# Vocabulary Acquisition through Extensive Reading

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## **ABSTRACT**

Vocabulary acquisition through extensive reading is significant and should be treated with substantial concern. Learning the usage and meaning of words incidentally in their contexts and developing inferencing skill to understand unknown words during extensive reading is a powerful contributor to vocabulary growth. Research showing that incidental vocabulary acquisition through extensive reading and intentional vocabulary instruction are not mutually exclusive, but are complementary. Various strategies for intentional vocabulary acquisition may compensate for the weaknesses and enhance the advantages of incidental vocabulary acquisition through extensive reading in EFL situations.

#### INTRODUCTION

It is widely held that reading written text is crucial so that learners can develop a vocabulary rich enough to communicate beyond basic stages, such as in academic contexts or other professional settings. According to Horst (2005), reading is necessary to expand lexis as written corpora tend to be richer than spoken ones. Therefore, the theory of extensive reading posits that "the ability to read fluently is best achieved through reading extensively in the language" (Renandya, Rajan, & Jacob, 1990). Extensive reading is usually associated with rapid reading of large quantities of material for general understanding and reading fluency (Day & Bamford, 1998; Krashen, 1993; Susser & Robb, 1990).

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The theoretical background of extensive reading is formalized by Krashen (1985), whose "Input Hypothesis", also referred to as "comprehensible input" (p.2) is based on the idea that we acquire language only when we understand messages. According to Krashen's i + I hypothesis, "we progress along the natural order by understanding input that contains structures at our next 'stage'--structure that are a bit beyond our current level of competence" (p.2). This theory is underpinned by Chomsky's (1975) suggestion that there is similar uniformity in the language faculty deep below the individual variety. That is to say, exposed to English within a learner's linguistic competence, all learners can develop their language ability, including reading skill.

As another characteristic, extensive reading usually can facilitate learner autonomy. Day and Bamford (1998) list the characteristics of successful extensive reading, stating that students can select what they want to read and the purpose of reading is usually related to pleasure. In this respect, the extensive reading approach shows sharp contrast with intensive reading, which often includes word by word decoding of difficult material chosen by teachers (Cho & Krashen, 1994; Renandya, 2007). There are many studies which show the benefits of extensive reading for vocabulary learning. For example, one case study showed that second language learners acquired substantial vocabulary as a result of becoming fascinated with reading books (Cho & Krashen, 1994). The subjects of the study had a substantial amount of exposure to the target language vocabulary and the qualitative questionnaire showed that pleasure of reading could make it possible.

Extensive reading seems to be especially important in English as Foreign Language (EFL) contexts (Pigata & Schmitt, 2006). The amount of textbooks available in schools seems to hardly reach the volume necessary to foster the second language (L2) reading fluency. For example, the total number of the reading parts in the textbooks used in Japanese junior and senior high schools, which is usually decided under the guidelines of the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) is about half the size of one average paperback (Yamazaki, 2009).

Despite the need to provide learners with an abundance of material to develop their reading skill, it is likely that extensive reading has not been treated with substantial concern as a pedagogical method. Reasons for this may be associated with pedagogical implications of implementing extensive reading into classrooms. Many teachers perhaps feel resistance against the idea of playing a smaller role when letting the students read books individually in class time and waiting for them to acquire language competence by themselves. Teachers may also feel it difficult to integrate extensive reading in the predetermined curriculum. Furthermore, a reason why extensive reading has not become commonplace in SLA methodologies may perhaps relate to the fact that extensive reading requires considerable time and effort although the ways to increase its efficacy is still a matter of dispute. For

example, regarding vocabulary acquisition through extensive reading, how efficiently substantial volumes of vocabulary can be acquired through extensive reading has yet to be shown.

This literature review will explore some of the main issues in studies about L2 learners' ability to make gains in vocabulary learning through extensive reading. This review begins by considering the relationship between incidental vocabulary learning and extensive reading. First, the key phrase of incidental vocabulary learning will be defined and the difficulties associated with research in this area will be considered. Then research on inference as one of the most important cognitive mechanisms using contextual clues will be reviewed. Thirdly, non-incidental vocabulary learning will be discussed, involving the studies on dictionary and glossary use. Lastly, the tasks and activities which develop vocabulary learning during and after reading will be focused on. This paper concludes by showing the benefits of extensive reading in EFL environments and suggests the complementary relationship between incidental and intentional vocabulary learning through an extensive reading approach.

