Incidental Vocabulary Learning Opportunities in the Reading Comprehension Passages

Kuni Hikmah Hidayati
Universitas Muhammadiyah Jember, East Java, Indonesia

Doi : 10.31332/ijtk.v2i2.14
[kunihikmah@gmail.com]

Abstract
This paper reports on research into vocabulary learning opportunities provided in the reading comprehension passages. It is a quantitative study with a corpus analysis using AntWordProfiler program. Data was collected from reading comprehension passages involving all words in the passages. The results show that the reading comprehension passages provided a great opportunity to deepen knowledge of first 1,000 most frequent words. However, they did not provide good opportunities to develop knowledge of second 1,000 most frequent words, academic words and unlisted words well. This is because most of the word families found in the reading comprehension passages occurred once and less than five times. In conclusion, the reading comprehension passages provided opportunities to learn first 1,000 most frequent words and lacked the opportunities for second 1,000 most frequent words, academic words and unlisted words.

1. INTRODUCTION
Vocabulary acquisition is essential in language learning (Nation, 2001; Wagner, Muse, & Tannenbaum, 2007; Alqahtani, 2015; Ramos, 2015). It is believed to be the building blocks in learning a second language (Ramos, 2015). Min (2013) also stated the importance of vocabulary acquisition in a second language setting by saying, “a solid foundation of vocabulary knowledge is essential at every stage of the learner’s L2 development”. Without ignoring the importance of other aspects such as grammar, there is a well-known saying by Wilkins that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (Wilkins, 1972). However, it is a common knowledge that vocabulary acquisition is a difficult problem for ESL or EFL students.

Vocabulary acquisition not only occurs intentionally but also incidentally (Hulstijn, 2003; Milton, 2009). Incidental vocabulary acquisition, which is the focus in this paper, was first introduced by Nagy, Harman and Anderson in 1980s (Hill & Laufer, 2003; Gardner, 2008; Milton, 2009; Liu, 2015). Laufer and Hulstijn (2001) defined it as “without learners’ awareness of an upcoming retention test, or without learners’ deliberate decision to commit information to memory”. Incidental learning itself is defined as “the process of learning something without the intention of doing so” (Brown, Waring, & Donkaewbua, 2008). Since it is unrealistic for
students to read and memorize the new words all the time, studies of incidental vocabulary acquisition in second or foreign language learning have got more and more attention.

The term “incidental vocabulary acquisition” has been widely used ever since Nagy, Harman and Anderson put it forward when referring to first language vocabulary acquisition in 1980s (Hill & Laufer, 2003; Gardner, 2008; Milton, 2009; Liu, 2015). It is, then, continuously used not only to refer to first language acquisition but also to second language acquisition (Ellis R., 1994; Laufer & Hulstijn, 2001; Hill & Laufer, 2003; Gardner, 2008; Milton, 2009; Shokouhi & Goosh, 2009; Ender, 2014; Mousavi & Gholami, 2014; Ramos, 2015). Many definitions have been proposed, therefore. Huckin and Coady (1999) in Milton (2009) defined incidental vocabulary learning as “the learning of new words as a by-product of a meaning-focused communicative activity such as reading or listening and interaction”. According to Hulstijn (2003), it is the absence of an explicit instruction to learn. This definition is explained further by Schwarz (2012), “In studies on incidental learning participants were not forewarned that they would be tested after the experiment”. In addition, Kerka (2000) defined incidental learning as simply “unintentional or unplanned learning”. This paper uses the term incidental learning in a way that vocabulary was supposed to be acquired incidentally from reading comprehension passages rather than intentionally learnt.

Second language vocabulary researchers have shown their interests in incidental vocabulary acquisition recently. They have proven that doing language activities such as reading, writing, listening and speaking results in vocabulary acquisition (Lauffer & Hulstijn, 2001; Hill & Laufer, 2003; Pigada & Schmitt, 2006; Brown, Waring, & Donkaewbua, 2008; Shokouhi & Goosh, 2009; Vidal, 2011; Fard & Boroujeni, 2013; Mousavi & Gholami, 2014; Vela, 2015; Nation P., 2015).

Lauffer and Hulstijn (2001) have proven that learners acquire more new words by doing tasks (i.e. reading and writing tasks) which involve more loads. In other words, the more the load of involvement in a task that learners do the more familiar the words (i.e. novel words) will be. The load of involvement has three degrees, namely need, search and evaluation. Need has something to do with motivation (i.e. motivation to learn an unfamiliar word). For instance, when learners read a passage and encounter an unfamiliar word, the 'need' (i.e. need to understand the word) occurs. Then, when they try to find out the meaning of the word (e.g. by searching in a dictionary), they experience 'search'. Finally, 'evaluation' occurs when they have to decide which meaning of the word best suits the context.

