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교육학석사학위논문

The Effects of Involvement Load of Tasks  
and Exposure Frequency on  
L2 Vocabulary Learning of  
Korean Middle School Learners of English

과업관여도와 단어노출빈도가 중학교 영어 학습자의  
제2언어 어휘 학습에 미치는 영향

2019년 8월

서울대학교 대학원

외국어교육과 영어전공

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The Effects of Involvement Load of Tasks  
and Exposure Frequency on  
L2 Vocabulary Learning of  
Korean Middle School Learners of English

by

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# The Effects of Involvement Load of Tasks and Exposure Frequency on L2 Vocabulary Learning of Korean Middle School Learners of English

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이 논문을 교육학 석사 학위논문으로 제출함

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L2 Vocabulary Learning of  
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# ABSTRACT

Words are the basis of foreign language learning. Effective learning of more words in less time has been of great interest in Korean classroom situations where English is taught as a foreign language (EFL). Among many variables that influence vocabulary learning, the purpose of this study is to investigate the effects of two key factors that can be manipulated, task-induced involvement load and word exposure frequency, on second language (L2) vocabulary learning. Until now, there have been a few studies combining task involvement and word repetitions, and even few studies dealing with both variables have made contradictory conclusions regarding which factor is more important in vocabulary acquisition and retention. In addition, there is a limit in that the majority of the studies did not meet the minimum exposure to the target words, which is at least 6 times.

Experiments were carried out with sixty 9<sup>th</sup> graders (43 advanced and 17 intermediate learners) by assigning them tasks with different task-induced involvement index and word repetitions. Two vocabulary tasks were completed at different times, with three glossed readings inducing less involvement, and one sentence-writing task inducing higher involvement load. All participants performed each task alternately in two sessions. Up to 12 word exposures for each target word were made in the reading task and 7 word repetitions in the writing task. At the end of each session, an immediate vocabulary retention test was taken, which consisted of active learning test and passive word test.

As a result of two-way repeated ANOVAs, this study found that word exposure frequency had a greater effect on word acquisition than task-induced involvement load. If at least six sufficient word exposure conditions were met, three reading tasks with glosses resulted in better vocabulary retention effects than one sentence-writing task. In the overall test and the active word test, two different combinations of task-induced involvement load and word occurrences had a significant impact on word acquisition, but no significant effect on the passive word test. On the other hand, in relation to the learner's proficiency level, the higher learners showed better word acquisition than the intermediate learners in all the test types. In addition, regardless of the learner's level, all the participants showed a tendency to acquire the words significantly better in the condition of three reading tasks with glosses. Therefore, these consistent results provide teachers and material developers with pedagogical implications for effective vocabulary instruction in EFL contexts.

Key Words: L2 vocabulary learning, involvement load hypothesis,  
word exposure frequency, learner proficiency

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# **CHAPTER 1.**

## **INTRODUCTION**

This chapter outlines the present research with respect to its motivation and organization of the thesis. The purpose of the study is introduced in Section 1.1, followed by research questions in Section 1.2. The organization of the thesis is described in Section 1.3.

### **1.1 The Purpose of the Study**

Vocabulary is a basic building block of language learning. Word knowledge especially plays an important role in the foreign and second language (L2) acquisition. There is general agreement that without grammar knowledge, people can still understand and convey messages in L2; but without vocabulary, it is not possible to communicate in the target language. With the increased interest in L2 vocabulary learning, a rapidly expanding body of research has examined how words can best be learned as well as factors affecting L2 word acquisition and retention (Nation, 2001). The focus of this study is to examine the impact of the differential degree of task-induced involvement and word exposure frequency on L2 vocabulary learning.

Given many variables that influence word gains, Rott's (1999) study on vocabulary learning shed some light on this issue for language instructors.

Summarizing previous studies, the researcher stressed the conditions under which word acquisition could occur and factors that might potentially be influenced and manipulated. In the same vein, Peters, Hulstijn, Sercu, and Lutjeharms (2009) stated two variables that presumably were key factors in promoting vocabulary knowledge: elaboration of word processing and word repetition, namely, a qualitative and quantitative dimension of word learning. For many years, there has been a general consensus that the more attention is paid to the new information and the more elaborate it is processed, the higher are the chances it will be retained (Anderson, 2005). On the basis of elaborate processing, Hulstijn and Laufer (2001a) attempted to extend these general constructs of cognition such as attention, elaboration, or noticing to the micro-level domain of L2 vocabulary learning and proposed the task-specific constructs, which was called the task-induced involvement load hypothesis.

The word exposure frequency is another crucial factor that may favorably affect the way in which humans acquire L2 vocabulary. Previous studies (Cho & Ma, 2013; Rott, 1999; Waring & Takaki, 2003; Webb, 2007) have found positive effects of word repetition on L2 word knowledge improvement; words that are met more frequently are better acquired and retained. However, a challenge is that class time is generally limited and teachers are unable to allocate adequate time to teach L2 vocabulary. To increase the possibility of word gains in such time constraints in the L2 educational settings, the pedagogically relevant question is whether enhanced reading conditions can speed up the vocabulary acquisition process; that is, which vocabulary task enables learners to gain more target words;

how many exposures to a lexical item are required for vocabulary acquisition; and what is the optimal and realistic combination of task-induced involvement load and word exposure frequency? To date, research on L2 word acquisition has separately examined the effects of task-induced involvement load and word occurrence on L2 vocabulary gains. Surprisingly, there was little research that combined both lines of research despite the fact that these two factors can be manipulated separately as well as in different combinations. Nor is the result of few studies combining these two variables consistent and the findings remain mixed. Thus, the current study aims to gain insight into the relative efficiency of the different combination of word learning conditions of two variables, involvement load of tasks and word exposure frequency. In addition, it would be meaningful to closely probe into how these effects would be different in relation to proficiency levels of L2 learners for better vocabulary instruction in teaching English to Korean learners of English.

## **1.2 Research Questions**

The research questions under investigation for the present study are as follows:

1. To what extent do the level of involvement load and frequency of exposure influence L2 vocabulary learning?
2. Does the impact of task-induced involvement load and exposure frequency vary according to learner proficiency?

## **1.3 Organization of the Thesis**

This thesis consists of the following six chapters. Chapter 1 introduces the motivation and the significance of the current study and raises the research questions. Chapter 2 states a review of previous studies on two variables affecting L2 vocabulary learning: task-induced involvement load and exposure frequency. Chapter 3 describes the participants and the instruments used in the experiment. Chapter 4 reports the results and Chapter 5 discusses the findings with relation to each of the two research questions. Chapter 6 concludes the study with a brief summary of the major findings and pedagogical implications for effective vocabulary instruction and provides suggestions for further research.

# **CHAPTER 2.**

## **LITERATURE REVIEW**

This chapter reviews previous literature related to the current study in three parts. Section 2.1 introduces the characteristics and necessity of L2 vocabulary learning. Section 2.2 reviews the quantitative nature of word learning, word frequencies. Section 2.3 discusses the qualitative aspects of vocabulary, that is, task-induced involvement load.

### **2.1 L2 Vocabulary Learning**

In the field of second and foreign language pedagogy, vocabulary learning can be divided into two types depending on whether conscious attention is paid on vocabulary: intentional learning and incidental learning (Hulstijn & Laufer, 2001a). In relation to intentional vocabulary learning, the focus is on learning target words as the term ‘intentional’ implies (Gass, 2013). In methodological terms, intentional learning of vocabulary is also believed to occur when learners are told that they would be tested afterward on their recall and indeed they take tests about the vocabulary they encountered during tasks (Hulstijn & Laufer, 2001a).

On the other hand, incidental vocabulary learning takes place as a by-product when learners do something else, such as reading a passage or writing (Gass, 2013; Krashen, 1989). The purpose is not on vocabulary learning, but learners spontaneously recognize and retain information for unknown words as frequently

meeting the words in context. In operational terms, incidental acquisition of vocabulary also happens when learners are asked to take vocabulary tests without being informed in advance (Hulstijn & Laufer, 2001a).

The findings of the prior literature have not given definite answers regarding the relative efficacy of the intentional and incidental way of vocabulary learning. Some argued that intentional and explicit learning led to better L2 vocabulary outcomes than natural text-based input (Laufer, 2005; Schmitt, 2008). According to Konopak et al. (1987), intentional learning group with target words highlighted and a redefinition task promoted greater retention of the words than incidental learning group and control group despite that vocabulary learning did occur for the incidental learning group as well. Admitting the effectiveness of intentional learning of vocabulary, however, there have been numerous investigations to substantiate the advantages of incidental vocabulary learning.

To begin with, there has been substantial evidence that learners could promote vocabulary knowledge on their own without instruction (Cho & Krashen, 1994; Curtis & Dolch, 1939; Day, Omura, & Hiramatsu, 1991; Krashen, 1989; Nagy, Anderson, & Herman, 1987). Krashen (1989), for example, emphasized the importance of incidental vocabulary acquisition through comprehensible input. The researcher claimed that comprehensible input was a necessary and sufficient condition for language development and extensive reading provided this condition. In a case study with four adult immigrants learning English as a second language, the participants demonstrated greater gains in vocabulary as well as comprehension and speaking competence after reading graded reader series, which

were both comprehensible and interesting, as a free voluntary reading program (Cho & Krashen, 1994). There was a similar picture in the study done by Day et al. (1991), which investigated the relationship between sustained silent reading and indirect vocabulary learning in the EFL situation. Among other evidence, the study of Nagy et al. (1987) was particularly significant. It was shown that school-aged children picked up words at an incredibly rapid rate, an average of several thousand words per year, which could not be explained by direct instruction alone. It was evident that even the most successful vocabulary programs could not cover this large number of new words perfectly. Another interesting and impressive case was provided by Curtis and Dolch (1939). In a simple experiment, the subjects from grades two through eight took a spelling test of 500 words, some of which had been already studied in previous years but others had not been yet taught. The results revealed that the learners could spell words that they had not learned. More specifically, eighth-graders spelled 82.3% of the lexical items in the chapters that had not been explicitly dealt with during the lesson.

In addition to the effectiveness of natural vocabulary acquisition without instruction, in reality, it is doubtful whether L2 learners could acquire every new word in an intentional way because of limited class time in school settings. Put it in more detail, in Korean middle schools, eight class periods are usually spent on teaching one unit of a textbook, and only ten to fifteen minutes of the first period of the unit is devoted for vocabulary instruction. For the rest of the time, incidental acquisition of words happens as a by-product of reading a text or completing a writing activity. A similar observation was reported in a non-Korean context. With



classroom observations, Durkin (1979) pointed out that vocabulary teaching was rare. In 4,469 minutes of class time, 19 minutes, which was only a fraction of the whole instruction, were given to instructing words. In a study conducted by Beck (1979), a similar pattern was confirmed. During the basal reading programs, learners encountered new lexical items only three times: once when they recognized and guessed the meaning of the key words before reading, the second time during reading a text, and the last time doing exercises after reading. As Jenkins, Stein, and Wysocki (1984) mentioned, “direct teaching of vocabulary is not a prominent classroom activity” (p. 784), and incidental learning from context could be a practical option for L2 learners to make large changes in vocabulary development.

Furthermore, the size of the English vocabulary makes it difficult for learners to develop vocabulary knowledge only through instruction and explicit learning. Highly educated native speakers are generally reported to know about 20,000 word-families (Goulden, Nation, & Read, 1990; Zechmeister, Chronis, Cull, D’Anna, & Healy, 1995). Such an enormous number of words are too much to be a realistic goal for L2 learners. To find out what vocabulary size was needed for L2 learners, Nation (2006) tried an impressive experiment. He employed fourteen 1,000 word-family lists using the British National Corpus and measured how many words L2 learners needed in order to gain adequate understanding in reading a novel, newspapers, graded readers, watching a children’s movie, and dealing with unscripted spoken English. His conclusion was that L2 learners need to have around 8,000 to 9,000 word-family vocabulary to read written texts without any

assistance outside the text. To gain unsupported comprehension for the spoken language such as a movie or a spontaneous conversation, a vocabulary of 6,000 to 7,000 was required, which was less than what was needed for written English. Given the size of vocabulary to be learned and the limited instruction time, direct teaching of vocabulary played a limited and trivial role in a whole picture of the vocabulary learning process (Nation, 2001).

To sum up, in order for L2 learners to enhance vocabulary knowledge, it is strongly advised to employ not only explicit way of word instruction in a formal classroom setting but also incidental acquisition through extensive exposures both inside and outside of school. The effect of natural acquisition of vocabulary without instruction has been proven by many studies. Incidental learning through exposures is also realistic in a foreign language educational setting which is characteristic of the limited time and lack of vocabulary instruction. The enormous size of English vocabulary is another barrier for learning words only via direct instruction. There is less time to do intentional learning than the amount of vocabulary to be learned, so it is necessary to find out what conditions are effective in learning vocabulary at a given time. To explore this condition in more detail, previous studies on two important variables affecting L2 vocabulary acquisition will be reviewed in the next section.

## **2.2 Quantity of Vocabulary Learning: Frequency of Exposure to Words**

L2 vocabulary acquisition is contingent upon how elaborate learners process new words (Hulstijn & Laufer, 2001a) and how many times word repetition occurs (Nation & Ming-Tzu, 1999). The importance of word exposure frequency as a text variable for L2 learners' vocabulary growth is generally acknowledged by researchers. It has been also repeatedly verified by empirical studies that demonstrated words with repeated encounters were likely to have more chances of being learned and recalled (Cho & Ma, 2013; Eckerth & Tavakoli, 2012; Rott, 1999). In practice, however, vocabulary instruction does not occupy a large proportion of the course time, and time allotment is crucial for L2 learners to have maximum language input under such a limited learning environment. Realizing the inevitable limitation for developing vocabulary is of particular importance given that it raises a question that practically and feasibly how many times a new word needs to be met through reading or writing for it to be acquired. So far, there has not been any consensus among researchers regarding the definite number of word occurrences in the text for vocabulary learning to take place. The study by Nagy, Herman, Anderson, and Pearson (1985) indicated that only a single encounter with a word was unlikely to produce full word knowledge. Likewise, in Horst's (2005) study, any lexical items that occurred only once in reading were regarded as poor test targets and removed from the test lists. Same as the study put forward by Horst (2005), Nation (2001) stressed the importance of repetitive word exposure for

better word knowledge gains. Taken together, it could be concluded that words need to be encountered at least two or more times in order to be learned.

Though there are not an optimal number of repetitions that ensure learning, there seems to be a desirable figure. According to Nation (2001), around ten encounters with an item were required for successful vocabulary learning. In a related vein, Brown, Waring, and Donkaewbua (2008) proposed that more than seven to nine times was a sufficient number for long-term word retention. The study by Waring and Takaki (2003) also yielded similar results. They put 25 target words into five groups according to word recurrences in the text: one time, 4-5, 8-10, 13-14, and 15-18 times. It turned out that eight repetitions should occur for 50 percent retention of new words on the recall test three months later. Rott's (1999) findings confirmed that six exposures to a lexical item had measurable and considerable effects on receptive as well as productive lexical development. Concerning receptive and productive word gains, the difference between two and four exposures was small whereas learners in the six-exposure reading condition gained significantly more words than those in two or four exposures. Webb (2007) also revealed that more than seven to nine encounters were needed for greater word gains.

In summary, the findings of the previous research demonstrated that repetitive word exposures resulted in better word knowledge gains. However, there exist realistic constraints because of the time limit in class time. Although the exact number of exposures required for mastering a word is not clear, the desirable figure of meeting words in context might be at least more than six or seven times

to have a considerable effect on vocabulary knowledge.

In fact, the equivocal number of word exposures required for vocabulary learning may be attributed to the different conditions of vocabulary learning in each study. Task-induced involvement load could be among the conditions. Therefore, the variable of task-induced involvement affecting L2 vocabulary acquisition will be reviewed with the number of word exposures in the study.

## **2.3 Quality of Vocabulary Learning: Vocabulary Tasks with Varying Involvement Loads**

This section reviews previous research investigating the qualitative aspects of vocabulary learning. Section 2.3.1 reports the depth of processing hypothesis. Section 2.3.2 presents the involvement load hypothesis. Lastly, empirical studies on the basis of the involvement load hypothesis are shown in Section 2.3.3.

### **2.3.1 Depth of Processing**

Researchers have conducted numerous research on human memory and information processing. Traditional models of human memory focused on multistore such as sensory registers, short-term store, and long-term store and their retention characteristics; the previous research further tried to explain how information was “transferred from one store to another” (Craik & Lockhart, 1972, p. 671). The concept of “levels of processing”, which was put forward by Craik

and Lockhart (1972), was a breakthrough given that it recognized qualitative changes in the memory code instead of relying on the established multistore theories of memory. This new concept hypothesized that there were a number of hierarchical stages of information processing; that is, once the stimulus was perceived, it underwent several levels of processing from shallow to deep. The lower stage pertained to an analysis of physical or sensory features of input such as the pronunciation of words. The deeper stage was concerned with a more abstract process such as matching, recognition of patterns, and semantic encoding. These series of qualitative processing stages were referred to as “depth of processing” (p. 675). According to the theory, the deeper the input was analyzed, the longer it was retained in memory.

After three years, the idea of “depth of processing” was modified by Craik and Tulving (1975). Instead of the previous notion, the researchers suggested that “degree of encoding elaboration” should be a more appropriate term asserting that contextual richness in which stimulus was processed and how elaborately and meaningfully the input was analyzed were more important than the depth of processing. This alternative framework was, several decades later, criticized by Hulstijn and Laufer (2001a). By pointing out two problems of the framework, the researchers claimed the involvement load hypothesis: depth of processing was impossible to be operationalized, and a certain task could not be validated as being processed in the deeper level than another.

### 2.3.2 The Involvement Load Hypothesis

Hulstijn and Laufer (2001a) revised Craik and Tulving's (1975) notion of the depth of processing and proposed the involvement load hypothesis in the field of L2 vocabulary learning. Involvement loads are defined as the extent to which learners are involved in processing newly met words. Hulstijn and Laufer (2001a) referred to involvement as "a motivational-cognitive construct which can explain and predict learners' success in the retention of hitherto unfamiliar words" (p. 14).

Hulstijn and Laufer (2001a, 2001b) operationalized three components of involvement of a vocabulary task: *need*, *search*, and *evaluation*. By assigning the numerical index to each component, the researchers intended to compare the involvement load of vocabulary tasks and identify which vocabulary task was more effective than another. The first component, *need* is in the non-cognitive, motivational dimension, and it is a learner's drive to achieve the task requirement. When need is imposed by an external agent such as a teacher or parents, it is moderate (index 1); whereas a self-imposed need is regarded as strong (index 2). Unlike need, the second and third component, *search* and *evaluation*, are cognitive, non-motivational constructs. *Search* refers to how much effort a learner makes in order to find the meaning of an unfamiliar L2 word; when it is given without any efforts on the part of the learner as in the case of glossed words presented in the text margin, it is considered absent (index 0). If the learner makes attempts to know the meaning, it is regarded present (index 1); a case in point is that an unknown word is so necessary for understanding a text that the learner is

voluntarily looking it up in a dictionary. *Evaluation* is a decision making about whether a new word fits best in context “based on a criterion of semantic and formal appropriateness of the word” (Hulstijn & Laufer, 2001a, p. 15) and has two degrees of prominence; moderate (index 1) and strong (index 2). If the learner wants to select the most suitable meaning of a word among several given options and compares each other in the context, it is moderate. However, if he or she writes original sentences and has to make a decision about whether a word is semantically and grammatically right in the context, it is deemed strong.

In summary, vocabulary tasks differ in the involvement load they induce and the involvement load of a task is composed of the combination of the three factors: need, search, and evaluation. Each factor has the differing degree of prominence such as absent or present (moderate or strong) and the sum of these constitutes the involvement load. It ranges from 1 (moderate need, no search, and no evaluation) to 5 (strong need, search, and strong evaluation). According to Hulstijn and Laufer (2001a), the task that induces stronger involvement in the word is predicted to yield better retention than the task with weaker involvement load.

Three vocabulary tasks with different involvement load were suggested by Hulstijn and Laufer (2001a): reading with gloss, filling in gaps, and sentence writing. In reading with gloss, participants are asked to read a text in which target words are printed in bold font. Then they are to answer some multiple-choice comprehension questions while referring to L1 translations or explanations of the gloss given in the margin of the text. In terms of involvement load, its involvement load index is 1, which is the lowest among the three tasks, provided that it induces



moderate need, induced by the task (index 1), no search, and no evaluation.

The task with the second-lowest involvement load is reading with gap-filling. As in the reading task with gloss, learners are provided with a reading passage, but the target words are removed and replaced by the blanks. The task is to fill in the blanks with correct words from the list which consists of target words and distracters. Its involvement load is 2, as it induces moderate need (index 1), no search, and moderate evaluation (index 1) since all the listed words have to be evaluated against each other in the given context.

The sentence writing task is the one with the highest involvement load. As the name suggests, subjects are instructed to write their own sentences featuring the target words. Its involvement index is 3, which is the highest among the three tasks because it induces moderate need (index 1), no search, and strong evaluation (index 2).

### 2.3.3 Empirical Studies Concerning the Involvement Load Hypothesis

After the involvement load hypothesis was put forward by Hulstijn and Laufer (2001a), some empirical studies have been conducted to verify the hypothesis (Cho & Ma, 2015; Eckerth & Tavakoli, 2012; Folse, 2006; Hulstijn & Laufer, 2001b; Jing & Jianbin, 2009; Keating, 2008; Kim & Na, 2010; Kim, 2008; Lee, 2006; Park & Oh, 2015; Park, 2016; Soleimani & Rahmanian, 2015; Yang, 2015). However, the results of the previous studies are not generalizable to a wider population of L2 learners with diverse characteristics for the following reasons.

First, participants were mostly university students and high school students. Acknowledging the importance of word learning for learners in the beginning stage and during early school years, research on middle school students needs to be carried out to provide a whole picture.

Proficiency level was also believed to be a significant factor in many previous studies, but there was little research on the potential relationship between L2 proficiency level and task-induced involvement load. Even a few studies investigating word retention effects according to learner proficiency levels failed to provide unequivocal results. For example, research by Cho and Ma (2013) showed that the task inducing higher involvement load resulted in greater word learning for low-level students. Keating (2008) obtained similar results substantiating the claim of the involvement load hypothesis suggested by Hulstijn and Laufer (2001a). However, in the research done by Kim (2008), the difference in the effect of reading task with gloss (index 1 in terms of the involvement load) and gap-filling task (index 2) turned out to be insignificant for the advanced learners.

Thirdly, a substantial body of research explored the qualitative and quantitative nature of vocabulary learning; that is, varying tasks of vocabulary learning and the frequency of exposure to the target words. However, most of the vocabulary learning studies have separately focused on the extremes and only scraps of research addressed the interaction of the two variables together. Few studies combining these two factors even produced mixed results regarding which of these two variables was more important in L2 vocabulary growth.

Laufer and Rozovski (2011) examined how the task type (Focus on Form vs. Focus on Forms) and the number of encounters with words had an effect on long-term retention of newly met words. Of the two variables, the type of task was found to have a stronger effect than multiple retrievals of the target word. Webb's (2005) study was in accordance with Laufer and Rozovski (2011). By comparing one sentence production task (high involvement + low exposure) with three tasks of reading glossed sentences (low involvement + high exposure), the researcher argued the superiority of exercise type over word occurrences when time on tasks was uncontrolled; More specifically, in his two experiments, the first experiment found that the reading task with three encounters to the target words promoted larger gains in vocabulary knowledge than one writing task, when time on tasks was controlled. The different pattern was shown in the second experiment where the allotted time on tasks was not given. If enough time was allowed as long as the task required, the sentence production task was more effective than three reading tasks.

Folse's (2006) study was distinguished from the research mentioned above in that it concluded multiple encounters to a word were a more crucial factor than task type in L2 vocabulary acquisition. These somewhat different findings of research rendered us to further probe into L2 word acquisition as a function of two factors, task-induced involvement load and word occurrences.

Based on the findings of the previous studies, this study aims to investigate which is more important between varying combinations of task involvement load and word frequency. In the next chapter, a methodology for this will be proposed.

## **CHAPTER 3.**

# **METHODOLOGY**

This chapter outlines the methodology employed in the present study. The following sections introduce the detailed information about this study: participants in Section 3.1, instruments used in the study in Section 3.2, assessment and scoring procedures in Section 3.3, and the study design in Section 3.4. Finally, Section 3.5 describes how data analysis is done.

### **3.1 Participants**

The participants were 80 Korean 9<sup>th</sup>-grade students enrolled in a public middle school located in Incheon, South Korea. A quasi-experimental research design was used in the present study and accordingly two advanced classes consisting of about 20 students each and two intermediate classes composed of around 20 students each were included in this study. To ensure that they were representative of learners in EFL contexts, students who have lived or studied in English-speaking countries for more than 6 months were excluded from the study through screening. The judgment of students' competence was determined by the comments from their English teacher based on their class performance and homework assignment, as well as the score of the achievement tests: the average scores of mid-term and final exam conducted during the previous semester.

Based on the means of the two achievement tests, 57 students whose scores

were within 20% of all were selected as advanced groups. Those of which scores were from 31 to 70% were categorized as intermediate learners (23 students). To make sure the gap between the advanced groups and the intermediate participants, 4 learners of 21-30% bands were excluded in the experiment (Yang, 2015). Two advanced groups were named as A-1 and A-2 and two intermediate groups were labeled as I-1 and I-2. The homogeneity between proficiency groups (A-1 vs. A-2; I-1 vs. I-2) was checked through independent two-sample t-test: proficiency levels as the independent variable and the English test mean scores of the first semester as the dependent variable.

## **3.2 Instruments**

In this section, the selection of target words and the adaptation of texts are described. The explanation of tasks and assessment will follow.

### **3.2.1 Target Words**

Twenty words were chosen for this experiment. Following previous studies (Hulstijn & Laufer, 2001b; Kim & Na, 2010; Kim, 2008; Park, 2016; Yang, 2015), unknown vocabulary to the participants was selected as target words in the present study. The target words and distracters selected for the study are presented in Table 3.1. To ensure that the subjects did not have any previous knowledge of the

words, a vocabulary pilot test was developed in the form of a checklist and administered to a group of 9<sup>th</sup>-grade students (n=8) whose proficiency level was similar as the actual participants and the 11<sup>th</sup>-grade students (n=101) whose level of proficiency was much higher than any of the actual subjects. The result of testing the 11th graders was that they did not know most of the words, aside from three distracters: there were 10 students knowing the word *dodge* (9.9%), 7 knowing *frantic* (6.9%), and 9 knowing *halt* (8.9%). Rest of the words was unknown to them. The three words above were all distracters, which would not affect the scoring of the target words and the result of the experiment. Likewise, the result from the pilot test with the 9th graders showed that none of the target words was familiar with them.

Unlike the previous research, in which 10 words had been chosen, a pool of 20 lexical items was made in order to get reasonably reliable data. To be specific, the selected words were divided into two sets: set I was composed of 5 target words and 5 distracters, and so was set II. Target words in both sets were deemed to be of similar difficulty because they were all taken from the same frequency bands (off-list words based on Middle School Vocabulary Lists [MSVL], which is the corpus-based school subject lists). Two sets of target words, each with two nouns (*balustrade, smokestack, cask, rustler*) and three verbs (*slant, slither, snarl, snort, thump, whinny*), were created.

**Table 3.1 Target Words and Distracters**

	<b>set I</b>	<b>set II</b>
<b>Target Words</b>	balustrade (N) slant (V) slither (V) smokestack (N) snarl (V)	cask (N) rustler (N) snort (V) thump (V) whinny (V)
<b>Distracters</b>	dodge (V) frantic (A) gasp (V) glossy (A) stumble (V)	colt (N) halt (V) hooves (N) rein (N) scramble (V)

*Note.* N = noun, V = verb, A = adjective.

### 3.2.2 Text

The reading material for the experiment was adapted from chapter books well within the participants' current level of reading proficiency. Research indicated that 95% of the words in the text, or preferably, 98% of the vocabulary need to be familiar for the readers to use the clues for guessing unfamiliar words, thus potentially yielding the successful guessing and general comprehension (Hsueh-chao & Nation, 2000). To ascertain this condition satisfied, the reading text was

designed as the following steps.

First, the chapter books *Magic Tree House* series *Ghost Town at Sundown* (Osborne, 1997) and *Tonight on the Titanic* (Osborne, 1999), which have been known for its popularity among young students, were chosen considering the subjects' level of reading proficiency as well as the general vocabulary level of the 9<sup>th</sup>-grade students. Its Lexile is 550L, which is assumed to be well within most of the Korean 9<sup>th</sup>-grade students given that 1040L-1350L is the average Lexile measure for the 9th graders in the case of native speakers of English.

Then, to select low-frequency words as target words, a program called VocabProfile was used. The VocabProfile is “the on-line version of the lexical frequency profiling (LFP) program” (Horst, 2005, p. 364). The chapter books that had been chosen were typed by the researcher for analysis using the VocabProfile. As a criterion to identify low-frequency words, the words were selected only when they did not appear on lists of the 1,000 or 2,000 most common word families of English (West, 1953) or on the Academic Word List (Coxhead, 2000). These words are likely to be already known to the participants through multiple exposures. Some words in the original texts were altered by the researcher to render the target words appear repetitively after discussion with a native speaker who majored in English education and has considerable experience in teaching. Using the texts prepared in this way, the tasks assigned to the participants were created. A more detailed explanation of the tasks will be given in the next Section 3.2.3.

The text of chapter books was modified in order to include the target words



with assigned frequencies. The number of encounters to words in both tasks should be at least more than six or seven times as mentioned in the literature review Section 2.2. In the writing task with high involvement load and low word frequency, each word appeared 7 times in various sentences: ordering the scrambled words and writing original sentences. In the reading task with gloss, a word was spread over three texts and showed up from at least 9 times to 12 times. More detailed information about the exposure frequency of target words in reading tasks is presented in Table 3.2.

**Table 3.2 Exposure Frequency of Target Words in Reading Tasks**

	Target Words	Reading 1		Reading 2		Reading 3		Total
<b>set I</b>	balustrade (N)				4		5	9
	slant (V)	2		3	3		2	10
	slither (V)	2		2	3		3	10
	smokestack (N)				5		5	10
	snarl (V)	2		3			5	10
<b>set II</b>	cask (N)	6	3					9
	rustler (N)				3	3	5	11
	snort (V)	2	3		3	2	2	12
	thump (V)	3	4				4	11
	whinny (V)		2		3	3	2	10

*Note.* N = noun, V = verb.

### 3.2.3 Tasks

In the current study, two tasks were compared: the reading comprehension task with marginal glosses (task inducing lower involvement load with higher word frequencies: LI\_HF) and the sentence-writing task with target words (higher involvement task with lower word frequencies: HI\_LF). Reading with marginal glosses is one of the common activities inside as well as outside the classroom in Korea. As Korean College Scholastic Ability Test (CSAT) has the same question format, students practice this type of task very often and accordingly are accustomed to it. In reading a passage with glossed words, comprehension questions were asked in order to ensure that the students read the passage for understanding. The score of the comprehension questions was not analyzed since it was not the main concern of the study. The actual reading tasks used for the study are presented in Appendix 1 (1-1, 1-2, 1-3) and Appendix 3 (3-1, 3-2, 3-3).

The writing activity is not as common as the reading with gloss task, but it is regarded as the most efficient tool that would help students enhance memorization of new words (Laufer & Rozovski, 2011). In the study, the writing task was adapted from Hulstijn and Laufer (2001a) considering the level of writing proficiency of middle school students in EFL contexts. As it is too burdensome for most middle school students to write a whole composition on their own, the writing composition task was replaced by the sentence-writing task. In the writing task, the target words appeared in the context of sentences from the same text used in the reading task as well as other sources such as a dictionary. The actual writing

tasks employed for the experiment are shown in Appendix 2 and Appendix 4. The reading task with filling in gaps was excluded because its index was neither lowest nor highest; it also failed to produce unequivocal results on word retention (Kim, 2008). In addition to these two tasks, distracter tasks such as word association task were inserted not only to prevent the subjects from remembering the target words as they completed the repeated tasks but to maintain equivalent time on task for all the participants.

The two variables, task-induced involvement load and word frequency, can be manipulated separately as well as in different combinations. In the experiment, two combinations of the two variables, i.e., LI\_HF and HI\_LF were chosen to compare the relative efficacy of different word learning conditions on L2 vocabulary gains: three reading tasks with glosses vs. one sentence-writing task. The reason why three reading tasks inducing low involvement load and one sentence-writing task inducing high involvement load were chosen among many possible combinations was that the blends of treatment reflected the authentic curriculum of middle school English subject in Korea. In most English classes, eight periods are generally devoted to instructing one unit of a textbook. Among these, three periods (from the fourth to the sixth period) are usually spent on teaching reading texts, and one period for a writing section (during the seventh period). That is, the ratio of reading to writing is three to one. Based on the national curriculum of Korea, the current study was targeted for three receptive tasks with low involvement and one productive task for validation. The detailed information of the two tasks used in the current study is shown in the following

Table 3.3, based on the descriptions of the task-induced involvement load in Section 2.3.2.

**Table 3.3 Task Characteristics**

Task	Involvement load	Task frequency (Word occurrences)
Reading with gloss (LI_HF)	index 1 (moderate need, no search, no evaluation)	three times (9-12 times)
Sentence writing (HI_LF)	index 3 (moderate need, no search, strong evaluation)	once (7 times)

### 3.3 Assessment

To assess the extent to which two different learning conditions affected L2 vocabulary acquisition of the participants, two kinds of tests were employed. Section 3.3.1 introduces the test instrument for measuring passive word knowledge and scoring rubrics. Section 3.3.2 states a scoring rubric for active word learning test.

### 3.3.1 Passive Word Learning Test

Gass (2013) stated that there were degrees of vocabulary knowledge, ranging from form to use. To know a word involves that a learner actually knows how to write its spellings, understands its meanings, and uses it appropriately in possible contexts in concordance with other words semantically as well as syntactically. Nation (2001) even proposed nine different aspects of word knowledge. With vocabulary knowledge of multiple dimensions and continuum, the process of acquiring word is understood as gradual and incremental rather than having zero or complete knowledge (Folse, 2006). When this cumulative learning process is bolstered through multiple contexts, L2 vocabulary learning can be substantial.

Among various aspects of word knowledge, tests of meaning (passive word learning test) and form (active word learning test) were administered in the experiment because they are deemed among the most important features in knowing a word (Nation, 2001). The order of tests proceeded from the active word learning test to the passive word learning test to prevent the memory effect (Webb, 2005). Learners first completed the active test and then the passive test so that they would not refer to the hints or meanings from the passive tests.

The posttest was the same as the pretest and the scoring of it was done in the same way as that of the pretest. In each session, 5 target words and 5 distracters made up the 10 words on the test. The distracters were not scored since there was not any research interest in the distracters. In the passive test, the students were asked to write the L1 translation of the English word (see Appendix 5 and

Appendix 6). The scoring of the passive word learning test was done in a lenient way (Folse, 2006). A score of 0, 0.5, or 1 was awarded for each word: totally incorrect meaning or blank was given zero points. A partial meaning was awarded 0.5 points acknowledging anyhow a small but positive contribution was made to word knowledge under the L2 word learning condition no matter how incomplete and superficial it may seem. Half credit was also given for the words that were correct in meaning but incorrect in terms of part of speech. A correct meaning was worth one point.

All the scoring procedure was done by the researcher and another English teacher who has been teaching English for 9 years in middle school and high school. Cronbach's alpha was calculated to check inter-rater reliability using the IBM Statistical Package for the Social Sciences (SPSS) version 22. The attained values were 0.996 for the passive test.

### 3.3.2 Active Word Learning Test

As for the active test, the participants were to write English orthography corresponding to the given word meaning in Korean (see Appendix 5 and Appendix 6). The scoring of the active test was completed by using the scoring criteria of Barcroft (2002). According to the lexical production scoring protocol, which was proposed by Barcroft (2002), any word could be scored in terms of correctness (the extent to which any letter is written in the right position) and

presence (the extent to which any letter is written but not placed in its right position) of the letters within a word. By dividing the letters correct and present by a total number of letters in a word, a specific decimal point was awarded capturing even partial gains in degrees of word knowledge. For example, as for the target word *whinny*, the answers ‘whinnie’ and ‘whinni’ were given 0.75 points each because more than 3/4 of the word was written; that is, 83.3% (5/6) of the letters was present and placed in the correct position. Likewise, in the case of the word *rustler*, the answer ‘rustlers’ was awarded 0.75 as well since all the letters were correctly written but only the morpheme ‘-s’ indicating plural forms was added. The answer ‘tlers’ was worth 0.5 points in that more than half of the letters (71%) were present but in the wrong position. The more detailed description of the scoring criteria is shown in the Table 3.4 on the next page.

**Table 3.4 Lexical Production Scoring Protocol-Written**

<b>Points</b>	<b>Description</b>
<b>0.00</b>	None of the word is written; this includes: - Nothing is written. - The letters present do not meet any “for 0.25” criteria.
<b>0.25</b>	1/4 of a word is written; this includes: - Any 1 letter is correct. - 25-49.9% of the letters are present.
<b>0.50</b>	1/2 of a word is written; this includes: - 25-49.9% of the letters are correct. - 50-74.9% of the letters are present.
<b>0.75</b>	3/4 of a word is written; this includes: - 50-99.9% of the letters are correct. - 75-100% of the letters are present. - 100% of the letters are correct but other letters are added.
<b>1.00</b>	Entire word is written; this includes: - 100% of the letters are correct.

Similar to the scoring procedure of the passive learning test, double-scoring was conducted by the researcher and another English teacher. The attained value of Cronbach’s alpha for inter-rater reliability was 0.999 for the active test.



## **3.4 Procedure**

This section introduces the detailed information about the procedure of the current study. The pilot study as the foundation for the present study is described in 3.4.1, followed by an explanation of the main study in 3.4.2.

### **3.4.1 Pilot Study**

One month before the main study, in the fall of 2018, a pilot study was conducted to eight 9<sup>th</sup> graders (4 advanced, 4 intermediate learners) of a middle school that was different from the main research was conducted. Two factors were mainly tested throughout the pilot study.

The overriding concern was the task manageability. The participants were asked to read two reading passages created for the main study and to solve the comprehension questions. In the same way, the writing task was completed by the students and scored by the researcher. After the tasks, the researcher had a one-on-one interview with each participant to identify whether the reading material was comprehensible and there was any difficulty performing the given tasks. They were allowed to freely describe the story of the reading passage as much as they could and tell the difficulty of the task roughly from zero (easy) to one hundred (hard). Likewise, the sentences the learners wrote down for the writing task were checked in terms of correctness and task accomplishment.

Also, the time on each task was checked to make sure that the potential participants in the main experiment could accomplish the tasks within the regular class time. By checking the time the last student submitted the tasks, students participating in the main study were prevented from failing to complete the tasks on time. Although the time for writing had been expected to be longer than the reading task, and task load was more burdensome for the sentence-writing task, learners at both proficiencies completed both tasks without much trouble.

Aside from the reading and writing task, a vocabulary pilot test was also administrated as stated in Section 3.2.1.

### 3.4.2 Main Study

The focus of the study was to determine whether different combinations of task-induced involvement load and word occurrences had differing effects on L2 word retention. To achieve this goal, two types of word learning conditions were tested: low involvement load task with more word occurrences (LI\_HF) vs. high involvement load task with fewer word frequencies (HI\_LF). In these within-subjects and between-subjects designs, all the participants met the same 20 target words and distracters. Two sets of words from the same frequency bands included five target words and five distracters, respectively in each set. Participants faced both sets of vocabulary but under one of the two experiment conditions. Each experimental group was randomly assigned to one treatment condition and consisted of an intact class.

The main experiment for the study was conducted over a period of 6 weeks, as illustrated in Table 3.5. Prior to pretest, the subjects were told that they would participate in a university study to examine how people comprehend reading texts and write their own sentences using glosses. About one month before the experiment, the subjects were pre-tested on 20 words. They were instructed to translate the words they had already known and write the spellings if they could but to skip the words they did not have any full or partial knowledge. By pre-testing the participants on their own knowledge of the words that would occur in the reading and writing tasks, it was made sure that the target words were unknown to most of the participants although their unfamiliarity was already checked through a pilot study.

The treatment took place during the regular class time at intervals of one week. On week 1, a warm-up session was held for about 5 minutes in the beginning. As the subjects had been already asked to take part in a study and signed a participation agreement for informed consent, the warm-up session was done very briefly. In the study, the participants knew that they would be tested on their reading and writing at the end of each session. However, they were not informed that the test would consist of questions for words in the text. By following the typical methodological procedures generally employed in the experiment for incidental word learning, it was ascertained that the condition for incidental vocabulary learning was satisfied in the study. If the participants had been informed of the upcoming vocabulary tests, they would have focused on memorizing the target words, leading to the failure of judging how well incidental

vocabulary learning occurred.

After the warm-up stage, two sessions were followed for the treatment. Each session was conducted for 3 weeks. For the first session, target word set I was used. Group 1 (Advanced-1 and Intermediate-1) were assigned three reading tasks with gloss inducing low involvement load, one task per week. Each reading task was comprised of a different reading passage but each passage contained the same five target words. To decrease the chance that participants would realize the upcoming vocabulary test, distracter tasks such as word association tasks were inserted between the reading tasks. The learners were given a blank sheet of paper and wrote down any words they could think of after listening to the word the researcher told them to. Group 2 (Advanced-2 and Intermediate-2) completed the sentence-writing task inducing high involvement load one time at the 3rd week.

On the 3rd week, at the end of the first session, an immediate posttest was provided in order to get the result of L2 vocabulary learning. The participants took two types of test: passive word learning test (see Section 3.3.1) and active word learning test (see Section 3.3.2). The students were told to complete both tests in 10 minutes following the findings of the pilot test that revealed the slowest learner had finished the test within 10 minutes.

The same went for the second session. In this session, the target word set II was used. The learners alternatively performed the task. Group 2 (A-2 and I-2) did three reading tasks with gloss while Group 1 (A-1 and I-1) performed one sentence-writing task. At the conclusion of the second session, that is, on the 6th week, the unannounced posttest was distributed after the treatment in the same

way as on the 3rd week. The students were given up to 10 minutes to complete the tests. Students' worksheets were collected immediately when the time was called. More detailed information about the experiment schedule is shown in the following Table 3.5.

**Table 3.5 Data Collection Timetable**

		Session 1			Session 2		
		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Group1	<i>Pretest</i>	Warm-up		Reading3			Writing1
		Reading1	Reading2	<i>Posttest1</i>			<i>Posttest2</i>
Group2	<i>Pretest</i>	Warm-up		Writing1			Reading3
				<i>Posttest1</i>	Reading1	Reading2	<i>Posttest2</i>

### 3.5 Data Analysis

From the collected data, the vocabulary posttest scores of the 16 participants who failed to submit all the task materials were excluded. There was no student who had learning experiences in English-speaking countries for more than 6 months. The data of the 43 advanced learners, the 17 intermediate students, and the combination of both groups (60 students in total) were analyzed.

To answer the first question, the impact of the different combination of task-induced involvement load and word occurrences on overall L2 word learning,

repeated measures two-way ANOVAs was run. The varying levels of involvement load and word exposure frequency (LI\_HF vs. HI\_LF) were treated as a within-subject variable. The sum of the active word learning test score and the passive word learning test score as well as the posttest scores of each test were a dependent variable.

For the second research question, whether the effect of involvement load of tasks and word frequency varies depending on learner proficiency, repeated measures two-way ANOVAs were conducted. Two variables were the different combination of involvement load of a task and word repetitions (2 levels) as a within-subject variable and learner proficiency (2 levels) as a between-subject variable. The posttest scores of the whole test, the active test, and the passive test were treated as a dependent variable.

All the analyses were performed employing IBM SPSS Statistics version 22. All of the data set satisfied the conditions for using the parametric analysis and the alpha level was set at .05.

In the next chapter, the results of the statistical analyses will be presented.

# **CHAPTER 4.**

## **RESULTS**

This chapter reports the results around the research questions. