent was new vocabulary presented in spaced recycling?

1.3 Questions of the Study

1. How many new words are there in Spine 5?
2. How are the BNC first three lists related to spine 5 word list?
3. How many times each word is repeated?
4. How is vocabulary recycled in Spine 5?

1.4 Hypotheses

1. Reasonable number of words were introduced in spine 5.
2. All words in Spine 5 vocabulary list are related to the BNC first three lists.
3. Not all words are given enough recycling.
4. Spine 5 is not based on the principles of the strict control of spaced recycling presentation.

1.5 Significance of the study

This study is significant because it highlights the value of vocabulary of Spine 5 textbook using the latest findings in the field of vocabulary acquisition. The study is hoped to contribute in the following areas:

1. Help English language teachers to make the best decisions regarding vocabulary teaching and learning.
2. Encourage researchers in the field of teaching English language to examine and make comparison between textbooks.
3. Help syllabus designers.

1.6 The limitation of the study

This study is limited to the vocabulary of Spine 5 which should be taught as new words. It will be conducted in the school year 2013 -2014

1.7 Methodology of the study

In this study the researcher will use a vocabulary list from Spine 5 teacher's book, the first three 1000 high frequency word lists from British National Corpus and Spine 5 pupil's book as tools of collecting data about the vocabulary load of Spine 5pupil's book. Ten words from the most recycled words will be selected in order to test spaced recycling of vocabulary Then data which are collected will be classified ,organized, analyzed, discussed and interpreted.

Chapter Two

Literature Review

2.0 Introduction

This chapter provides a review of those topics which are considered to be most relevant to the research problem. It begins with a discussion of the significance of vocabulary in the field of teaching and learning English as foreign language. Then it focuses on the relation between vocabulary knowledge and reading, the size of vocabulary required to read, threshold level, type of words, and word lists. Finally the review highlights presentation of vocabulary in textbook regarding recycling of new vocabulary. At the end of the review some previous study are described.

2.1 The importance of vocabulary in learning English language

For many years vocabulary has been undervalued in the field of second language teaching and learning, but last decades have seen change of attitude towards vocabulary.

According to Laufer (1997:147) vocabulary is no longer a victim of discrimination in second language learning research, or in language teaching. After decades of neglect lexis is now recognized as central to any language acquisition process, native or non native. what many language teachers might have intuitively known for a long time, that a solid vocabulary is necessary in every stage of language learning, is now being openly stated by some language researchers.

Change of attitude towards vocabulary is due to the spread of the audio lingual method followed by the communicative approach, since then the findings of applied linguistics slim down the syntax and give more importance to the lexicon. this revolution of vocabulary has created

explosion of publications on vocabulary aimed at second language teachers and course designers.

Carter, R. (1998:184) thinks that vocabulary was neglected in second language researches, as a result of syntax and phonology domination in this field. Moreover, vocabulary presentation seems to be a difficult task for syllabus designers because of its infinite nature. But now vocabulary is in the top of researchers' consideration.

Jordens et al (1996:359) believes that vocabulary is more important than grammar because people generally use vocabulary and reduces grammar particularly when getting a message across quickly and precisely is of the utmost importance; like telegrams, panic situations or times when emotions are very high. Moreover, the number of ungrammatical sentences people speak and write is enormous, unless they need to convey complex messages precisely. It is clear that vocabulary has been recognized as a key area of language knowledge.

Hatch 1978 cited in Jordens et al (1996 :358) believes the foreign language learner needs few lexical elements in early stage as well as in later stage of the learning process ,is often far greater than the need for grammatical rules this why travelers take dictionaries not grammar books when going abroad . Vocabulary is central to English language teaching because without sufficient vocabulary students cannot understand or express their own ideas Willkins (1972:111) quoted in Milton (2009:83) " While without grammar very little can be conveyed without vocabulary nothing can be conveyed".

Call 1987 cited in Jorden (1996 :258) pointed out that we can give clear image without using certain grammatical categories for example: storm fall tree dead, this explain why text comprehension is determined to a large extent by vocabulary acquisition, This considerable amount of

research has been devoted to second language classrooms in order to ascertain where the type of instruction has an effect on second language development and achievement. As Ellis (1995 :17) quoted in deZarobe and Catalan (2009: 81) points out this kind of research aims at the clarification of theoretical issues but above all aims at the improvement of language teaching by means of developing teachers awareness of the nature of the input that learners are exposed to.

In order to become proficient in a foreign language therefore, a learner has to learn thousands of words before taking care of grammar, and language teachers should spend considerable time on teaching vocabulary in their classroom and examining the vocabulary loads of their textbook.

2.2 Vocabulary knowledge

Foreign language teachers and learners generally measure vocabulary knowledge by the number of words that a learner knows. They believe that knowing a word means being able to know its meaning and being able to use it correctly. They know that it is much easier for the learner to recognize a word than produce. There is clear evidence between recognition of a word and ability to use it, many criteria are used to define word knowledge for example, Milton (2009:13) states two types of knowledge involved in being able to use a word properly and effectively in a foreign language. Receptive knowledge represents the words that are recognized when heard or read. Productive knowledge refers to the word that can be called to the mind and use in speech or writing. Milton believes that it is useful in teaching and learning English as second language to specify receptive vocabulary and productive one. He added, some syllabus designers divide their word list into words the learner expect to know passively and those they expect learners to know actively.

As well as the receptive and productive distinction there are other criteria related to depth of knowledge for example, Richard 1976 cited in Meara (2009 :73) identifies different aspects of word knowledge as knowing it is syntactic behavior, and semantic value, besides knowing the different meanings associated with the word. It is clear that the difficulty which faces foreign learners in producing a word due to complicity in word meaning.

For Nagy and Scott, 2000 as cited in Yudin, et, al (2010:31) word knowledge develops along a continuum with different degrees of familiarity they identify several aspect of word knowledge

1-from never hearing before to being able to use the word in a sentence,

2-word knowledge consists of multiple dimensions, some time learner may know the definition of word, but may be unable to use it in sentence

3- Words often have multiple meanings, but depend on the context so that meaning may change,

4-words are interrelated, means that learners' knowledge of one word is not isolated from other words.

5- word knowledge is heterogeneous in other words to know a word depends on the type of word for example knowing a function word is different from knowing a verb or a noun.

In their analysis Mckeown and Kucan (2002:10) cited in McGill, et, al (2010:316) have listed 5 levels,

1- no knowledge ,

2- general sense like knowing it is negative connotation

3- narrow context bound knowledge ,

4- Having basic knowledge of word and being able to use it in a variety of situation.

5- *Rich knowledge of word meaning, its relations to other words and its extension to metaphorical uses.*

Another different lexical criteria is used by Nation 1990 cited in Macaro (2003:68) to know a word, learner knows

- 1-*spoken form of a word.*
- 2- *Written form of a word.*
- 3-*grammatical behavior of a word.*
- 4-*collocation behavior of a word*
- 5-*frequency of a word*
- 6-*stylistic appropriateness of a word*
- 7-*concept meaning of a word*
- 8- *Associations word has with other word.*

According to Paribakht and Wesche 1993 cited in Macaro (2003:68) knowing a word in a second or foreign language comes through many stages:

1. *The word is not familiar at all.*
2. *The word is familiar but meaning is not known*
3. *Learner gives correct synonym or translation for the word.*
4. *Learner uses word with semantic appropriateness and grammatical accuracy in a sentence.*

Schmitt 1998 cited in Macaro (2003:69) argue that *No one really knows what the acquisition stages are that a word might move through, he comes to conclusion that there is intuitive hierarchy in depth of word knowledge but we do not know what it is. However, the word can be used in arrange of different context, appropriately, confidently and idiomatically. For this to happen a wider specification of knowledge is necessary.*

Learner knowledge about a particular word may not be all or none. Acquisition of a word does not appear to be a simple shift from not knowing to knowing. Or from receptive to productive; rather there is a continuum of knowledge about any word and a learner can be anywhere along the continuum of knowledge about any word. Liach (2011:38) says measuring vocabulary size in second language teaching and learning has important role. There are two aspects regarding the quality and quantity of vocabulary knowledge. Depth, which aims to answer questions such as what is involved in knowing a word? How will learners know the words they know? Breadth which refers to the number of words (the size of vocabulary) that learner knows.

Laufer (1998:257) cited in Horvath and Nikolov (2007:293) come to the conclusion that the depth of word knowledge develops over time it usually progresses from receptive to productive knowledge. Laufer investigates three components of word knowledge the first is basic receptive knowledge which means understanding frequent and core meaning of word, the second is control productive knowledge which means entails producing words prompted by a task such as filling in sentence with a word the first few letter are given, the third is, use of words as one's own will or choice as in the case of a writing task.