## LITERATURE REVIEW

## **Incidental Vocabulary Learning**

## Definition and Characteristics of Incidental Vocabulary Learning

L2 incidental vocabulary learning through extensive reading has received considerable recognition from researchers (Dupuy & Krashen, 1993; Gass, 1999; Huckin & Coady, 1999; Hulstijn, 2001; Laufer & Hulstijn, 2001; Pigata & Schmitt, 2006; Rott, 1999). What is generally accepted is that vocabulary is acquired incidentally as a by-product of other cognitive exercises involving comprehension (Gass, 1999). That is to say, salient attention is directed to some other factors other than acquisition of vocabulary while learners are engaged in reading. Incidental learning of vocabulary has some advantages over explicit instruction including the following: words are learned in context and learners can obtain a richer sense of use and meaning of words, and words are more individualized and learner-based because the vocabulary acquisition is dependent on the learner's own selection of reading texts (Huckin & Coady, 1999). These advantages in vocabulary acquisition might be significant in helping learners to use vocabulary appropriately in production, such as syntactical structure, collocation, and moreover in terms of pragmatics.

In terms of the definition of "incidental", Gass (1999) points out that most research deals with incidental learning in a limited setting, "something that is learned without the

object of that learning being the specific focus of attention in a classroom context"(p. 321). In other words, Gass tries to evade the narrow meaning of incidental learning used in those studies because acquisition of vocabulary comes about both by internal, for example, learner-based factors, and external, for example, teacher-based factors. Similarly, Paribakht and Wesche (1999) bring the learner centrally into the picture in light of the notion of incidental learning. They posit incidental vocabulary learning takes place when "learners are focused on comprehending meaning rather than on the explicit goal of learning new words" (p.176).

Incidental vocabulary learning in the second language seems to require repeated exposure in reading and listening to the same words in various contexts and collocations. Vocabulary acquisition through lexical exposure is similar to how native speakers get vocabulary in their first language (Sternberg, 1987). How many and what kinds of encounters with a word are needed for successful vocabulary acquisition has not been fully understood and continues to be argued. For example, McQuillan & Krashen (2008) added the critical commentary to Cobb (2007)'s claim that extensive reading cannot develop L2 learners' sufficient vocabulary level. Cobb's study shows that even if learners read 175,000 words in total, most of the sample ten words did not appear more than 6 times, which frequency is estimated to be the minimum threshold for acquisition of vocabulary (McQuillan & Krashen, 2008, p.104). However, McQuillan and Krashen criticized that L2 learners' reading rate used by Cobb's study was too low. McQuillan and Krashen's study used a reading rate of 100 words per minute, which is widely accepted reading rate for average L2 learners (p.105). Then, they estimate that 60 minutes daily reading over one academic quarter can expose learners to 517,000 English words. McQuillan and Krashen indicate that exposure to this number of words would easily pass the criterion of six encounters with most of the sample words. According to McQuillan and Krashen, extensive reading is a major contributor to vocabulary development to reach an adequate level of reading comprehension of English texts.

Moreover, the study by Kweon & Kim (2008) shows that words of lower frequency are better learned than words of higher frequency when the meanings of the lower frequency words are crucial for comprehension of a text. As can be seen, incidental vocabulary acquisition seems to be an area in dispute and many important questions remain unanswered.

## Methodological Weaknesses of Measurement

Schmitt (2008) claimed a number of "methodological weaknesses" (p.347) of measurement instruments in previous studies which focus on incidental vocabulary learning

through extensive reading. Specifically, he points to "very small amounts of reading, insensitive measurement instruments, inadequate control of text difficulty, small numbers of target words, and no delayed post-tests" (p.347) in the previous studies of incidental vocabulary acquisition in an extensive reading approach. Similarly, Meara (1997) also points out the lack of investigation of the factors that lead to word retention in some studies.

In fact, in some studies including Dupuy and Krashen (1993) and Pitts, White & Krashen (1989), no pretest was used to ensure that the target words had been definitely unfamiliar to the subjects, but only receptive word knowledge was assessed with one multiple-choice task. Moreover, long-term effects of reading for lexical growth were not included in the assessment of word knowledge retention. Rott (1999) also points out the tendency of the early research, saying that some of the studies focused on incidental word gain through reading have "failed to explain, describe and account for factors that favorably affected the condition in which incidental word learning took place" (p.590).

Some of the more recent studies have tried to address these kinds of problems and the results from them using different measurements on incidental learning of unknown words show much better vocabulary uptake rate. For example, Rott (1999) deliberately developed a word checklist in an attempt to examine in more detail whether intermediate learners incidentally acquire and retain unknown vocabulary. The word checklist consists of a pretest to select unfamiliar target words, two types of tests to measure receptive and productive levels of word learning, and also the vocabulary tests conducted three times--immediately after reading, after 1 week and after 4 weeks. Then, Rott assessed the effect of exposure frequency and discovered that only two encounters with unfamiliar words during reading significantly affected learners' vocabulary growth while six exposures produced more vocabulary knowledge.

Horst (2005) is another researcher who has worked to overcome what is called as "methodological weaknesses" (Schmitt, 2008, p.347) which was found in the previous studies on incidental vocabulary acquisition is. Horst discusses "a number of design criteria for valid experimental assessment of vocabulary gains achieved in a program of extensive reading" (p.362) and demonstrates "the innovating methodology proved to be feasible to implement and effective in assessing word knowledge gains" (p.355). Horst's study found that the participants learned more than 50% of unfamiliar words they encountered in their extensive reading. This uptake rate of unknown words is much higher than the numbers shown in previous studies.