Other researchers have also proven that learners acquire vocabulary not only through reading and writing but some have also proven the acquisition of vocabulary through speaking and listening activities (Tekmen & Daloglu, 2006; Pigada & Schmitt, 2006; Wagner, Muse, & Tannenbaum, 2007; Brown, Waring, & Donkaewbua, 2008; Shokouhi & Goosh, 2009; Maghsoudia, Talebib, & Mirkamalic, 2014). Brown, Waring and Donkaewbua (2008), for instance, investigated the acquisition of vocabulary through reading compared to reading to stories and reading while listening. They found that learners indeed acquired vocabulary through all the three modes and that words appearing more often in the text are more likely to be learned and stayed longer in the memory.

Studies have proven that there is a strong link between vocabulary learning and reading comprehension (Matsouka & Hirsh, 2010), compared to listening, speaking and writing. Schmitt (2008, p. 332), even, claimed that reading is perceived to best give opportunities of vocabulary learning, especially in input-poor EFL environments. Moreover, recent studies have linked vocabulary and reading by investigating EFL textbooks in relation to vocabulary knowledge. Gardner (2008), for instance, investigated vocabulary recycling in children’s authentic reading passages. He found out that collections of authentic texts with a common theme, or written by one author, afford readers with more repeated exposures to new words. Another study on vocabulary learning opportunities in an integrated ELT course book was carried out by Matsouka and Hirsh (2010). They analyzed all words appearing in 12 chapters of the book. The study, then, suggested that the book provided opportunities to
increase knowledge of 1,000 most frequent words in English and develop high frequency words as well as academic words.

More specifically, other studies have explained that it is through repetition of unknown words encountered during reading that enables the learning of vocabulary to occur, especially the incidental one. Webb (2017), for instance, has proven that repetition of words in authentic text enables incidental vocabulary learning to occur. He found that one encounter with unknown words results no retention while 3, 7 and 10 encounters do. Then, he suggested that the more repetition the greater vocabulary gains occurred. His research, thus, claimed that repetition does affect incidental vocabulary learning from reading. In line with this, Brown, Waring, & Donkaewbua (2008) found that new words were acquired from reading graded readers and that words appearing more often in a text are more likely to be learned and result long retention.

Most research into vocabulary learning from context has focused on learning from intensive and extensive reading, listening to stories, films and learning from taking part in conversation (Fard & Boroujeni, 2013; Mousavi & Ghoolami, 2014; Tekmen & Daloglu, 2006; Vidal, 2011). These researches used mainly stories, newspaper, and general interest articles. However, very little research has addressed the contribution of academic genres to the vocabulary development of more advanced learners.

In Indonesian contexts, incidental vocabulary acquisition seems to be put aside, proven by very few studies focusing on it. Most of the studies have focused on the teaching of vocabulary (e.g. using certain strategies) in classroom contexts, instead. However, it is limited to rely solely on formal teaching of vocabulary in the EFL classroom since the formal teaching of vocabulary contributes very little to vocabulary acquisition (Ellis, 1994; Harris and Snow, 2004; Takac, 2008). Thus, incidental vocabulary learning seems to be essential to be taken into account.

This current research, therefore, considered investigating repetition of words in texts (further mentioned as ‘reading passages’) to make sure vocabulary learning (of either first & second 1000 most frequent English words or academic words) occurred. However, since the previous studies had not considered context surrounding the repeated words which is helpful to acquire the words, this research included context in analyzing the repeated words. Context is considered necessary to analyze since it helps readers (students) guess meaning of the repeated words. In other words, in order for the repeated words to be acquired, context is necessarily involved.

Furthermore, the reading passages that this research has investigated are the reading comprehension passages found in TOEFL Practice books. The investigation of the reading passages regarding the vocabulary learning opportunities is necessary. This is because vocabulary plays an important role in doing TOEFL successfully. In other words, test takers are required to have adequate vocabulary knowledge to successfully gain their target scores (Cahyono & Widiati, 2008, p. 8; Ivone, 2005, p. 196). Moreover, generally, reading is indeed the principal source of the EFL learners’ vocabulary input (Milton, 2009, p. 193). More importantly, using books or reading passages that provide good opportunities of vocabulary learning is advantageous since two learning activities (i.e. learning vocabulary and reading) occur in the meantime (Huckin & Coady, 1999, p. 182).