It is clear that scholars are agree in one matter word can be known at various levels and full mastery of a word requires much more than just knowledge of it is meaning. Huckins and Bloch (1993 .154) point out that second language readers rely heavily on vocabulary knowledge and that the lack of vocabulary knowledge is the largest obstacle for the second language reader to overcome therefore, vocabulary has been considered to be a crucial component of language development and effective reading. It

is important for English language teachers to be aware of the vocabulary that learners are exposed to.

2.3 Relation between vocabulary and reading

Textbooks which are designed for foreign English language learners generally concentrate on reading skill. Its content seems to be a series of texts followed by writing or grammatical practices. These comprehension texts are expected to develop learning English language and vocabulary acquisition, but what is the relationship between reading and vocabulary knowledge? Role of vocabulary knowledge in reading comprehension has been well recognized in the field of second language teaching and learning. Davis 1944 as cited in Gue (2008: 3) believes that words knowledge made unique contribution to reading comprehension for first language learner. Davis has analyzed tests of nine skills underlying reading comprehension such as, word knowledge, ability to identify writers' purpose, grasping the detailed statement, he found word knowledge had a factor loading of 80%. The presence of relationship between vocabulary and reading comprehension has been also supported by Markers et al 1974 cited in Ridder (2003 :10) say; altering the difficulty of the words in a text make the text easier or harder to comprehend. They found that when 15% of the words in several elementary school texts were replaced with either high frequency words (easy) or low frequency words (hard) synonyms, reading comprehension was significantly increased with the high frequency group and reduced in the low frequency group.

Anderson and Freebody 1981, cited in Stahl (2006:219) have offered three hypotheses to describe the relationship between vocabulary knowledge and reading. They labeled, instrumentalist, aptitude, and knowledge, the instrumentalist view sees vocabulary knowledge a major prerequisite and causative factor in comprehension, because good

vocabulary knowledge enable good comprehension .Aptitude view sees vocabulary knowledge as one of many outcomes of having a good brain. The knowledge view sees vocabulary as indicator of good world knowledge because the reader must bring as much information to the text as the reader expects to get from.

For Laufer and Sim 1985 as cited in Ridder (2003:8) vocabulary knowledge is the most important factor involved in reading complicity and comprehension process. They posit several factors in order of decreasing importance: knowledge of vocabulary, subject matter, discourse markers, syntactic structure .In essence they find that vocabulary is the most important factor, syntactic structure is the least important factors.

Regarding receptive vocabulary knowledge (Cody et al, 1993; Laufer 1992; Horst et al: 1998) cited in de Zarobe and Catalan (2009:84) affirmed that there is evidence of positive relation between vocabulary knowledge and text comprehension. Learners with high vocabulary knowledge have fewer difficulties in understanding academic texts in the target language than learner with low vocabularies. Moreover, receptive vocabulary knowledge has proven to be positively related to incidental word learning; because those learners who hold higher receptive vocabulary knowledge seem to be more capable of acquiring more words by incidental exposure than learners with low vocabulary.

Reading not only enforce vocabulary learning but also seem to be highly dependent on the knowledge of words one knows in a text, the better one should comprehend the message of text.

Vocabulary regarded as a main factor in reading comprehension researcher as Laufer 1991 cited in Laufer (1997 :20) has affirmed through experimental study good and significant correlation between two different vocabulary tests and reading scores of second language learners.

Vocabulary is an essential component of reading comprehension. Florese (2004: 110) quoted in Hedge and Ferris (2009: 296) observed that second language learners quickly discover that their lack of vocabulary knowledge results in serious comprehension problems. Therefore, it should come as no surprise that most second language learners identify vocabulary deficiencies as their biggest problem in mastering second language.

2.4 Measuring Second Language Vocabulary

Vocabulary Size

It seems necessary to specify what and how much vocabulary a language learner needs. Gound, Nation, Read 1990 cited in Horvath and Nikolov (2007: 294) think that to investigate progress in vocabulary knowledge it is necessary to describe vocabulary in quantitative and qualitative measures. They assert that the most striking difference between native speaker and second or foreign language learner seem to be in number of words they know. To measure receptive vocabulary they describe the method of dictionary sampling as a reliable way of determining the size of first language vocabulary they estimated that adult educated native speaker s of English have a receptive vocabulary of around 17,000 base word.

According to (Nation 2001:9) syllabus designers need to know the vocabulary size of native's speaker and the number of words need to use the language. English language constituted by 54.000 word family. The amount of word family known by an educated native speakers 20.000 word family.

Nation and Waring (1997 :8)assert that learners can communicate efficiently in English with much smaller vocabulary size than native speaker who have an adequate vocabulary size to use a language because these number of words in English language occur very frequently and if

a learner knows these words , that learner will know a very large proportion of the running words in a written or spoken text . Most of these words are content words and knowing enough of them allows a good degree of comprehension of a text.

Text coverage

An important issue in studies concerning the size of vocabulary is the amount of text coverage which required reading a text. Laufer (2010: 17) defines text coverage as the percentage of running words in the text known by readers'. So if they have reached 95% text coverage; this means that they understand 95%of the running, token word of the text. In this area there have been several studies which have attempted to determine the amount of coverage needed by language learners in order to be able to read with reasonable comprehension and without lack of vocabulary knowledge. Hirsh and Nation 1992 as cited in Nation and Waring (1997:10) examined the relationship between text coverage and reading comprehension for non-native speakers of English with novels written for teenage readers. Choose these novels because they thought might provide the most favorable conditions, like using simple vocabulary and opportunity for the repetition of vocabulary .Table 1 shows that under favorable conditions, a vocabulary size of 2000 to 3000 high frequency words provides a very good basis for language use.

Table (2.1) Vocabulary size and coverage in novels for teenagers

Vocabulary size	% coverage	Density of unknown words
2000 words	90 %	1 in every 10
2000 + proper nouns	93.7%	1 in every 16
2600 words	96%	1 in every 25
5000 words	98% words	1 in every 67

Milton (2009:47) believes that there is a strong relationship between text coverage and comprehension; if learner knows more words, the learner will be able to understand reading and listening in the foreign language. Also Milton pointed out that the most frequent words are usually structure and function words , the word which are needed to make language grammatical , but which may contribute very little to the substance of what is being spoken or written about , It is possible to be familiar with a large portion of text and still have no real understanding of content ,because much meaning of the text is carried by verbs and nouns.

Milton asserted that there is a strong relationship between text coverage and comprehension; the coverage is important to comprehension and that the knowledge of the most frequent words which contribute so much to coverage is also important. This is best appreciated with a series of examples that puts the reader in the position of a learner with a varying amount of vocabulary knowledge. Milton has measured text coverage to find out how many words are required to acquire full understanding of text, he found that adequate comprehension of well known speech requires knowing 90% - 95% of the words in that well known speech. Where 80% of the running words in that speech were familiar to the readers , none adequate comprehension .From this information Milton suggested "*for full understanding of a text , almost all the words probably 95% or more , will that need to be known "* large amounts of vocabulary and very nearly complete coverage are needed for approaching normal comprehension and language use . He suggests that vocabulary tests that concentrate on the most frequent words of English provide useful information how a learner can function in a foreign language.

Concerning the size of vocabulary required to read a text Hu and Nation 2000 cited in Hedge and Ferris (2009: 97) attempt the amount of

vocabulary needed by language learners in order to be able to read with reasonable comprehension. They examined the relationship between text coverage and reading comprehension for non native speakers of English with a fiction text. The results showed that with text coverage of 80% (that is, 20 unknown, words out of every 100% words (1 in 5), no one gained adequate comprehension. With text coverage of 90% a small minority gained adequate comprehension. With a text coverage of 95% (one unknown in 20word) , a few more gained adequate comprehension ,at 100% coverage , most gained adequate comprehension. When a regression model was applied to the data, a reasonable fit was found .It was calculated that 98%text coverage 1 unknown word in50 word be needed foremost learners to gain adequate comprehension.

These research findings gave estimate text coverage needed before understanding the complete, also they show a very strong relationship between English foreign language and student vocabulary size and reading comprehension .The impact of vocabulary is so profound that researchers have been able to provide estimate of the size of vocabulary needed for successful comprehension.

Threshold

The features discussed about coverage have led several researchers to consider that there may be a threshold where vocabulary knowledge becomes sufficient for adequate comprehension. Laufer (2010: 16) defines vocabulary threshold as the minimal vocabulary that is necessary for adequate reading comprehension, boundary between having and not having knowledge. But what vocabulary size (number of word types, or families) will provide 95% coverage of academic text. Laufer 1989 as cited in Hedge and Ferris (2009: 297) postulated that in order to read and successfully comprehend a text a reader must know 95% of its words.

English language, she estimated that readers would require a vocabulary of about 5000 of the most frequent words to comprehend and interpret a majority of the material in a given text sample. Laufer (1997 : 23) looked at the relationship between reading comprehension score and vocabulary size , that minimal vocabulary level of 3000 words families (around 5000 lexical items) is needed to have proper understanding of a text. Laufer (1997:31) presented results from her previous studies proposing vocabulary threshold of 3000 words families for effective reading and incidental vocabulary learning from context

By far the greatest lexical obstacle to good reading is insufficient number of words in learners' lexicon .lexis was found to be the best predictor of success in reading, better than syntax or general reading ability . Whatever the effect of reading strategies is, it is short-circuited vocabulary is below (minimum of 3000 words family or 5000 lexical items.

Nation 2001 believes that language learners need a minimum vocabulary size of 2000 word families and good knowledge of academic vocabulary to cover about 90% unsimplified English texts .Even with vocabulary size, the learner may need to deal with a number of unfamiliar words. In 2003 Adolphs and Schmitt cited in chacon ,et al (2010:29) founded that 3000 word families might be a better target ,as this figure covered nearly 96% of the Cambridge and Nottingham corpus of discourse English .Nation and Hirsh (1992:695) think a vocabulary size of around 5000 words family is a threshold for pleasurable reading .

Schmitt and Jiang,(2011 :27) maintain that greater vocabulary coverage lead to better comprehension ,but there is no indication of vocabulary threshold where comprehension increases dramatically at particular percentage of vocabulary knowledge .Because vocabulary is not only factor affecting comprehension. Horst ,et ,al 1998 cited in Murphy

(2008 :42) support a need for second language threshold vocabulary in the range of 3000 ,words families to help facilitate incidental vocabulary acquisition .Vocabulary threshold help English language teachers to setting vocabulary goals specially who have textbooks and depend on reading as a main activity.

2.5 High frequency words

Researchers try to simplify English language for second language learners through controlling the type of vocabulary that learner is needed to expose to .Michel west 1953 called for systematic selection of vocabulary because he found that random selection is wasteful approach. West (1930:514) quoted in Zimmerman (1997:9).

The primary thing in learning a language is the acquisition of vocabulary, and practice in using it. The problem is what; vocabulary; and none of these modern textbooks in common use in English schools' have attempted to solve the problem.

West stated that foreign language learners did not have even basic thousand vocabulary after three years of study , for three reasons first their time was spent on activities that were not helping them speak language ,second , they were learning words that are not useful to them ,third they were not "fully mastering " the words they were learned . According Zimmerman (1997 : 10) combined research of Palmar and Michal West attempt to introduce a scientific basis for vocabulary selection and principles of syllabus design .West findings were supported by Sinclair and Renouf ,1988 cited in Carter and MacCarthy (1988:159) suggest frequency as the best measure of usefulness of the words .high frequency words are words that often occur in normal use of language. West 1953 counted 2000 words as the most frequent words in English language .this estimate of the most high frequency words is supported later by many

studies. Laufer1992 considered the 3000 most frequent word lead to 95% understanding of general text.

Schmitt and waring (1997: 9) small number of the words of English language occur very frequently and if the learner knows these words, that learner will know a very large proportion of the running word in a written text. Language learner need between 3000, 5000 words family to comprehend a general text. According Nation (2001: 33) high frequency words are important because they encounter learners in a wide range of vocabulary uses , further more high frequency words are necessary for understanding the meaning of a particular text .Thus , vocabulary learning should focus on high frequency words which provide learner with the greatest benefit. There is plenty of evidence that vocabulary learning is strongly affected by word frequency. Read 1988 cited in Nation (2001: 34) found that low frequent words cause difficulty for second language learners Lafuer(1997 :150) asserts that since the learner is subjected to more exposures ,vocabulary access is positively influenced by high word frequency. Words that are frequent in language learn first because they encounter more often in language uses.

Vocabulary researches propose frequency as the main or one of main criteria regarding vocabulary selection course books. Thus, Nation (2001:12) state that primary attention should be paid to most frequent words in general English .Low frequency words would not deserve classroom time .

Nation argues that after these high frequency words are learned, the next focus for the teacher is on helping the learners develop strategies to comprehend and learn the low frequency words of language. Because of the very poor coverage that low frequency words give to text. Researchers are agreeing about learning high frequency words at the first stage of

learning foreign language; they suggest direct and indirect teaching for high frequency words. Nation believes that direct teaching (teacher explanation ,peer teaching), direct learning from (cards and dictionary) and, planned encounters (using graded reading exams) are ideal methods for learning high frequency word in English language. Sternberg ,1987 cited in Nation and Waring (1997 :11) thinks indirect learning through extensive reading is the best way to learn new vocabulary .Extensive enhance word knowledge and the learner get a lot of exposure to the most frequent and useful words . On the other hand Nation and Waring 1997 believe indirect learning is not enough to learn high frequency words because learner cannot learn from context unless they master these high frequency words

Schmitt (2000 : 118) thinks that explicit teaching is probably essential for most frequent words of any second language because they are prerequisites for language use .the learning of these basic words cannot be left to chance , but should be taught as quickly as possible , because they open the door to further vocabulary acquisition . Thus, teachers of foreign language and syllabus designer should be aware of vocabulary which is essential for classes.

2.6 Word lists

High frequency word lists have been created for the purpose of designing syllabuses on scientific basis .A word list provides a rational basis for making sure that learners get the best returns for their vocabulary learning efforts Nation and Waring (1997: 17). Word lists are group of high frequency words .This group of words is chosen from a given corpus (group of written or spoken texts), according to the number of occurrence. Nation 1997 noted the great help which provided by computing capabilities, making corpus analysis much easier than manual counted .

Nation (2001:7) defines several criteria use for counting word in corpora. Token or (running word) is to count every form in spoken or written text, and even the same word form occur more than once. Types are the different word forms that are the source of token so one type can have many tokens. Lemmas are consisting of a head word and it's inflected like (plural, possessive comparative, superlative), all the items under lemmas are the same part of speech.

In word lists, words are summed up under the word family for statistical purpose .Nation (1992:692) defined word family as the base form of a word plus its inflected forms and derived forms made from affixes. The idea behind using word family as the unit of counting words in a word list ,is that the knowledge of at least one of the family members and knowledge of the most common regular inflected and affixes make other family members understandable when are met in context.

Range of occurrence is another criterion has been established beside word frequency, which means, word should occur frequently across wide range o f texts in different forms in order to be included in a word list Nation and Waring (1997:18).

Some useful word lists have been created to develop syllabus designing and setting learning goals. The general service list by Michael West 1953 is well known in the field of second language teaching and learning. As cited in Nation and Hirsh (1992:691) the general serves list GSL is asset of 2000 words selected to be of the greatest general service to learner of English language. Frequency and factors as, easiness of words and useful words in the classroom were taken into the count in making the selection. Each of 2000 words is a head words representing a word family . Frequency numbers are given derived from Thorndike and Lorge 1944.

This list has a wide influence for many years. Serving as the basis for graded readers as well as other materials.

Another list of high frequency words specialized for general academic purposes called the academic word list (AWL) has been compiled by Cox head 1998) cited in Nation (2001:12). Academic word list contain 570 word families appearing frequently in academic texts over a wide range of disciplines.

According to Nation (2004:4) British National Corpus word lists (BNC) are derived from a collection of a variety of texts, consists 100,000,000 words of English. 10 % are spoken texts and 90% are written texts. Each of the word lists consist of 1000 words family they were ordered according to the frequency and range of words. The first three 3000 words family lists contain much the same vocabulary of general service list. The academic word list divided between the first three lists of BNC .Nation states that the GSL has been replaced by three word lists because of its age .GSL contains some old word like gallon, shilling, and aunt. BNC word like television and chat, executive. Nation (2006: 80) developed fourteen frequency lists on the basis of the British National Corpus the fourteen 1000 words family lists were made from first 1000 words to fourteenth 1000 words. The BNC first three lists consist of 3000 words family. They cover a very large amount of formal vocabulary which is used by adult British. Thus, they give more detailed estimates of the vocabulary load of texts .The BNC word lists are regarded as the most modern word lists. They are used in soft ware program called (Range). The program is available for language teachers to compare their textbooks with BNC.

2.7 Recycling

Memory review and repetition take a crucial role in the complex process of learning a vocabulary item therefore; vocabulary recycling

becomes a determinant in the process of learning. According to Nation (2001: 77) the repetition brings quantitative and qualitative benefits to vocabulary learning:

repetition is essential for vocabulary learning because there is so much to know about word each word that that one meeting with it is not sufficient to gain this information , and because vocabulary items must not only be known ,they must be known well so that they can be fluently accessed

Repeated encounters make word appear in different contexts. Each encounter provides new information about the word meaning and facilitates acquisition. Ellis (1995:42) distinguished between comprehension and acquisition of vocabulary, Ellis asserts that the acquisition increases with the rise of the number of context in which the word appears. Learner need enormous encounters with word not only to consolidate a word accrued knowledge but also master the various type of word knowledge, Schmitt (2010:36).