Measuring appropriately incidental vocabulary acquisition through extensive reading is difficult because the vocabulary gains from other factors during the study is inevitable, such as the effect of other English classes. It seems especially true when the duration of research is longitudinal, or the size of a study is great. In order to evade such incorrectness

generated from the other factors, studies on incidental vocabulary acquisition through extensive reading sometimes have been conducted on limited amounts of reading, over a short duration, or using a small number of participants. In fact, as Horst (2005) indicated, text lengths treated in some of the studies of incidental L2 vocabulary acquisition through reading were as short as one excerpt (Pitts et al, 1989). However, considering Krashen's (1993) emphasis on exposure to English over long periods, ways of "tackling this measurement challenge" (Horst, 2005, p.355) of lexical acquisition through extensive reading should be explored more. If more sensitive measurement instruments will be used, more accurate outcomes will be indicated, then, as a result, some change may possibly be conceived in pedagogical implications. The next section will focus on another significant issue in incidental vocabulary learning: inferencing of vocabulary reading during extensive reading.

## Inferencing the Meaning of Vocabulary through Extensive Reading

When learners encounter unknown words during reading, they tend to ignore a large proportion of the words, but "for those words they [attend] to, inferencing was the main strategy employed" (Paribakht & Wesche, 1999, p.195). Especially in cases of incidental vocabulary acquisition, inferencing takes a great role. Lexical inferencing "involves making informed guesses as to the meaning of a word in light of all available linguistic cues in combinations with the learner's general knowledge of the world, her awareness of context and her relevant linguistic knowledge" (Haastrup, 1991, p.40). But, this does not necessarily mean inferencing is an easy strategy for L2 learners and readers. How inference takes place successfully or unsuccessfully is going to be discussed.

Firstly, low frequency of multiple encounters with the same words in the text is one cause of unsuccessful inferencing. Secondly, if readers find little or no difficulty in comprehending the sentence or text, the degree of necessity to guess correct meaning of an embedded unknown word will decrease. Moreover, with regard to linguistic context, readers often infer the inaccurate meaning of a word "by giving the wrong meaning to a polysemic word, translating individual morphemes, mistranslating idioms, or confusing the target word with one that looks or sounds similar" (Bengeleil & Paribakht, 2004, p. 226). Finally, one of many different factors is thought to be the high frequency of unknown words in the text, and learners' low proficiency.

Contrary to the afore mentioned factors for wrong guessing, the factors which promote successful inferencing of unknown words will be discussed. One of the most significant points is that high frequency of multiple encounters with the same words in the text or in previous learning is likely to help increase correct inferencing (Paribakht &

Wesche, 1999). Likewise, successful inferencing tends to be affected by the necessity to guess the meaning of a word in order to understand the sentence or text (p.199). Thirdly, a good reader can guess the meanings of some unfamiliar words in a text (Fraser, 1999). For instance, Liu and Nation (1985) studied the relationship between subjects' proficiency level and rate of correct guessing of unknown words. The subjects were L2 teachers of English with different proficiency levels attending a diploma course. The results indicate that groups of learners at high proficiency levels could correctly infer 85% to 100% of the unknown words. On the other hand, the group of learners at the lowest proficiency level examined inferred successfully between 30% and 40% of the unknown words. Moreover, skillful use of linguistic context will contribute to successful inferencing as Bengeleil & Paribakht (2004) point to that "higher-proficiency readers were more able to use certain linguistic cues, such as suffixes and prefixes".

Additionally, another important factor for correct inferencing is the amount of the other unknown words in the text. For example, a study by Liu and Nation (1985) shows readers could infer the meaning of unknown words more correctly when 96% of the other words were known than when reading a text with only 90% known. As can be seen, factors relate to successful and unsuccessful inferencing are multitudinous and complex. In order to systematize the inferencing process, Paribakht & Wesche (1999) classifies the knowledge sources and contextual clues that readers use in inferencing into categories: "linguistic sources" (p.205) such as knowledge of grammar, morphology, homonyms, punctuation, discourse, and "extralinguistic sources" (p.205) including topic and world knowledge. Moreover, the unpredictability of successful inferencing may lead some researchers to think that "the uneven success in guessing suggests the inferencing skills need to be taught" (Schmitt, 2008, p.351).

In light of pedagogical implication, Schmitt (2008) listed seven factors which affect the likelihood of inferencing success, including the importance of the context with adequate clues to guess, the usefulness of cognates, and background knowledge. On the basis of the idea that "inferencing is a complicated process and we cannot assume that learners will automatically be successful" (p.153), Schmitt explains one method for "a systematic approach to guessing from context" (p.153), which was originally proposed by Clarke and Nation (1980). This method, which provides teachers with the way to develop learners' successful inferencing, consists of the guessing procedure from lexical context, including part of speech, signposts and punctuation, and the method of confirming the correctness of guessing. Although Schmitt (2008) acknowledges this method may be elaborate and initially time-consuming, the guessing procedure is expected to become automatic as learners get gradually accustomed to it.

Another researcher who supports the idea of possibility and necessity to reinforce learners' guessing ability is Horst (2005). He suggests that for helping learners utilize extensive reading more effectively, it is important "to train them in lexical inferencing" (p.350). Walters (2004) focuses on a positive effect of instruction in the use of context to infer the meanings of unknown words. Walters emphasizes the students' benefits "from having their attention drawn to the use of context" (p.243). Moreover, she discusses two major focuses of vocabulary acquisition: acquisition through direct instruction of vocabulary words and incidental vocabulary acquisition through exposure to context. She clearly demonstrates that "these two ways of acquiring vocabulary are complementary" (p.243). That is to say, learners can develop vocabulary acquisition both by being taught or studying the target words directly and by encountering words in context (Nation, 2001). Incidental vocabulary learning may be enforced by direct instruction and vocabulary learning tasks in addition to extensive reading.

This review, beginning with discussion on the relationship between incidental vocabulary learning and extensive reading, will turn to the second main heading of intentional vocabulary acquisition through extensive reading. Dictionary and gloss use will be discussed in the next section and then the significance of tasks for vocabulary acquisition will continue to be discussed.

# **Intentional Vocabulary Learning**

## The Use of a Dictionary and a Gloss

Many studies have indicated that the vocabulary retention as a result of inferring is rather low (Mondria, 2003). Nation (2008) clearly describes three major benefits of dictionaries; helping learners understand words that they encounter in reading and listening, helping them find words that they need for speaking and writing, and helping them remember words. A gloss is "a brief definition or synonym, either in L1 or L2, which is provided with the text" (p.174).

In terms of the effect of the use of a dictionary and a gloss, Hulstijn, et al (1996) compare the gains of vocabulary in three different conditions. One group of advanced L2 readers were given the meanings of unknown words through marginal glosses, and in another group the participants looked up the meanings in a dictionary, and in a control group any external information on the meanings was not provided. The results showed that the effect of marginal glosses was greater than that of dictionary use, and the gains acquired with dictionary use exceeded those by the control group. The results indicated that the gloss was found to be more efficient because intermediate and advanced L2 learners seldom use a

dictionary, but if they use a dictionary, vocabulary learning will be as good as or better than when they are provided with marginal glosses. Additionally, regarding the benefit of gloss use, the study by Nation (2001) demonstrated that a gloss works as a useful tool in reading difficult texts, gives accurate meanings for words that might not be inferred correctly, and is less of an interruption to the reading process than dictionary use.

Hulstijn et al (1996) list favorable factors to improve low retention rate of incidental vocabulary learning: the provision of marginal glosses, the use of a dictionary, and the reappearance or reoccurrence of the new words in text. Once learners infer the wrong meaning of an unknown word, they will not correct it easily. Without an opportunity to correct the erroneously inferred meaning, the recurrence of the word in a text will bring a contrary effect. In light of this, Hulstijn et al (1996) seem to claim the effect of "frequency of occurrence will foster incidental vocabulary learning more when second language readers are given the meanings of unknown words through marginal glosses or when they look up meanings in a dictionary" (p.327).

Laufer and Hustijn (2001) argues the concept of *involvement* regarding the cognitive process of vocabulary acquisition and retention. Three factors combine into what is called *involvement*: *need*, *search*, and *evaluation*. *Involvement* can be thought "as a motivation-cognitive construct which can explain and predict learners' success in the retention of hitherto unfamiliar words" (p.14). The *need* component relates to motivation to comply with the task requirements. *Need* is moderate when it is provided by an external agent while *need* is strong when it is generated from within the learner's self. *Search* is the information processing dimension of *involvement* and relates to the attempt to find the meaning of an unknown L2 word. Evaluation is another cognitive dimension of *involvement*, relating to a comparison of a given word with other words to assess whether a word does or does not fit its context.

One, two, or all three of the factors of *involvement* may be induced to learn a word or a communicative situation. That is to say, "*involvement* load is defined here as the combination of the presence or absence of the *involvement* factors" (p.15). Specifically, writing a composition holds the greatest *involvement*, reading comprehension plus filling in the blank activities follows, and reading with glosses involves the least involvement. In general, as the *involvement* increases in learning vocabulary, learners will more likely to retain these items both in form and in meaning.

By using the concept *involvement*, the degree of remembrance and retention of vocabulary in various learning methods could be explained analytically. However, in some practical situations, vocabulary learning and retention in L2 seem to be more complex than *involvement*. Mondria (2003) investigated the effect of a meaning-given method versus a meaning-inferred method on the retention of word meanings. The study on L2 learners of

French showed that learning words through the meaning-given method leads to a similar level of retention as learning words through the meaning-inferred method. The result was opposite to her hypothesis that deep processing through inferencing would achieve better retention. Regarding implications for foreign language teaching, the meaning-given method is suggested to be preferable to the meaning-inferred method because one has to invest less time for a similar level of retention. Here, one consideration is going to be added on the relationship of *involvement* and the result of this study. If the *involvement* load predominantly decides the degree of the word acquisition, Mondria's prospect that deep processing through inferencing would achieve better retention than the meaning-given method would have coincided with the result of the study. However, its result was actually different: learning through a meaning-inferred method shows the same level of retention rate as a meaning-given method. Perhaps, many different and complex factors should be taken into consideration. The combination of various elements including inferencing, contextual clues, using a gloss and a dictionary, and a teacher's input may affect the process of word acquisition.

Under the topic of intentional vocabulary learning, the use of a dictionary and a gloss has been considered in light of involvement. In the next section, a task-based exercise, which is another essential issue for intentional vocabulary learning through extensive reading will be discussed.

## Vocabulary Learning Tasks

#### Negotiation tasks.

Although Krashen (1989) stated that "comprehensible input alone can do the entire job for vocabulary" (p.448) and maintained consistently that output tasks do not result in more proficiency, many researchers and writers of textbooks suggested that vocabulary learning from extensive reading may be enhanced by linguistic and communicative tasks (Horst, 2005; Ellis & He,1999). A variety of linguistic activities after extensive reading has been studied, but in this paper research on tasks of negotiation and use of word cards will be focused on.

As for the issue of the depth of processing, cognitive psychologists seem to be unified in their view that memory performance is determined by the nature of the processing activities in learner's mind. Craik and Lockhart (1972) argued that "what was critical was not how long information is rehearsed, but rather the depth to which it is processed" (as cited in Anderson, 2010, p.151). Moreover, several levels of processing depth are suggested by Craik and Lockhart (1972). For example, "processing the meaning of a new lexical item

takes place at a rather deep level whereas processing the phonological form takes place at a rather shallow level" (Laufer and Hulstijn, 2001, p.5).

Ellis and He (1999) in terms of negotiation in incidental vocabulary learning examined how efficiently communicative tasks enhance the understanding and retention of new words. They investigated the acquisition and retention of vocabulary learning, by comparing different effects of premodified input, interactionally modified input, and modified output in a listen-and-do task. Firstly, the result showed the modified output group showed higher comprehension and vocabulary acquisition than either of the input groups. Secondly, the study indicated that the modified output condition indicated superiority in promoting retention. They analyzed the results and suggest that producing new words helps learners to process them more deeply than just hearing them.

Moreover, Ellis and He (1999) analyzed the results of the study, "modified output condition afforded them a qualitative different discourse experience" (p.298). That is to say, in modified output, two students provide scaffolding for each other and can check whether the partner has successfully accomplished understanding the meaning. Two participants in this modified output group could collaborate effectively to achieve their goal and made a success in making a good condition for language learning. Enough scaffolding and feedback for language acquisition could not be found in other two groups of premodified input and interactionally modified input.

Similarly, Newton (1995) recognizes the effect of the negotiation of meaning in vocabulary acquisition, specifically stating that negotiation is seen "as a key resource for making language input (i.e., unfamiliar vocabulary) comprehensible and for providing a vehicle for feedback on language production" (p.161). However, at the same time, Newton adds that negotiation is not always "a precursor to learning a new vocabulary" (Gass & Selinker, 2008, p.465) and shows complex reaction to the issue of negotiation. Newton's case study was conducted in which an adult learner of English encounters new vocabulary in negotiation tasks. A Taiwanese subject in the case study acquired some new words from meaningful communication with other non-native speaker interlocutors, when dictionaries and teacher's input were not provided. Specifically, the students had 56 unknown words in the pre-test. Then, the group members actively use words which were previously unknown to the subject. During that task they used 39 hitherto unknown words, by embedding them in the context. The post-test shows that the subject gained 21 words from the previously unknown vocabulary. Namely, the acquisition rate is 52%. On the other hand, 18 words were still left unknown after the negotiation task. This study demonstrates the effectiveness and limitation of negotiation tasks. Therefore, Newton's reflection on this study is as follows: more detailed study should be further conducted to make the effect of negotiation task clear, more deliberate attention should be paid to "the internal processes" of learners

while observing group interaction, and more sensitive instruments should be developed to measure the degrees of vocabulary acquisition. Next, the effect of another vocabulary task of using word cards will be considered.

## Vocabulary acquisition using word cards.

Learning from word cards is another useful way of efficiently increasing vocabulary size through intentional learning. The usual way is to write the word or phrase to be learned on one side of the card and its meaning on the other in L1 or L2. The main purpose of word cards is to encourage repeated inputs and quick retrieval.

Word cards can provide learners with a great opportunity for repetition. The use of word cards greatly increases the frequency of encounters with unknown words. According to Horst (2005), one of the advantages of extensive reading is to develop a more rapid recognition of frequent words, and finally approach automaticity in recall (p.376). It is true that what is gained in vocabulary learning through extensive reading will enforce further reading fluency. However, in reality, the frequency of multiple encounters of the same word in extensive reading is unpredictable and may be difficult to control. The time interval between word exposures must be shorter for the effective learning of a word (Anderson, 2010). Therefore, the frequency of sporadic encounters with a word through extensive reading can be indisputably increased by word cards (Nation, 2008).

For the purpose of moving words from receptive to productive vocabularies, the usage of word cards may be thought useful. Learners' lexical ability has been categorized in two ways. Nation (2008) distinguishes between receptive or recognition vocabulary and productive vocabulary. Laufer and Paribakht (1998) referred to vocabulary understood in reading (receptive vocabulary) as passive vocabulary and what is used in writing or speech (productive vocabulary) as active vocabulary. If using this terminology, the repeated retrieval of receptive vocabulary will eventually lead to productive retrieval (Schmitt, 2008, p.315). Then, receptive and productive retrieval strategy which has been achieved through repeated word cards practices will make negotiation tasks easy. When writing a book report, doing an oral summary, or participating in discussion in activities in an extensive reading programme, the ability of productive retrieval will work significantly. Oxford and Crookall (1990) regard the use of word cards as decontextualized learning. The gain of words by decontextualized strategies is criticized because it does not provide actual usage in a communicative context. Although the remembering and recalling without any context may work as a disadvantage, making an effort to remember and recall the meaning will result in "faster and longer retained learning" (Nation, 2008, p.79). Moreover, if learners manage to

recall the meaning once, the successful recall helps to increase the chances that something will be remembered.

## **CONCLUSION**

Extensive reading can be significantly important for the learners of English as a second language. The theoretical background of extensive reading is Krashen's (1985) "Input Hypothesis" that claims we acquire language only when we understand messages. Following his i + 1 hypothesis, we can progress naturally by comprehending input which includes features a bit beyond our current competence. Moreover, Krashen's theory is underpinned by Chomsky's (1975) assertion that there is similar uniformity in the language faculty deep below the individual differences. That is to say, exposure to English within or a bit beyond the current level of a learner's linguistic competence can develop the learner's language ability. In this sense, extensive reading seems to be especially important in EFL contexts because the exposure to the target language is very limited for the learners studying English in such situations. However, despite the need to provide learners with an abundance of material to develop their reading skill, it is likely that extensive reading has not been treated with substantial concern as a pedagogical method. This may be partly related to the fact that extensive reading requires considerable time and effort and the ways to increase its efficacy is still a matter of dispute and efficiency of vocabulary acquisition through extensive reading has also yet to be shown.

The literature review in this paper analyzes the research of incidental and intentional vocabulary acquisition through extensive reading. First, inadequate and incorrect ways of measurement or assessing the efficiency of incidental vocabulary acquisition through extensive reading in the previous studies may be one cause for undervaluing extensive reading. Schmitt (2008) points out this kind of "methodological weaknesses" (2008, p.347) of measurement and Meara (1997) points out the lack of investigation of the factors that lead to word retention in previous studies. However, some of the more recent studies have tried to address these kinds of problems and the results from them using different measurements on incidental learning of unknown words show a much better vocabulary uptake rate. For example, Rott (1999) and Horst (2005) deliberately developed a word checklist and many design criteria for valid experimental assessment respectively.

Measuring appropriately incidental vocabulary acquisition through extensive reading is difficult indeed because of the possibility of vocabulary gains from other factors during a longitudinal study. However, if more sensitive measurement instruments continue to be developed and applied, more accurate outcomes will be indicated and as a result, the issue

of vocabulary acquisition through extensive reading will be considered more seriously, and treated and implemented as an important method in classrooms.

Secondly, inferencing takes a great role when learners encounter unknown words during extensive reading, especially in cases of incidental vocabulary acquisition. Lexical inferencing is complicated strategy involving making informed guesses for the appropriate meaning of a word, and learners usually use all available linguistic cues and knowledge in the context and their background general knowledge. Although successful or unsuccessful inferencing generally depends on many factors such as frequency of multiple encounters with the same words in the text, the necessity to guess the meaning of a word in order to understand the sentence or text, and the amount of the other unknown words in the text, the unpredictability of successful inferencing may lead some researchers to think that the inferencing skills need to be taught. Schmitt (2008) acknowledges the method of training inferencing may be elaborate and initially time-consuming, the guessing procedure is expected to become automatic as learners get gradually accustomed to it. Moreover, Horst (2005) suggests that for helping learners utilize extensive reading more effectively, it is important to train them in lexical inferencing. Incidental vocabulary acquisition through inferencing is one of the most important components in extensive reading, but the skill of inferencing may be enforced by direct instruction and vocabulary learning tasks. Positive effects of intentional instruction added to incidental vocabulary learning through inferencing unknown words might be worth considering.

Thirdly, in terms of the importance of intentional vocabulary learning, Mondria (2003) indicates the vocabulary retention as a result of inferring is rather low and Nation (2008) clearly describes some major benefits of dictionaries and glosses. Learning vocabulary through inferencing cannot always be favorable because without an opportunity to correct the erroneously inferred meaning, the recurrence of the word in a text will bring a contrary effect (Hulstijn et al, 1996). In light of this, Hulstijn et al claim the effect of recurrence of the same vocabulary will be increased when learners are given the meanings of unknown words through marginal glosses or when they look up meanings in a dictionary. Moreover, Mondria (2003) investigated the effect of a meaning-given method versus a meaning-inferred method on the retention of word meanings. The study on L2 learners of French showed that learning words through the meaning-given method leads to a similar level of retention as learning words through the meaning-inferred method. The result was opposite to her hypothesis that deep processing through inferencing would achieve better retention. Taken these things into consideration, the combination of various incidental and intentional elements including inferencing of the meaning, contextual clues, using a gloss and a dictionary, and a teacher's input, may enhance the rate of improving the word acquisition.

Lastly, learning from word cards, which encourage repeated input and quick retrieval, is another intentional and useful vocabulary-learning tool and if it is combined with incidental vocabulary learning, the effect is thought to be further increased. One of the advantages of extensive reading is to develop a more rapid recognition of recurrent words, and finally approach automaticity in recall (Horst, 2005). What is gained in vocabulary learning through exposure to English reading materials will enforce further reading fluency. However, in reality, the frequency of multiple encounters of the same word in extensive reading is unpredictable and uncontrollable. The time interval between word exposures must be shorter for the effective learning of a word (Anderson, 2010). Therefore, the frequency of sporadic encounters with a word through extensive reading can be greatly increased by word cards (Nation, 2008) as memory of words is intensified.

Consequently, various strategies of intentional vocabulary acquisition may compensate for the weaknesses and enhance the advantages of incidental vocabulary acquisition through extensive reading as well. According to Schmitt (2008), direct learning "can help incidental learning by raising consciousness of particular words and providing knowledge that can be enriched and strengthened through incidental meaning focused learning" (p.316). Incidental vocabulary acquisition and intentional vocabulary acquisition through extensive reading are not mutually exclusive, but are complementary. Incidental vocabulary learning can cover what intentional vocabulary learning cannot cover and vice versa. Learning the usage and meaning of vocabulary in contexts and developing inferencing skill to understand unknown words during extensive reading are powerful contributors to vocabulary growth. Additionally, extensive reading accompanies pleasure of reading and gives learners the motivation to voluntarily try to understand and continue to read. In this respect, vocabulary acquisition through a substantial amount of exposure to the target language can be thought of more seriously in vocabulary acquisition in EFL situations. According to Paribakht & Wesche (1999), "[a]lthough multiple encounters with given words during reading leads to increased knowledge of the words, a combination of reading and text-based exercises demanding different kinds of analysis and practice of the words is more effective for vocabulary learning" (p.200).

## REFERENCES

Anderson, J.R. (2010). *Cognitive Psychology and Its Implications*. New York: Worth Publishers.

Bengeleil, N.F., & Paribakht, T.S. (2004). L2 reading proficiency and lexical inferencing by university EFL learners. *The Canadian Modern language Review*, 61, 225-49.

- Cho, K-S., & Krashen, S.D. (1994). Acquisition of vocabulary from the Sweet Valley Kids series: Adult ESL acquisition. *Journal of Reading*, 37, 662-667.
- Chomsky, N. (1975). Reflections on Language. New York: Pantheon Book.
- Clarke, D.F., & Nation, I.S.P. (1980). Guessing the meanings of words from context: *Strategy and techniquesSystem*, *8*, 211-220.
- Cobb, T. (2007). Computing the vocabulary demands of L2 reading. Language Learning & Technology, 11, 38-63. Retrieved May, 8, 2011 from http://llt.msu.edu/vol11num3/cob.
- Craik, F.I.M., & Lockhart, R.S. ((1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior*, 11, 671-684.
- Day, R.R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. New York: Cambridge University Press.
- Dupuy, B., & Krashen, S. (1993). Incidental vocabulary acquisition in French as a foreign language. *Applied Language Learning*, *4*, 55-63.
- Ellis, R., & He, X. (1999). The roles of modified input and output in the incidental acquisition of word meanings. *Studies in Second Language Acquisition*, 21, 285-301.
- Fraser, C.A. (1999). Lexical processing strategy use and vocabulary learning through reading. *Studies in Second Language Acquisition*, *21*, 225-241.
- Gass, S. (1999). Discussion: Incidental vocabulary learning. *Studies in Second language Acquisition*, 21, 319-333.
- Gass, S.M., & Selinker L. (2008). *Second language acquisition: An introductory course*. New York: Rutledge.
- Haastrup, K. (1991). Lexical inferencing procedures or talking about words: Receptive procedures in foreign language learning with special reference to English. Tubingen, Germany: Gunter Narr.
- Horst, M. (2005). Learning L2 vocabulary through extensive reading: A measurement study. *The Canadian Modern Language Review*, *61*, 355-382.
- Horst, M., Cobb T., & Meara, P. (1998). Beyond A Clockwork Orange: Acquiring second language vocabulary through reading. *Reading in a Foreign Language*, 11, 207-223.
- Huckin, T., & Coady, J. (1999). Incidental vocabulary acquisition in a second language. *Studies in Second Language Acquisition*. 21, 181-193.
- Hulstijn, J.H. (2001). Intentional and incidental vocabulary learning: A reappraisal of elaboration, rehearsal, and automaticity. In P. Robinson (Ed.), *Cognition and second language instruction* (pp.258-286). New York: Cambridge University Press.
- Hulstijn, J.H., Hollander, M., & Greidanus, T. (1996). Incidental vocabulary learning by advanced foreign language students: The influence of marginal glosses, dictionary use, and reoccurrence of unknown words. *The Modern Language Journal*, 80, 327-339.

- Krashen, S.D. (1985). *The Input Hypothesis: Issues and Implications*. New York: Longman Inc.
- Krashen, S.D. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the Input Hypothesis. *Modern Language Journal* 73: 440-464.
- Krashen, S.D. (1993). *The power of reading: Insights from the research*. Englewood, CA: Libraries Unlimited.
- Kwenon, S-O., & Kim, H-R. (2008). Beyond raw frequency: Incidental vocabulary acquisition in extensive reading. *Reading in a Foreign Language*, 20, 191-215.
- Laufer, B., & Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics*, 22, 1-26.
- Laufer, B., & Paribakht, T.S. (1998). The relationship between passive and active vocabularies: effects of language learning context. *Language Learning* 48, 365-391.
- Liu, N., & Nation, I.S.P. (1985). Factors affecting guessing vocabulary in context. *RELC Journal*, 16, 33-42.
- McQuillan, J., & Krashen, S.D. (2008). Commentary: Can free reading take you all the way? A response to Cobb (2007). *Language Learning & Technology*, 12. 104-108.
- Meara, P. (1997). Models of vocabulary acquisition. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp.109-121). Cambridge: Cambridge University Press.
- Mondria, J. (2003). The effects of inferring, verifying, and memorizing on the retention of L2 word meanings: And experimental comparison of the "meaning-inferred method" and the "meaning-given method." *Studies in Second Language Acquisition*, 25, 473-499.
- Nation, I.S.P. (2001). *Learning vocabulary in another language*. New York: Cambridge University Press.
- Nation, I.S.P. (2008). *Teaching vocabulary*. Massachusetts: USA, Heinle, Cenegage Learning.
- Newton, J. (1995). Task-based interaction and incidental vocabulary learning: A case study. *Second Language Research*, 11, 159-177.
- Oxford, R., & Crookall, D. (1990). Vocabulary learning: A critical analysis of techniques. *TESL Canada Journal*, 7, 9-30.
- Paribakht, T.S., & Wesche, M. (1999). Reading and "incidental" L2 vocabulary acquisition: An introspective study of lexical inferencing. *Studies in Second Language Acquisition, 21,* 195-224.
- Pigada, M., & Schmitt, N. (2006). Vocabulary acquisition from extensive reading: A case study. *Reading in a Foreign Language*, 18, 1-28.

- Pitts, M., White, H., & Krashen, S. (1989). Acquiring second language vocabulary through reading: A replication of the Clockwork Orange study using second language acquirers. *Reading in a Foreign Language*, *5*, 271-275.
- Renandya, W.A. (2007). The power of extensive reading. RELC Journal 38, 133-149.
- Renandya, W.A., Rajan, B.R.S., & Jacob, G.M. (1990). Extensive reading with adult learners of English as a second language. *RELC Journal*, *30*, 39-60.
- Rott, S. (1999). The effect of exposure frequency on intermediate language learners' incidental vocabulary acquisition and retention through reading. *Studies in Second Language Acquisition*, *21*, 589-619.
- Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. Language Teaching Research, 12, 329-363.
- Sternberg, R.J. (1987). Most vocabulary is learned from context. In M.G.McKeown & M.E. Curtis (Eds.), *The nature of vocabulary acquisition* (pp.89-105). Hillsdale, NJ: Erlbaum.
- Susser, B., & Robb, T.N. (1990). EFL extensive reading instruction: research and procedure. *JALT Journal*, 12, 161-185.
- Walters, J. (2004). Teaching the use of context to infer meaning: A longitudinal survey of L1 and L2 vocabulary research. *Language Teacher*, *37*, 243-252.
- Yamazaki, A. (2009). Tadokuno-koka [The effect of extensive reading]. *Journal of Environmental and Information Studies Musashi Institute of Technology*, 10, 84-91.