Based on the points above, this research has focused the investigation on reading comprehension passages used to prepare for the TOEFL ITP. This was especially a deep-investigation of repetition of words found in the reading passages that makes vocabulary learning (of first & second 1000 most frequent English words and academic words) through reading possible. The repeated words would, then, explain what vocabulary opportunities that the reading passages provided, i.e. whether the reading passages provided opportunities of deepening knowledge of first & second 1000 most frequent English words and or academic words. Thus, the problem of the research is formulated as ‘What vocabulary learning
opportunities are provided in the reading comprehension passages found in the TOEFL book?'

2. LITERATURE REVIEW

This section will explain notions related to vocabulary. First, the importance of vocabulary will be given. Second, terms vocabulary acquisition and vocabulary learning are compared. Following that, the notion of vocabulary acquisition which is divided into intentional and incidental vocabulary acquisition is then explained.

The Importance of Vocabulary

It has been scientifically proven that vocabulary acquisition is essential in language learning (Nation, 2001; Wagner, Muse, & Tannenbaum, 2007; Alqahtani, 2015; Ramos, 2015). It is believed to be the building blocks in learning a second language (Ramos, 2015). Min (2013) also stated the importance of vocabulary acquisition in a second language setting by saying, “a solid foundation of vocabulary knowledge is essential at every stage of the learner’s L2 development”. Without ignoring the importance of other aspects such as grammar, there is a well-known saying by Wilkins that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (Wilkins, 1972).

Acquisition Vs Learning

Some researchers indeed distinguished between terms ‘acquisition’ and ‘learning’ (Krashen, 1989; Ellis, Loewen, Elder, Erlam, Philp, & Reinders, 2009). Krashen (1989) claimed that acquisition can occur without learning. Further, he provided studies to support that; “1) studies that show that competence can develop without instruction(defined as a program based on skill-building);2) “Read and Test” studies that show that acquisition occurs after a small amount of comprehensible input” (Krashen, 1989). However, this paper, in contrast to that, uses the terms ‘acquisition’ and ‘learning’ synonymously.

Vocabulary Acquisition

The term vocabulary acquisition used in this paper refers to foreign or second language vocabulary acquisition (SLVA) since, in Indonesia, English is learned at school but is not used for communication outside the school. Ellis (1999) explained, “Foreign language learning takes place in settings where the language plays no major role in the community and is primarily learnt only in the classroom”. Therefore, vocabulary acquisition meant in this paper is the acquisition of second language vocabulary which is different from that of first language. In the case of first language acquisition, Yule (2006) stated, “there is some “innate” predisposition in the human infant to acquire language”. In other words, human has their ‘natural ability’ in acquiring their first language, even without conscious learning.

However, this is not occurring for those learning a second language. As Yule (2006) explained, “for most people, the ability to use their first language is rarely matched, even after years of study, by a comparable ability in the second language”. Therefore, in SLVA, learners do not ‘automatically’ acquire new words as they do in their first language. For them, the most source of acquiring vocabulary is through learning in the classroom since the language they are learning (i.e. English) is not used for communication (Ellis R., The Study of Second Language Acquisition, 1994; Milton, 2009). Nevertheless, recent studies have found the fact that SLVA not only occurs from intentional learning or formal instruction but also incidental one. This will be pertained to the forthcoming points.
Intentional Vocabulary Acquisition

According to Hulstijn (2003), intentional versus incidental learning are “the presence or absence of an explicit instruction to learn”. Therefore, it is an intentional vocabulary acquisition when learners are given explicit instruction to learn vocabulary. Further, he claimed his agreement with Schmitt (1997) on the definition of ‘intentional’ in vocabulary learning saying, “intentional learning” is commonly given a cognitive interpretation, as the rehearsal and memorizing techniques invoked by learners when they have the explicit intention of learning and retaining lexical information” (Hulstijn, 2003). Barcroft (2009) gave another alternative to define intentional vocabulary acquisition, which is when learners intend to learn to acquire new words. Thus, intentional vocabulary acquisition occurs when learners intend to learn new words or when a teacher intends to teach or give instruction to learners to learn new word.

Incidental Vocabulary Acquisition

The term “incidental vocabulary acquisition” has been widely used ever since Nagy, Harman and Anderson put it forward when referring to first language vocabulary acquisition in 1980s (Hill & Laufer, 2003; Gardner, 2008; Milton, 2009; Liu, 2015). It is, then, continuously used not only to refer to first language acquisition but also to second language acquisition (Ellis, 1994; Laufer & Hulstijn, 2001; Hill & Laufer, 2003; Gardner, 2008; Milton, 2009; Shokouhi & Goosh, 2009; Ender, 2014; Mousavi & Gholami, 2014; Ramos, 2015).

Many definitions have been proposed, therefore. Huckin and Coady (1999) in Milton (2009) defined incidental vocabulary learning as “the learning of new words as a by-product of a meaning-focused communicative activity such as reading or listening and interaction”. According to Hulstijn (2003), it is the absence of an explicit instruction to learn. This definition is explained further by Schwarz (2012), “In studies on incidental learning participants were not forewarned that they would be tested after the experiment”. In addition, Kerka (2000) defined incidental learning as simply “unintentional or unplanned learning”. This paper uses the term incidental learning in a way that the learners are neither learning vocabulary intentionally nor given direct instruction of vocabulary by the teacher. Rather, they are assigned to do language activities (e.g. reading) and do vocabulary tests following the activities.

Stance on Incidental Vocabulary Acquisition

In Indonesian contexts, incidental vocabulary acquisition seems to be put aside, proven by very few studies focusing on it. Most of the studies have focused on the teaching of vocabulary (e.g. using certain strategies) in classroom contexts, instead. However, it is limited to rely solely on formal teaching of vocabulary in the EFL classroom since the formal teaching of vocabulary contributes very little to vocabulary acquisition (Ellis, 1994; Harris and Snow, 2004; Takac, 2008). Thus, incidental vocabulary learning seems to be essential to be taken into account.

Laufer and Hulstijn (2001) have proven that learners acquire more new words by doing tasks (i.e. reading and writing tasks) which involve more loads. In other words, the more the load of involvement in a task that learners do the more familiar the words (i.e. novel words) will be. The load of involvement has three degrees, namely need, search and evaluation. Need has something to do with motivation (i.e. motivation to learn an unfamiliar word). For instance, when learners read a passage and encounter an unfamiliar word, the ‘need’ (i.e. need to understand the word) occurs. Then, when they try to find out the meaning
of the word (e.g. by searching in a dictionary), they experience ‘search’. Finally, ‘evaluation’ occurs when they have to decide which meaning of the word best suits the context.

Other researchers have also proven that learners acquire vocabulary not only through reading and writing but some have also proven the acquisition of vocabulary through speaking and listening activities (Tekmen & Daloglu, 2006; Pigada & Schmitt, 2006; Wagner, Muse, & Tannenbaum, 2007; Brown, Waring, & Donkaewbua, 2008; Shokouhi & Goosh, 2009; Maghsoudia, Talebib, & Mirkamalic, 2014). Brown, Waring and Donkaewbua (2008), for instance, investigated the acquisition of vocabulary through reading compared to reading to stories and reading while listening. They found that learners indeed acquired vocabulary through all the three modes and that words appearing more often in the text are more likely to be learned and stayed longer in the memory.

Of all the research, there has never been any research comparing all the language skill tasks (i.e. reading, listening, writing and speaking tasks) in learners’ vocabulary acquisition aiming at finding out which task is the most effective one in vocabulary acquisition. What is more, incidental vocabulary acquisition which seems to be put aside in Indonesia is claimed to be an effective way of learning vocabulary in addition to formal instructions of vocabulary (Nation, 2001; Brown, Waring, & Donkaewbua, 2008).

Vocabulary Learning Opportunities

Vocabulary learning is the process of knowing the meaning of new words (i.e. new vocabulary). The terms vocabulary acquisition and vocabulary learning are used interchangeably in this article. Thus, incidental vocabulary acquisition and incidental vocabulary learning refer to the same process of knowing the meaning of new words.

Meanwhile, incidental vocabulary acquisition refers to the acquisition of vocabulary through reading with no intention to learn the meaning of unknown words encountered. In other words, they do not focus on acquiring new vocabulary but reading. In this article the focus is on practice reading comprehension preparing for TOEFL tests.

Therefore, the incidental vocabulary acquisition opportunities are possibilities of acquiring vocabulary through learning the collection of reading comprehension passages. The possibilities are due to word repetition occurring in the reading passages.

3. METHODS

The current study provides an in-depth investigation of TOEFL reading comprehension passages used to prepare for TOEFL ITP. The investigation was on repetition of words appearing in the reading passages and exercises following the passages. This follows the findings of several studies which found that repetition of words in reading promotes vocabulary learning (Matsouka & Hirsh, 2010; Webb, 2017). The word repetition being investigated aims to reveal vocabulary learning opportunities of first & second 1000 most frequent English words and academic words provided in the reading passages. This was to reveal if the reading passages was sufficient for the readers to deepen knowledge of first & second 1000 most frequent English words and academic words in order to face the TOEFL. The study, thus, employed a quantitative method. Indeed, quantitative data were needed to reveal that some words in the reading passages occurred at least 5 times, thus, a corpus analysis was employed. To answer the research problem regarding opportunities of vocabulary learning in the reading passages (i.e. reading passages and exercises), the current research required data of words from the reading passages and exercises to further count the repetitions of the words (i.e. once, 5 times or more, 10 times or more and 15 times or more). This was done by using Ant Word Profiler program (Anthony, 2012). Ant Word Profiler is a program developed by Anthony as a more modern version of Nation’s Range program (Heatley, Nation, & Coxhead, 2002). This is the program used by the current study to do the corpus analysis.
4. RESULT AND DISCUSSION

The total number of running words in the reading passages taken as the data is 27,070 tokens. The words were investigated to see what vocabulary learning opportunities provided.

The first investigation was regarding the word repetition. To see if the word repetition found in the reading passages did promote vocabulary learning opportunities, words that belong to the first & second 1,000 most frequent words list, Academic words list and unlisted words (i.e. words that do not belong to either first & second 1,000 most frequent words or 570 academic words lists) were analyzed.

The analysis was on the words that occurred once, at least 5 times, 10 times or more and 15 times or more. One occurrence would be considered giving no opportunities of learning, while 5 and more occurrences would. Twice, 3 and 4 times were not included in the analysis since previous studies found that they were considered giving very few opportunities of learning (Huckin & Coady, 1999; Matsouka & Hirsh, 2010; Webb, 2017).

The analyses of the word repetition was generally to see if there were opportunities to deepen knowledge of the first & second 1,000 words, know better 570 academic words, and learn new words, especially less frequent ones.

Results of the word analysis of all the reading passages for each of the opportunities are shown in the statistics of word analysis below (Table 1).

**Table 1. Statistics of Word Analysis of All Reading Passages**

<table>
<thead>
<tr>
<th>LEVEL FILE</th>
<th>TOKEN</th>
<th>TOKEN%</th>
<th>GROUP</th>
<th>GROUP%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1_gsl_1st_1000.txt</td>
<td>20027</td>
<td>73.98</td>
<td>872</td>
<td>27.50</td>
</tr>
<tr>
<td>2_gsl_2nd_1000.txt</td>
<td>2021</td>
<td>7.47</td>
<td>513</td>
<td>16.18</td>
</tr>
<tr>
<td>3_awl_570.txt</td>
<td>1191</td>
<td>4.40</td>
<td>257</td>
<td>8.10</td>
</tr>
<tr>
<td>-</td>
<td>3831</td>
<td>14.15</td>
<td>1529</td>
<td>48.22</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27070</td>
<td></td>
<td>3171</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 indicates that there were 20,027 tokens or 872 word families of first 1,000 most frequent words in the reading passages. The second 1,000 most frequent words were 2,021 tokens or 513 word families. Moreover, there were also academic words found, i.e. 1,191 tokens or 257 groups or families. Opportunities of learning words of each list were not known yet, however. Therefore, the analysis of the word repetition for each list is given in detail.

**Word Repetition in the First 1,000 Most Frequent Words**

There were 20,027 tokens that belonged to the first 1,000 most frequent words list found in the reading passages. Table 2 shows the word repetition which occurred in the reading passages. The word repetition was put according to the occurrence of ‘once’ ‘5 times or more’ ‘10 times or more’ and ‘15 times or more’ (Table 2).
Table 2. Repetition of Word Families in the First 1,000 Most Frequent Words

<table>
<thead>
<tr>
<th>OCCURRENCE</th>
<th>NUMBER OF WORD FAMILIES</th>
<th>PERCENTAGE OF THE TOTAL NUMBER OF FIRST 1,000 MOST FREQUENT WORDS (872 WORD FAMILIES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once</td>
<td>94</td>
<td>10.78%</td>
</tr>
<tr>
<td>5 Times or More</td>
<td>209</td>
<td>23.97%</td>
</tr>
<tr>
<td>10 Times or More</td>
<td>115</td>
<td>13.19%</td>
</tr>
<tr>
<td>15 Times or More</td>
<td>227</td>
<td>26.03%</td>
</tr>
</tbody>
</table>

The table shows that 872 first 1,000 word families appeared in the reading passages. Of the 872 word families, 227 (26.03%) occurred 15 times or more, 115 (13.19%) occurred 10 times or more and 209 (23.97%) occurred 5 times or more. However, 94 (10.78%) word families occurred only once in the reading passages. Words that occurred 15 times or more are such as rule, ask, and build. Those that occurred at least 10 times are such as develop, wear, and purpose. Moreover, words that occurred at least 5 times are such as district, spend, and result. Meanwhile, words that occurred only once are such as adopt, fellow, and depend.

Word Repetition in the Second 1,000 Most Frequent Words

There were 2,021 tokens that belonged to the second 1,000 most frequent words list found in the reading passages. Table 3 shows the word repetition occurred in the reading passages along with the percentage of the occurrence. The word repetition was put according to the occurrence of ‘once’ ‘5 times or more’ ‘10 times or more’ and ‘15 times or more’. Meanwhile, the percentage was the number of word families occurring in each category divided by the 513 word families found (Table 3).

Table 3. Repetition of Word Families in Second 1,000 Most Frequent Words

<table>
<thead>
<tr>
<th>OCCURRENCE</th>
<th>NUMBER OF WORD FAMILIES</th>
<th>PERCENTAGE OF THE TOTAL NUMBER OF SECOND 1,000 MOST FREQUENT WORDS (513 WORD FAMILIES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once</td>
<td>161</td>
<td>31.39%</td>
</tr>
<tr>
<td>5 Times or More</td>
<td>93</td>
<td>18.13%</td>
</tr>
<tr>
<td>10 Times or More</td>
<td>23</td>
<td>4.48%</td>
</tr>
<tr>
<td>15 Times or More</td>
<td>16</td>
<td>3.12%</td>
</tr>
</tbody>
</table>
The table indicates that of the 513 second 1,000 word families that appeared in the reading passages, less than one-third word families occurred at least 5, 10 and 15 times. They are namely 93 (18.13%) occurred 5 times or more, 23 (4.48%) occurred 10 times or more and only 16 (3.12%) occurred at least 15 times. In contrast to that, 161 (31.39%), which is almost one-third of the total 513 word families occurred only once. The rests, i.e. 220 (42.88%) word families, occurred more than once but less than 5 times.

Words that occurred only once are such as abroad, deserve and conquer. Those that occurred at least 5 times are such as invent, feather and explode. Then, those that occurred 10 times or more are such as argue, govern, and disease. Meanwhile, words that occurred 15 times or more are such as accident, educate and inform.

**Word Repetition in the Academic Words**

There were 1,191 tokens that belonged to the Academic words list found in the reading passages. Table 4 shows the word repetition occurred in the reading passages along with the percentage of the occurrence. The word repetition was put according to the occurrence of ‘once’ ’5 times or more’ ’10 times or more’ and ’15 times or more’ (Table 4).

<table>
<thead>
<tr>
<th>OCCURRENCE</th>
<th>NUMBER OF WORD FAMILIES</th>
<th>PERCENTAGE OF THE TOTAL NUMBER OF ACADEMIC WORDS (257 WORD FAMILIES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once</td>
<td>82</td>
<td>31.91%</td>
</tr>
<tr>
<td>5 Times or More</td>
<td>52</td>
<td>20.23%</td>
</tr>
<tr>
<td>10 Times or More</td>
<td>8</td>
<td>3.11%</td>
</tr>
<tr>
<td>15 Times or More</td>
<td>8</td>
<td>3.11%</td>
</tr>
</tbody>
</table>

The table indicates that of the 257 word families of academic words that appeared in the reading passages, very few word families occurred at least 5, 10 and 15 times. They are namely 52 (20.23%) occurred 5 times or more (e.g. require, expert, research), 8 (3.11%) occurred 10 times or more (e.g. occur, conclude, injure) and only 8 word families (3.11%) occurred 15 times or more (e.g. create, final, area). In contrast, almost one-third, i.e. 82 (31.91%), of the 257 academic words found occurred only once (e.g. abandon, imply, approximate). The rests, i.e. 107 (41.63%) word families, occurred less than 5 times.
Word Repetition in the Unlisted Words

Unlisted words are those that do not belong to either first & second 1,000 most frequent words list or 570 academic words list. The words are such as necklace, cruise, palace, magazine, dweller, victim, pedestrian, and announcement. Of the 27,070 tokens analyzed, there were 3,831 tokens which belonged to unlisted words found in the reading passages. The 3,831 tokens found, however, include proper nouns.

This research, however, excludes proper nouns (i.e. the name of a particular person, place or object) from the analysis. Proper nouns of any language are the same, thus, learning of such nouns is not necessary. For instance, the word “Australia” will mean the same for people of any languages, which is a country, a geographical name. Therefore, proper nouns are excluded from the analysis.

Table 5 below shows the word repetition occurred in the reading passages, along with the percentage of the occurrence. The word repetition was put according to the occurrence of ‘once’ ‘5 times or more’ ‘10 times or more’ and ‘15 times or more’. Meanwhile, the percentage was the number of word families occurring in each category divided by the 1019 word families found.

<table>
<thead>
<tr>
<th>OCCURRENCE</th>
<th>NUMBER OF WORD FAMILIES</th>
<th>PERCENTAGE OF THE TOTAL NUMBER OF UNLISTED WORD FAMILIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once</td>
<td>590</td>
<td>57.90%</td>
</tr>
<tr>
<td>5 Times or More</td>
<td>72</td>
<td>7.07%</td>
</tr>
<tr>
<td>10 Times or More</td>
<td>17</td>
<td>1.67%</td>
</tr>
<tr>
<td>15 Times or More</td>
<td>14</td>
<td>1.37%</td>
</tr>
</tbody>
</table>

The table shows that there were 1,019 word families of the unlisted words found in the reading passages. The table also indicates that of the 1,019 word families, only 10% occurred at least 5, 10 and 15 times. They are namely 72 word families (7.07%) occurred 5 times or more (e.g. huge, beach, hind), 17 (1.67%) occurred 10 times or more (e.g. hen, volcano, fox) and 14 word families (1.37%) occurred 15 times or more (e.g. television, princess, underlined). Moreover, the table unexpectedly shows that more than a half of the total 1,019, i.e. 590 (57.90%), occurred only once (e.g. ambulance, awesome, horrific, inconvenient). The rests, i.e. 326 (31.99%) word families, occurred more than once but less than 5 times.

5. DISCUSSION

This section is the discussion of word repetition, i.e. to what extent word repetition in the reading passages give students opportunities to learn words of first & second 1000 most frequent words and academic words and perhaps other (less familiar) words. This is because a repeatedly read word will, indeed, result familiarity (Huckin & Coady, 1999; Nation, 2001; Webb, 2017). Here are the details:
**Word Repetition in the First 1000 Most Frequent Words**

The data analysis showed that 872 first 1,000 word families appeared in the reading passages. Of the total 872 word families, 227 (26.03%) occurred 15 times or more (e.g. rule, ask, build), 115 (13.19%) occurred 10 times or more (e.g. develop, wear, purpose) and 209 (23.97%) occurred 5 times or more (district, spend, result). In short, 63.19% of the total 872 first 1,000 word families gave opportunities for students to learn. This is as Matsouka and Hirsh (2010) stated that at least 5 encounters with a new word will result in acquisition of the words.

In this case, 209 word families of first 1000 most frequent words were found to occur 5 times or more. This means there was good opportunity for students to learn the 209 word families since they occurred at least 5 times. Moreover, Webb (2017) stated that at least 10 encounters would be suggested for new words to be certainly learned. In fact, 115 word families occurred at least 10 times in the reading passages. This means there was also good opportunities for students to learn the 115 word families. More importantly, there was even a very good opportunity to learn another 227 word families of first 1000 most frequent words list since they occurred 15 times and more. As Webb (2017) further claimed that more than 10 encounters might be needed to optimize vocabulary learning and gain greater results.

However, 94 word families (10.78%) occurred only once in the reading passages (e.g. adopt, fellow, depend). Brown, Waring and Donkaewbua (2008) claimed that a single encounter with an unknown word gives very little opportunity to learn the word. Moreover, Matsouka and Hirsh (2010), even, believed that one encounter with a new word resulted no acquisition. They are indeed logical that if a word occurred only once, then the opportunity to learn the word’s meaning was very little or even not at all. However, since there were only approximately 11% occurred once, then there were still more opportunities to learn first 1000 most frequent words. Hence, the reading passages used to prepare students for their English national examination did give opportunities to learn words of first 1000 most frequent words. In other words, the reading passages gave the opportunities to deepen knowledge of first 1000 most frequent words.

**Word Repetition in the Second 1000 Most Frequent Words**

The data analysis indicates that of the 513 second 1,000 word families that appeared in the reading passages, almost one-third (31.39%), i.e. 161 word families, occurred only once. The words were such as word families of abroad, deserve and conquer. According to Brown, Waring and Donkaewbua (2008), this gives very little opportunity to learn the words’ meaning.

Although many essential words (e.g. accident, argue, disease, explode) were found to occur at least 5 times, the number of the essential words was a lot fewer than that occurring once. They were namely 93 (18.13%) occurred 5 times or more (e.g. invent, feather, explode), 23 (4.48%) occurred 10 times or more (e.g. argue, govern, disease) and 16 (3.12%) occurred at least 15 times (e.g. accident, educate, inform). Thus, there was only approximately 25% of the total words. Therefore, there was lack opportunity to learn second 1000 most frequent words.

Pre teaching of second 1000 most frequent words, therefore, is suggested. This is because almost one-third of the total 513 word families, i.e. 161 (31.39%), occurred only once and 220 (42.88%) word families occurred less than 5 times. More importantly, teachers are suggested to give students additional examples or explanations when new words are found. This can make the words were more familiar to the students. This is especially words that occurred less than 5 times, which is not sufficient to be acquired. Nagy (1988) claimed that vocabulary instruction has to make sure that students not only know the meaning of words but also have sufficient practice with the words to ensure they have the access with the meaning quickly during reading.
Word Repetition in the Academic Words

The analysis of data in the previous chapter indicates that of the 257 word families of academic words that appeared in the reading passages, very few word families (26.45%) occurred at least 5, 10 and 15 times. They are namely 52 (20.23%) occurred 5 times or more (e.g. require, expert, research), 8 (3.11%) occurred 10 times or more (e.g. occur, conclude, injure) and only 8 word families (3.11%) occurred 15 times or more (e.g. create, final, area). In short, there were 26.45% of the total 257 academic words occurred 5 times or more.

In contrast, 107 (41.63%) word families occurred less than 5 times and almost one-third, i.e. 82 (31.91%), occurred only once (e.g. abandon, imply, approximate). Indeed, one encounter with a new word might result in partial learning of the word meaning (Huckin & Coady, 1999; Nagy & Anderson, 1984). However, in the case of academic words, one encounter resulted in lack of exposure and made very few opportunities of learning.

Teachers, therefore, are suggested to create the exposures by giving the students more ‘practice’ with the academic words found during teaching. Moreover, Matsouka and Hirsh (2010, p. 65) suggested direct pre-teaching of such academic words to provide more exposures to the words. Providing more exposures means giving more repetition of words, which according to Nagy (1988, p. 12) is very necessary and worthwhile.

Word Repetition in the Unlisted Words

The data analysis shows that there were 1,019 word families of the unlisted words found in the reading passages. The table also indicates that of the 1,019 word families, only 10% occurred at least 5, 10 and 15 times. They are namely 72 word families (7.07%) occurred 5 times or more (e.g. huge, beach, hind), 17 (1.67%) occurred 10 times or more (e.g. hen, volcano, fox) and 14 word families (1.37%) occurred 15 times or more (e.g. television, princess, underlined). In short, only 10.11% of the 1,019 word families that gives quite good opportunities to be incidentally acquired.

Furthermore, the table unexpectedly shows that more than a half of the total 1,019, i.e. 590 (57.90%), occurred only once (e.g. ambulance, awesome, horrific, inconvenient). The rests, i.e. 326 (31.99%) word families, occurred more less than 5 times. Less than five encounters with words resulted in few opportunities to learn the words in reading (Huckin & Coady, 1999; Matsouka & Hirsh, 2010). Overall, therefore, the reading passages provide very few opportunities for students to incidentally learn unlisted (less familiar) words.

6. CONCLUSION

The word repetition found in the reading passages had been analyzed to see if there were opportunities to deepen knowledge of the first & second 1,000 words, know better 570 academic words, and learn new words, especially less frequent ones. The results revealed that the collection of the reading passages provided a great opportunity to deepen knowledge of first 1,000 most frequent words considering that although many word families occurred once, significant numbers of essential words occurred at least 5 times.

However, it did not provide good opportunities to know second 1,000 most frequent words. Also, the collection of the reading passages did not provide such opportunities to learn academic words and unlisted words well. This is because most of the words occurred once and less than five times. This suggests that the reading passages give very few opportunities to acquire the second 1,000 most frequent words, academic words and unlisted words.
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8. REFERENCES