The issue of how many encounters are needed to learn a word has been dressed by different scholars, although so far there is no agreement in this respect. Brown 1993 cited in Ellis (1999 :47) thinks that there is no correlation between the number of occurrences and word learning and that is the type of text where the word is encountered may a greater influence than the number of exposures, however in both first language and second language vocabulary researchers have asserted the importance of encounters for word learning although they have disagreed on the exact number. As first language is concerned Nagy and Herman 1987 cited in Ellis (1999: 47) believes that one encounter may be enough in order to learn unfamiliar word. The same disparity of criteria is found concerning second vocabulary. As cited in Ellis (1999: 46) researchers advocate different numbers of encounters to learn unfamiliar word. Beck and Oman

son 1987 cited in James (2012:142) suggest four encounters for native speaker. Kachru 1962 cited in Milton (2009:209) thinks seven encounters are useful for foreign language learner. Although there is no total agreements on the numbers of occurrences needed to learn a word it seems as the greater number, the high possibilities of learning the word. Paribakht and Wesche 1997 cited in L'opez (2010: 161) point out that the probability of learning new word after only one encounter is between 5% and 10% .Research by Webb (2007 :63) concerning the effects of repetition on vocabulary knowledge shows that greater gains in knowledge were found for at least one aspect of knowledge each time repetitions increased. If learner encounters unfamiliar words ten times in context, sizable gain may occur, however, to develop knowledge of word more than ten repetitions may be needed.

There is also evidence of effect of word repetition and difficulty in text comprehension. In this respect Bunker 1988 cited in Liqin and Xinlu (2014: 23) found strong correlation between the percentage of word repeated and reading difficulty in second language showing that those texts that repeated 33 percent of their words more than five were easier than those that repeat 20 ,19 or 14 percent of their words at least five times in a text increased the difficulty of learning word decreased . Recycling is necessary for mastering vocabulary, initial word knowledge seems to be fragile, and that one counter through textbook does not fulfill learning goals.

Research show that in order to have realistic chance for learning vocabulary a number of recycling is necessary.

2.8 Spaced Recycling

One of the robust findings in the area of vocabulary learning is the effectiveness of spaced repetition on learning and long term word retention.

The number of repetitions is determined by many factors .Nation (2001: 76) says it is not just how many times a word is encountered, but at what intervals a word is encountered. Spaced repetition has a major impact on learning and retention vocabulary .Nation differentiates between spaced repetition and massed repetition. Spaced repetition involves spreading out review sessions over an extended period of time with increasingly lengthy intervals between each review session .Massed repetition means ,spending on an uninterrupted period of time rehearsing of studying material that one wishes to learn and remember .Finding about spaced repetition are build on memory researches and how the mind forgets information .Pimsleur 1967 cited in Schmitt(2010 : 34) believe most forgetting occurs early , and thus the need for review session is greatest over the first few days , however , with each review the learning and memory of the word get stronger and therefore the interval between review sessions can get progressively longer . Research by Parreren 1991 cited in Schmitt(2010: 35) says that one of the problems face learning new vocabulary is spending much time on learning easy words , although there are difficult words are under learned .A practice schedule based on the expanding spaced recycling may help to avoid this problem .

Schmitt (2010: 36) argues that spaced recycling is useful for consolidating previously encountered vocabulary thus, establishing spaced repetition as a principle for designing text book will be beneficial decision. If the new gained vocabulary is not strengthening with spaced repetition after initial encounter it will be forgotten.

2.9 Previous related studies

In this section the researchers is going to revise some researches that deal with the same field of the study. The researcher has revised many papers and researches that trying to put in light the difficulties face vocabulary learning.

First Study is carried out by Abeer Abdallah Zeen Supervisor: Montasir Hassan Mobark 2010. Title: Overcoming Secondary school student's difficulties of vocabulary through an effective teaching. Presented to: Sudan University of Sciences and Technology, Faculty of Education. The study aimed to identify the main problems that face secondary school students in Sudan in learning vocabulary, to identify some factors that cause these problems and to find out whether SPINE provides.learners with the suitable methods of learning vocabularies. A descriptive and analytical method was used and a teacher's questionnaire. In her finding Abeer mentioned that Teachers do not use Arabic translation while they teach vocabulary. Students do not understand the meaning of new words. The number of vocabulary taught to the students is not sufficient.

Second study is carried out by Abu-Algasim Alneel Aldaw 2010 supervised by Dia Aldeen Mohammed Elhassan Mukhtaer .Title Difficulties Encountered by Sudanese Secondary School Students in Learning English Vocabulary .Presented to Sudan University of Science and Technology

He tried to find out the difficulties encountered by Sudanese Secondary school Students while learning vocabulary, and analyzing it and trying to find solutions for it. The main question is that, why secondary school students find it difficult to learn Words' meanings and to recall them when needed. To collect data for the study the researcher followed the descriptive method through which he designed a questionnaire for (40) English

language teachers. In addition to that the researcher tested (56) Secondary school students. In his findings he noticed that. - Secondary school students face difficulties while learning vocabulary especially when they are alone. - Secondary school students have no strategies to help them to learn vocabulary. - Using visual aids and games help students to - Improve their vocabulary. Based on finding of the study he recommended , English language teachers must be aware that vocabulary learning is difficult for the students. Students must be taught basic strategies for learning words. Visual aids and games must be used during teaching process. Literature is one of the great means that help students to develop their vocabulary knowledge.

Third study is carried out by carried by Mutaz Eldaw Jahelnabi Mohammed

Supervised by: Dr. Muntasir Hassan Mubark .2012, title: The importance of using Realia in Teaching English Language Vocabulary .Presented to Sudan University of science and Technology College of Graduate Study. The study aimed to investigate and explore the importance of using realia in teaching vocabulary, and to what extent they are used .The researcher used questionnaire as tool of collecting data. The sample of the study consisted of 46 English language teachers at basic school at Umbddah. The researcher raised following questions: To what extent using realia has positive effect on pupil's vocabulary achievement? Is the realia used all the time or encountered by difficulties? What are the teacher's opinions towards using realia in teaching?

Vocabulary? Is the course book provides intensive drill focusing on vocabulary? In his finding researcher mentioned: Using realia in teaching vocabulary has significant effect in pupils achievement. Realia are vital teaching aids in teaching structures ,meaning match as well as facilitate

memory and learning .referring to the study English language ,teachers have negative/positive opinions toward using realia. They considered realia extra work .and some of teachers said that when presenting realia the control of the class will be lost .many teachers use realia when the supervisor comes. The course book doesn't provide intensive drill focusing on vocabulary.

With regard to study there aren't available teaching aids in schools,

At the same time the majority of teachers have positive attitude toward using realia .The researcher recommended the following: basic school should be equipped all necessary tool and techniques for teaching vocabulary. Education administration should establish Continuous specialized training courses for teachers in using realia to improve the performance of pupils in English generally and particularly in vocabulary achievement so as to raise the teachers 'awareness about using realia. Teachers should provide with realia that easy to make and cheap enough .It can be from teachers' environment. Teachers should reconcile between presenting realia and controlling the class. Teachers should not consider using realia as extra work but are the essential part of their lesson and must allow some time for using them teacher shouldn't connect using realia with supervisor's attendance. Also Ministry of Education must care for providing all kinds of teaching visual aids and establishing auditory laboratory to improve correct English language pronunciation.

Fourth study is carried out by Elsiddig Babikir Mohamed supervised by Dr. Omer Elshikh Hugo 2012 .Title The Effectiveness of Using Realia in Teaching English Vocabulary . Presented to Sudan University of science and technology. The study attempted to shed light on the effectiveness of using realia in teaching English vocabulary for the secondary students. It tried to focus on suitable way of teaching vocabulary

by using realia. questionnaire was a tool that used for collecting data from the subjects who were thirty English Language teachers from Khartoum state . The important question of the study was: what are the difficulties which encountered students when using realia in teaching vocabulary.

According to his finding ,Secondary school students face difficulties in meaning of English vocabulary and in comprehension. Using realia beside the text book helps a lot in developing student's vocabulary. Applying the suitable strategies and techniques inside the classroom has a great role in developing student's vocabulary. Secondary school teachers have positive opinions and attitudes towards using realia in teaching English vocabulary. The difficulties were not big ones so they can be easily overcome. Therefore the conclusion is that realia has significant effect on improving student's vocabulary achievement.

The researchers recommended that: Teachers should use realia because it is one of the effective techniques in teaching English vocabulary. Teachers are advised to adopt realia techniques that suit their student's level. School libraries should be equipped with sources and objects that help the teachers to explain the meaning of new words. There should be additional training courses for teachers in teaching English language in general and in using realia in teaching vocabulary in particular.

Fifth study is carried out by Emtinan Abd Alazeez Albadawi supervised Dr. Abdul Mahmoud Idrees. Title: Difficulties encountered by Secondary School level teachers in presenting English Language Vocabulary. 2012 Sudan University OF Science and Technology, Faculty of Education.

The study aimed to shed light on the way of presenting vocabulary at secondary level in Omdurman locality, and to emphasize the importance of teacher training. The objectives of this study are as follows: the importance

of teachers training and its impact in presenting vocabulary. To shed light on the methods and techniques which are used by teachers to present vocabulary at secondary level? The researcher constructed a questionnaire to assess the aspects related to the problem under discussion. The study adopted the descriptive analytic method. The researcher designed questions concerning the side of importance of teacher training, others about techniques and methods of presenting vocabulary. The findings of the study reflect:

- Teachers tend to explain and give examples more than other techniques.
- Most teachers don't give the meaning and pronunciation before written form.
- The majority of teachers don't check students understanding of new vocabulary by asking them questions.
- Many teachers don't chorus the new vocabulary in short meaning full sentences.
- Teacher training is very important to present vocabulary skillfully.
- Training course provides teachers with new effective techniques and methods.
- Teacher training helps teachers to prepare well plan to present new vocabulary. In light of these results, the researcher recommends some solutions.
- Ministry of Education should send English language teachers at secondary level to training center such as SELTI to train them how to present vocabulary.
- Teachers must use variety of techniques and follow a methodic way, that to give the students the meaning and pronunciation before written form on the board.

- They should write the transcription of vocabulary in their lesson plans to pronounce it correctly.
- They should check students understanding by asking them questions.
- They should chorus the new vocabulary in short meaningful sentences instead of isolating and finally they should give them the written form and other forms.

To sum up it is found that all the previous mentioned studies were related to vocabulary teaching and learning, but what important is that, all the researchers did not write about the vocabulary that included in text books. However , some of them mentioned that students in secondary school level face difficulties in learning vocabulary for example (Abu Algasim) who noticed that secondary school students face difficulties while learning vocabulary and (Abeer) who mentioned that students in secondary level don't understand the meaning of the new words . (Elsidig) also noticed that secondary school students face difficulties in meaning of English vocabulary and in comprehension. But this study differs in terms of collecting data, it has been made on a quite objective ground .It used the first three BNC words frequency lists which are used as systematic criteria for selecting vocabulary for textbooks . What mostly distinguishes this study from the others is that this study examined vocabulary included in spine 5 and gives answer to why learning vocabulary is difficult for secondary school students. The study investigated the type of vocabulary and how was presented in the textbook.

Chapter three

Methodology

3.0 Introduction

This chapter begins with description of the material chosen for this analysis, description of data gathering tool, and the procedure of collecting data.

3.1 Materials

The data in this study is drawn from spine 5teachers book ,spine 5 student book and the British National Corpus first three base word lists generated by Pual Nation 2004 . The first three lists contain 3000 words family which is order in frequency groups of 1000 words families.

3.2 Instruments

The computational tool is used for ordering vocabulary items in alphabetical lists ,and comparing lists. Concerning validity and reliability of the tools this study used the word list generated from spine5teacher's book .The first 3000high frequency wordlists in Nation's 14BNC lists .The 14 wordlists are extracted from the BNC master lists lemmatized by Pual Nation and used by the BNC version of vocabulary profile to assess vocabulary load in textbooks .This criterion vocabulary list comes with dedicated software called vocabulary profiler ,currently available at <http://www.lex Tutor.ca/vp/bnc/>. Word family is used as unit for counting occurrence of vocabulary items in pupil's book.

3.3 Procedure

Vocabulary items which are introduced to be taught as new vocabulary were found in the teacher's book. Words were provided in line with pupil's

book chapter by chapter and section by section .there are 12th chapters each chapter consists five sections.

New vocabulary items in spine 5 teacher's book were typed and put in alphabetical list through Microsoft. Researcher exclude proper nouns and grammar words from the list .Then researcher compared spine 5 word lists against BNC 1000 words first list .the words which were found among the BNC first list were put in one list has been called list A (appendix 1). same process were done to design list B (appendix 2) from BNC 1000 words frequency second list and, list C (appendix 3)from the BNC 1000 words frequency third list .Finally words which were not found among the BNC first three word list were put in one list called list D (appendix 4).

To investigate recycling of new vocabulary items in spine 5 pupil's book researcher marked all the words which were introduced as new vocabulary with green color for its first appearance. For other appearances of the same words orange color is used .then number of occurrences is counted. Each word in spine5 word list followed by number of its occurrences (appendix 5).

Researcher chose ten words from the most recycled words as sample to identify the kind of recycling. Number of occurrences of ten words across the chapters of spine 5 is counted, in order to determine if each word is being suitably recycled.

Chapter Four

Data Analysis

4.0 Introduction

This chapter deals with the analysis, discussion and interpretation of the data. The study investigates the relation between Spine 5 word list and BNC first three 1000 high frequency word lists.

The study highlights the presentation of new vocabulary items in spine 5 pupil's book.

The tool which researcher used to collect data was the BNC first three 1000 high frequency word lists, spine 5 word list and spine 5 pupil's book. Then data which are drawn from these materials were analyzed.

4.1 Analysis of the Research Data

Starting with first research question how many new words are there in spine 5. The results of analysis indicate that spine 5 introduces 662 words as new vocabulary to be taught.

Concerning the second research question; that is weather the new vocabulary items used in spine 5 are in line with the first BNC word frequency lists. Research compare spine words list which contains 662 with first 1000 BNC words frequency list, then the second 1000 BNC words frequency list. Finally the third 1000 BNC words frequency list. The following results were found which are summarizing in table 1.

Table (4.1) shows how the first three BNC word frequency list related to spine 5 word list:

Word list	Number of words in Spine 5	Percentage in spine 5	Percentage in the first three BNC word list
List one	152	23.0%	15.2%
List two	148	22.3%	14.8%
List three	98	14.8%	9.8%
Total	398	60.1%	13.3% (from 3000)
Outside the 3lists	264	39.9%	—

As table shows, 152 vocabulary items in spine 5 word lists are found in the base list one and these 152 items make up 23% of total vocabulary items in spine 5 word list and 15.2% of the first 1000 BNC word frequency list. The second row reveal that 148 vocabulary items in spine 5 word list are found in the second 1000 BNC word frequency list, and these 148 vocabulary items make up 22.3% of the total words in spine 5 word list and 14.8% of the word in the second 1000 BNC word frequency list.

The third row reveal that 98 vocabulary items in spine 5 word list are found in the base list three, These 98 words make up 14.3% of total vocabulary items in spine 5 word list and 9.8% of third 1000 BNC word frequency list. The results show only 398 words from total of 662 are found in the first three BNC word frequency list. These 398 words make up 60.1% of the total words in spine 5 word lists and 13.3% of first three 3000 BNC words frequency lists. Last row shows that 264 vocabulary items which

make up 39.9% of the total of words in Spine 5 word list are outside the first three BNC words lists.

Concerning the third search question how many times each word is recycled. Researcher counted the occurrences of each word across pages of spine 5 pupil's book then put them in groups according the number of occurrences, e.g. 124 words repeated one time. The following results word found which are summarizing in table 2.

Table (4.2) shows how many times each group of words is recycled in Spine 5:

Number of occurrences	Number of words
1	124
2	91
3	61
4	18
5	16
More than 5	62
Total	372

The table indicates that 290 words are recycled from total of 662 which make 56.2% of total of spine 5 words. Results reveal that 124 words occur one time after their first appearance, and 91 words occur two times after their first appearance. The third row shows that only 61 words occur 3 times after their first appearance. Fourth row shows that 18 words occur for four times after their first appearance in the book. Fifth row shows 16 words occur fifth times after first appearance. Finally the sixth row shows 62 words occur more than five times after the first appearance. These results reveal that 372 words from total of words of spine 5 word lists have

never been recycled. The words that have quite good recycling, are the words that occur for fifth times (16 words) or more than fifth time (62 words) .It means that only 78 words from total of 662 which make up 11.8% have sufficient recycling.

Concerning the last research question how is vocabulary recycled in spine 5, researcher chose ten words from the most recycled words in order to see how they were distributed across spine 5 twelve chapters. The results are summarizing in table 3.

Table (4.3)

Occurrences of some recycled word across the 12th chapters

Chapter Words	1	2	3	4	5	6	7	8	9	10	11	12	Total
Community	12	2	4										18
Collective			10	3	7				2				22
Competition	2			2			3					6	13
Fermentation			8										8
Goal	1											25	26
Hospitality				11									11
Kick											1	12	13
Species								11					11
Survey			11										11
Wheel						1				18			19

Results reveal that most recycled words have massed recycling. Although eight words (community, collective goal, kick, survey, species, competition wheel) are found in the first three BNC words frequency lists. They have not given spaced recycling except "collective" which appeared cross 4 chapters and "competition" which appear across four chapters. The other two words "fermentation and hospitality" are low frequent words it is expected to have amassed recycling because they are related to certain topics.

4.2 Discussion

Concerning the findings obtained from the analysis of spine 5 word lists, learners in second class are exposed to 662 new words. This number of new vocabulary items is seemed reasonable to be learned during academic year. But what are the types of these words and how they are presented in textbook in order to help learning purpose of English as foreign language.

When spine 5 word lists compared against the first 1000 high frequency words list, the results indicate that only 152 vocabulary items from 662 in spine 5 word list are found among the first base word list. The results also reveal that 148 words in spine 5 word list are found in the second 1000 high frequency word lists, while 98 words are found in the third list. This means that only 60.1% are found in the first three BNC word frequency lists. This percentage of high frequency word in spine 5 word list may not be justifiable because learners of EFL in prior stage need to be exposed to high frequency words which are presented in first three BNC words frequency lists. On the other hand, the results obtained from the analysis reveal that 39.9% words in spine 5 word list are found outside of the first BNC word frequency. This percentage of low frequency words which are considered as difficult words and not necessary in context of dedicating time and efforts to master new vocabulary in EFL.

It is clear that spine 5 writers' have neglected frequency as important factor in selecting vocabulary. This neglect due to Spine 5 writers' respond to contribution of back ground knowledge to comprehension and student interest in selecting topics and vocabulary; they mentioned this fact frankly in the teacher's book(p. ii).

much of new vocabulary in topics such as income generator , health awareness etc. include English words which are quite commonly used-even the word "generator" is understood by most people in Sudan!

Also they added:

As with previous spine books, topics related to Sudanese society have been included. E.g. there is a passage about "Nafeer" and one about a mechanic living in Umbadda. Since the idea and situations are familiar to students, they will be able to use their background knowledge to help them work out the meaning of the text.

At the same time Laufer and Sim 1985 (who concentrate their research on learning vocabulary) as cited in Laufer (1997: 21) Found that in interpreting text students tend to regard words as the main land mark of meaning. Background knowledge is relied on to lesser extend. Therefore, learners rely on word meaning first than their knowledge of subject. Background knowledge facilitates reading comprehension but there are many effective factors help leaner to acquire vocabulary. Choosing background knowledge and topics which are related to local environment as criteria of selecting topics which consist of vocabulary lessen opportunities of supplying textbook with high frequency word. Although it is impossible to design a textbook only depends on high frequency words as main factor effects on learning adequate vocabulary, it is easy to take frequency of word in account when a textbook for ELF learner is designed.

Concerning the characteristic of 3000 frequent word in BNC spine 5 writers made random selection for new vocabulary. Because spine 5 is heavy loaded with uncommon words or low frequency words that are not occur frequently in normal use of language.

It seems necessary to expose learner with most frequent word first because if learner leave school without control of high frequency words then their major priority and learning will have been for little purpose. Since vocabulary is considered as the major priority and lack of adequate vocabulary knowledge results in difficulties in using language, syllabus designers and English language teachers should put vocabulary at the top of other components which are used to acquire language.

Concerning presentation of new words in spine 5 pupil's book, the finding obtained from the analysis shows learners in the second class at secondary school are exposed to reasonable number of new vocabulary to be learned during academic year. However (290) words which make up (43.8%) of these word have never been recycled at all, this means, these words will never encounter learner all academic year, therefore learner will not remember these words. On the other hand findings shows (124) words which make up (18.7%) of total of word in spine 5 word list occur one time after the first appearance this number of occurrences definitely will not contribute in developing learning vocabulary.

According to research words that occur less than five time have no chance to be mastered therefore, 294 words which make up (44.4%) of spine 5 new words have poor presentation in pupil's book and need more recycling as spine 5 writers explicitly ask teacher to recycle new words they say: (p .viii) *"Extra reading activities are invaluable as the pupils need maximum exposure to the written word in English in order to improve their reading ability"*.

Certainly syllabus designer can't support recycling of all words that introduced as new vocabulary to be learned by student because books have to serve number of different purpose. At the same time teachers generally

have a limited time they can't provide enough recycling of all new vocabulary items particularly when there are too many of words need recycling as word of spine 5 pupil's book.

Recycling of new words would be taken into consideration when textbook for foreign learners is designed. It is unjustifiable to let task of recycling for teachers' treatment only. Since empirical studies have emphasized the need to expose foreign language learner to several encounters with target items to enhance word learning, Syllabus designers and language teachers should be aware of the role of recycling new words.

In relation to recycling of new vocabulary in spine 5 pupil's book, the number of new vocabulary items which have been recycled is clearly inadequate because only (78) words which make up (11.8%) from total of (662) given sufficient recycling. This percentage will not help vocabulary learning because foreign language student, particularly in Sudan, contact with the target language often restricted to the classroom and hardly they have opportunities to expose to vocabulary outside the classroom.

Sheldon 1987 cited in Lopez (19:156) believes that some of the problem associated with textbooks found in their design, in other words: the presentation and recycling of new vocabulary together with selection and grading of text rarely appear in the second language course. Taking this point of view in the regard, analysis of data shows that spine 5 new vocabulary items were not presented in spaced recycling. The results reveal that the majority of the most recycled words have massed recycling. In fact most of recycled words even that occur once or twice have appeared in one text and rarely appear across other chapters of the book. It is clear that recycling of words in spine 5 pupil's book would not satisfy general conditions for spaced recycling.

Occurrence of the word in one text or in one chapter means that recycled word would have multiple repetitions in one class period. This due to type of new vocabulary items which are introduced in the text book. For example low frequency words like hospitality or fermentation normally will not recycled across chapters because they are found outside the 3000 most frequent words in BNC. Low frequency words like fermentation and hospitality have appeared in one chapter because they are related to certain topics .This is good evidence that textbook full of low frequent words can't provide spaced-recycling for new vocabulary items. On the other hand words related to first three BNC 3000 word frequency lists imply greater number of repetitions in textbook, however the words (species , survey , kick ,goal ,wheel) have not appeared in regular intervals . This is good evidence that spaced recycling was not taken into account Spine 5. Since data analysis reveals spine 5is loaded with low frequency words, and even the high frequency words have not presented in spaced recycling. A poor presentation throughout chapters was performed, so it can be said that spine 5 does not provide optimum vocabulary learning condition, therefore, there is a great doubt that with this number of recycling and the range of occurrences a cross chapters, these new words will be learned before the end of academic year.

Teachers need to reduce spine 5 limitations by becoming familiar with vocabulary contents. Teachers would specify words need to receive additional practice, beyond the textbook to meet vocabulary learning goals of the language.

4.3 Summary

Analysis of data shows spine5 introduces 662 words. 39.9% of these words are found outside the first three BNC frequency word list. The words are not appearing on these lists are considered to be difficult because of their low frequency. Research has specified the useful words which were drawn from the first three BNC high frequency word lists in three lists, appendix A represent the first 1000 high frequency words, appendix B the second 1000 list frequency words, appendix C the third 1000 high frequency words. Appendix D contained words are not related to high frequency word list. Research finds that teacher would be aware of the type of vocabulary introduced in their textbook. Research high lights the recycling of new vocabulary items in spine 5. It finds a lot of new vocabulary items have not given sufficient recycling. Results of research rivals massed recycling that occurs frequently in most recycled word, research highlights the relation between low frequently words and massed recycling. Recycled words in spine 5 are not appear in intervals although extensive memory research in foreign language learning, showing that spaced repetition of vocabulary results in better retention rates than amount repetition in a limited time. Research draws attention of teacher and syllabus designer to importance of recycling of new vocabulary.

4.4 Testing hypotheses

- 1- Reasonable number of new words were introduced in spine 5.
- 2- Spine 5 vocabulary list is related to the first three BNC word frequency lists.
- 3- Not all words are given enough recycling.
- 4- Spine 5 is not based on the principles of strict control of spaced recycling.

From the results, spine 5 introduced reasonable number of new words(662) However, many words in spine 5 word list are not in line with the first three BNC word frequency lists.

In the light of this analysis the researcher can say great majority of words are not given enough recycling and spine 5 is not based on the principles of strict control of spaced recycling.

Second hypothesis is not accepted but first and third hypothesis are accepted.

Chapter five

Conclusion

5.1 Conclusion

The results of this study have shed some light on the nature of new vocabulary of spine 5. Word frequency is an important dimension in ELF textbook but by no means the only one there are other aspects control vocabulary selection. The 3000 most frequent words level is essential goal for EFL learners. It was expected that spine 5 which emphasize on reading as main skill, would provide useful word for the learners. It seems necessary for teacher to find out what type of vocabulary is included in their textbook, in order to help learner to attain useful word by the end of the year.

Nation (1994: V) provides teacher with five components to check effectiveness of textbook.

- 1- Meeting vocabulary for the first time.
- 2- Establishing previously met vocabulary.
- 3- Enriching previously met vocabulary.
- 4- Developing vocabulary strategies.
- 5- Developing fluency with known vocabulary.

It is necessary for teacher to check recycling of new vocabulary items in their textbook because it has an effect on language learning. Sufficient recycling at regular intervals refresh student learning and give them needed practice of the words.

5.2 Finding

Findings of this study show that 60.1% of spine 5 new vocabulary items are found among the BNC first three 1000 high frequency word lists and 39.9% are outside these three lists. This indicates that spine 5 has an almost random vocabulary selection without much regard to frequency of words.

The analysis of new vocabulary items in spine 5 shows that this textbook reflects a level of difficulty because it contains a big number of low frequency words. The researcher further notes poor presentation of new vocabulary items. 43.8 % of vocabulary items have never been recycled and 44.4% words have insufficient recycling.

Researcher finds that recycled words; even those with enough recycling; were not systematically recycled. Massed recycling was performed except with very few words. The few words which have spaced recycling are high frequency words; massed recycling is found in all pages of spine 5 pupils' 5 book.

5.3 Recommendations

- 1- Teachers need to have reference lists to judge whether a particular word deserves attention or not.
- 2- Teachers should include useful words in supplemental materials in order to have a good chance of being learned during the course of the year.
- 3- Teachers should supply the texts with activities that will give learners exposure to target vocabulary that is not sufficiently presented in the textbook.
- 4- Syllabus designers should have lists to refer to when they consider the vocabulary.

5- Syllabus designers should consider vocabulary as the first component of language course and use systematic criteria in vocabulary selection.

6- Syllabus designers should follow new findings in the field of EFL.

7- Syllabus designer should increase number of high frequency word in textbook.

8- Syllabus designer should provide text book with systematic recycling for new vocabulary items by designing more encounters with words which are important for learner to acquire language.

5.4 Suggestions for Further Studies

From a researcher perspective I hope to have contribution to the field of English language learning and teaching by description of the type of new vocabulary contain in spine 5. The study has described of type and presentation of new vocabulary items.

However, more analysis for other spine sires is needed in order to assess vocabulary load of this series through update tools.

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Appendix (1)

Word list (A)

This word list contains words that found in the BNC first 1000 high frequency word list

account	cook	honest
achievement	couple	household
actor	creative	identity
affect	cup	imagine
afford	cycle	income
army	dealer	industrial
arrange	decade	information
artists	deeply	involve
available	depend	issue
basis	dropping	keep
bear	engine	lead
benefit	equal	light
blood	expense	limitation
blowing	experience	local
board	facing	majority
break	fair	marketing
card	falls	marriage
care	favour	meeting
charge	field	mind
check	fire	miss
clean	fitted	natural
collective	flats	normal
committee	forced	opportunity
community	formation	order
company	free	otherwise
compared	fund	pardon
computerised	gas	parental
concerns	hardship	party
conditioning	hell	percent
conference	highway	pleasant
conservation	hold	Point
consider	holiday	politician
control	homeless	possibilities

post
pound
power
Present
Print
Proceed
produce
productive
Project
proper
purpose
raise
real
Realize
recent
recommend
representative
research
Respect
Rollers
rules
safety
save
scheme
score
security
sense
Service
settle
size
snow
social
Society
standards
supply
support
system
tend
throughout
training

transport
twentieth
unbeatable
upside
valued
warmth
welcome
wheel
will
wonder
Wood
worth
youngster

Appendix (2)

Word list (B)

This word list contains words that found in the BNC second 1000 high frequency word list

accommodation	energy	naughty
according	engaged	nerve
accurate	entertain	obligation
adopt	eventually	obtain
advanced	exchange	occupy
annual	exhibition	opinion
article	extend	patient
attempt	facilities	pennies
attraction	features	permanent
average	fees	permission
battle	float	persuade
blindness	folk	pitch
block	constant	plastic
boredom	forgive	pleasure
brain	frame	plentiful
branch	gear	pool
broaden	generate	popular
capable	generation	practical
cells	goal	prize
century	goods	profit
circumstances	guards	promote
code	guides	pros
commercial	guilty	psychology
competition	holy	rare
consume	hook	relax
container	ignore	remarkable
contribute	impurities	request
convinced	indicate	resident
credit	institute	revolution
crime	intention	rooted
critic	internal	sacked
custom	international	samples
defend	invitation	scenery
delay	kick	screen
delegate	loan	select
demand	maintain	sight
disgust	manufacture	signal
dish	mass	skill
distribute	mental	solve
editor	mess	springs
efficient	minority	stamp
effort	models	stock
enable	motor	

strengthen
stress
struggle
sue
sufficient
survey
survive
swan
tap
technical
technique
technology
threaten
tidy
tourist
trip
van
victims
voluntary
witness

Appendix (3)

Word list (C)

This word list contains words that found in the BNC third 1000 high frequency word list

adaptation	guests	sympathy
affectionate	habits	tear
aggressive	handicapped	teasing
alcohol	helicopter	thriller
ambulance	host	tongue
arrest	infected	tragedies
arrows	Insist	trapped
astonish	inspire	twin
author	insult	unique
banned	interrupt	update
barrier	Jewel	urgent
brand	lamb	wheel chair
brass	leap	whistle
bushes	literature	wipe
circuit	mask	
column	mechanic	
comedies	mobility	
consequence	multiply	
courage	mystery	
cruelty	Pet	
cube	plot	
curious	plump	
cylinder	preceded	
deaf	pride	
deserve	puzzle	
digestion	questionnaire	
disturbed	refreshment	
dive	reward	
dominate	rhyme	
donate	rumour	
drain	satellite	
exhausted	seeds	
exit	shades	
flood	sheltering	
forecast	slave	
frequency	species	
fume	spill	
furs	spit	
generous	splash	
globe	stolen	
glue	stream	
grain	supervisor	

Appendix (4)

Word list (D)

This word list contains words that are not found in the BNC three 3000 high frequency word list

abbreviate	climate	drama
abundant	climatology	dribbled
administered	cling to	drought
age	co operative	dumb
agile	coach	duty
algebra	cocaine	dysentery
altitude	co-existence	eager
antelope	compose	earthquake
antenna	composure	ecology
anthem	condolence	endangered
anthropology	conduct	enforce
ass	cons	erode
athletics	cordially	evacuate
attribute	cowboy	excrete
axle	credible	expansion
barren	criminology	extinction
bat	crocodiles	fantastic
bees	crook	farewell
belong	crossword	fastened
beneath	cultivate	fatigue
biography	cunning	feces
biology	currency	federal
blacksmith	curriculum	fermentation
boasting	curved	fiancé
boycott	daffodils	firearms
Bray	dams	firewood
breeding	dedicate	fist
breeze	degree	flake
broth	department	flourish
buffalo	desertification	flush
bull	destination	flutter
bulldozer	destination	forestation
butterfly	determination	fossils
calf	diarrhea	foul
cannon	diesel	fulfill
cartoon	dinosaur	garment
cautiously	dispute	glitter
charcoal	distance	goose
cheetah	distinguish	gorilla
chlorine	divine	graduate
cholera	dizzy	grid
clamp	dove	habitat
		hare

hatched
herds
heroin
hoe
hopeful
horn
hospitality
hostel
hounds
humble
hyena
illiterate
incident
indigenous
inhabit
ironmongery
jealous
jug
kidney
kitten
lapped
latrines
launch
leisure
leopard
level
lizard
luggage
magnificent
masterpieces
means
medal
media
melody
menace
microscope
minerals
mooing
moonlight
nutrition
obey
Olympic
opponent
orbit
ornaments
orphan
overbooked
overlook
oversensitive
owl
panic
participation

passive
peanuts
penalty
perfume
phrase
physical
piaster
pick out
pincers
poacher
post
pounding
precious
preserve
president
probable
profess
propel
protein
province
provoke
puncture
puppy
purified
quadruples
recollect
record
refugees
reserve
rhinoceros
roar
rocking
rural
schizophrenic
screwdriver
seize
slaughter
snore
so-called
sociology
solar
spears
spy
stagger
stand by
stare
statistics
strike
sublime
submission
sulphur
surprise
surrounding

tanning
thirst
threshing
tiger
tobacco
tones
torn to
track
transplant
tribe
triplets
trumpet
trunk
truth
tug
turn up
tusks
typewriter
typhoid
Urban
vomit
wag
warp
wax
wealth
welfare
widow
wildlife
wipe
worn out
zoology

Appendix (5)

Spine 5 word list

This word list contains all the word that are introduced as new words in spine 5 except proper nouns. The numbers indicate occurrences of each word.

abbreviate 0	boasting 0	crocodiles 0
abundant 0	boycott 0	crossword 0
account 0	brand 0	cube 0
accurate 0	brass 0	curious 0
administered 0	braying 0	curved 0
adopt 0	breeze 0	cycle 0
affect 0	broaden 0	cylinder 0
affectionate 0	broth 0	daffodils 0
aggressive 0	buffalo 0	dam 0
agile 0	bulldozers 0	dealer 0
alcohol 0	butterfly 0	dedicate 0
algebra 0	calf 0	deeply 0
antelope 0	cannon 0	delegates 0
antennae 0	capable 0	diesel 0
anthem 0	cautiously 0	digestion 0
anthropology 0	cells 0	disgust 0
arrest 0	chlorine 0	dispose 0
arrows 0	clamp 0	dispute 0
artists 0	cocaine 0	distinguish 0
astonish 0	co-existence 0	divine 0
attempt 0	column 0	dizzy 0
attribute 0	composure 0	dominate 0
author 0	condolence 0	donate 0
banned 0	cons 0	dove 0
barrier 0	consciousness 0	drain 0
bat 0	conservation 0	dumb 0
battle 0	cordially 0	eager 0
bear 0	courage 0	earthquake 0
bees 0	cowboy 0	ecology 0
benefit 0	credible 0	editor 0
blacksmith 0	credit 0	

energy	0	heroin	0	microscope	0
enforce	0	hoe	0	minerals	0
engaged	0	homeless	0	mobility	0
erode	0	hook	0	mooring	0
evacuated	0	hostel	0	moonlight	0
excrete	0	hounds	0	motor	0
exist	0	humble	0	multiply	0
expansion	0	hyena	0	mystery	0
extend	0	identity	0	naughty	0
fantastic	0	impurities	0	nerve	0
fatigue	0	incident	0	obtain	0
features	0	indigenous	0	opponent	0
feces	0	infected	0	orbit	0
federal	0	inhabit	0	order	0
fiancé	0	inspire	0	ornaments	0
firewood	0	institute	0	orphan	0
fist	0	intention	0	otherwise	0
flakes	0	internal	0	overbook	0
flush	0	interrupt	0	oversensitive	0
fluttering	0	ironmongery	0	owl	0
forestation	0	jealous	0	panic	0
formation	0	jewel	0	pardon	0
frame	0	jug	0	passive	0
furs	0	kidney	0	peanuts	0
garment	0	kitten	0	pennies	0
generation	0	lamp	0	percent	0
generous	0	lapped	0	perfume	0
glitter	0	launch	0	pet	0
globe	0	leap	0	phrase	0
glue	0	leopard	0	piaster	0
goose	0	level	0	pincers	0
grains	0	literature	0	plump	0
grid	0	lizard	0	politicians	0
habitat	0	luggage	0	pool	0
hare	0	maintain	0	pounding	0
hatch	0	mask	0	preceded	0
headlines	0	masterpieces	0	present	0
helicopter	0	medal	0	proceed	0
hell	0	melody	0	profess	0
hero	0	mental	0	pros	0
		mess	0	protein	0

provoke	0	submission	0	army	1
puncture	0	sue	0	ass	1
purified	0	sulphur	0	athletics	1
quadruplets	0	survive	0	average	1
realize	0	swan	0	basis	1
recollect	0	swerved	0	beneath	1
recommend	0	sympathy	0	biology	1
refreshment	0	tanning	0	breeding	1
refugees	0	tear	0	cartoons	1
remarkable	0	threshing	0	charge	1
representative	0	tiger	0	cheetah	1
respect	0	tongue	0	cholera	1
revolution	0	tonnes	0	circumstances	1
reward	0	torn	0	climatology	1
rocking	0	transplant	0	cling	1
rooted	0	trapped	0	coach	1
rumor	0	tribal	0	commercial	1
sacked	0	triplets	0	cook	1
scheme	0	trumpet	0	couple	1
schizophrenic	0	tug	0	crime	1
screen	0	turn up	0	criminology	1
screwdrivers	0	twentieth	0	critic	1
seeds	0	twins	0	cruelty	1
seize	0	typewriter	0	cunning	1
single	0	unique	0	curriculum	1
size	0	up-dated	0	degree	1
slaughter	0	upside	0	delay	1
slave	0	van	0	department	1
snore	0	vomit	0	depend	1
so-called	0	wag	0	desertification	1
solar	0	warmth	0	deserve	1
spears	0	wheel chair	0	diarrhea	1
spilt	0	wipeout	0	dysentery	1
spit	0	worn out	0	efficient	1
splash	0	wrap	0	exhausted	1
spy	0	achievement	1	falls	1
stagger	0	advanced	1	fees	1
stock	0	altitude	1	fitted	1
stolen	0	ambulance	1	float	1
sublime	0			flooded	1

flourished	1	rhyme	1	wonder	1
forecast	1	rollers	1	actor	2
fossils	1	samples	1	adaptation	2
fulfill	1	security	1	afford	2
fumes	1	shades	1	age	2
gas	1	sight	1	biography	2
gorilla	1	snow	1	block	2
guilty	1	sociology	1	boredom	2
hold	1	spring	1	check	2
hopeful	1	stand by	1	circuit	2
humble	1	standard	1	code	2
illiterate	1	stare	1	conduct	2
indicate	1	strike	1	constant	2
intend	1	struggle	1	creative	2
latrines	1	sufficient	1	crook	2
leisure	1	supervisor	1	currency	2
marketing	1	surrounding	1	defend	2
menace	1	tap	1	demand	2
minority	1	technique	1	dish	2
normal	1	tend	1	distance	2
obey	1	thirst	1	distribute	2
obligation	1	threaten	1	dive	2
opportunities	1	thriller	1	dramatic	2
overlooks	1	tidy	1	dribbled	2
penalty	1	tourist	1	droppings	2
permanent	1	tragedies	1	drought	2
physical	1	trip	1	duty	2
pick out	1	trunk	1	enables	2
pitch	1	truth	1	eventually	2
plastic	1	typhoid	1	exchange	2
plot	1	unbeatable	1	facilities	2
popular	1	urban	1	fasten	2
practical	1	urgent	1	foul	2
president	1	vision	1	funds	2
propel	1	voluntary	1	goods	2
province	1	welcome	1	graduate	2
rare	1	whistle	1	guards	2
research	1	widow	1	guides	2
reserve	1	will	1	handicapped	2
residents	1	witness	1	highway	2

holy	2	support	2	folk	3
honest	2	systems	2	forced	3
horn	2	through	2	forgive	3
host	2	tobacco	2	free	3
ignore	2	tusks	2	frequency	3
insist	2	victims	2	habits	3
insult	2	wax	2	light	3
international	2	wealth	2	majority	3
limitation	2	welfare	2	manufacture	3
loan	2	wood	2	models	3
magnificent	2	worth	2	olympic	3
mass	2	zoology	2	party	3
means	2	accommodation	3	permission	3
media	2	according	3	persuade	3
meeting	2	available	3	plentiful	3
museum	2	belong	3	power	3
nutrition	2	board	3	project	3
occupy	2	break	3	psychology	3
patient	2	bull	3	puppy	3
perform	2	bushes	3	purpose	3
pleasure	2	care	3	questionnaire	3
post	2	charcoal	3	real	3
pound	2	cleaner	3	recent	3
precious	2	climate	3	relaxation	3
pride	2	comedy	3	require	3
profit	2	committee	3	rhinoceros	3
promote	2	conference	3	service	3
puzzled	2	consequences	3	signal	3
raise	2	contribute	3	stamp	3
record	2	control	3	stream	3
roar	2	co-operative	3	strengthen	3
rules	2	cup	3	technical	3
save	2	deaf	3	track	3
scenery	2	decade	3	attraction	4
select	2	dinosaurs	3	axle	4
sense	2	exhibition	3	brain	4
sheltering	2	extinction	3	blood	4
skills	2	fair	3	card	4
statistics	2	field	3	conditioning	4
stress	2	flats	3	consume	4
				customs	4

engineer	4	mind	6	teasing	12
experience	4	miss	6	kick	12
gear	4	participate	6	collective	21
guests	4	pleasant	6	community	17
household	4	poacher	6	invitation	17
involve	4	point	6	entertain	18
parent	4	social	6	wheel	18
preserve	4	society	6	information	23
print	4	solve	6	goal	25
settle	4	supply	6		
branches	5	surprise	6		
century	5	technology	6		
compose	5	youngster	6		
convinced	5	blowing	7		
efforts	5	concerns	7		
fire	5	container	7		
herd	5	expense	7		
holiday	5	fermentation	7		
industrial	5	income	7		
issues	5	possibilities	7		
mechanic	5	produce	7		
prize	5	proper	7		
probable	5	score	7		
rural	5	valuable	7		
training	5	wildlife	7		
transport	5	consider	8		
arrange	6	favourite	8		
article	6	lead	8		
blindness	6	endangered	9		
company	6	productive	9		
cultivate	6	computer	10		
determined	6	natural	10		
equal	6	opinion	10		
facing	6	satellite	10		
generate	6	species	10		
hard ship	6	survey	10		
imagination	6	compared	11		
local	6	hospitality	10		
marriage	6	competition	12		
		safety	12		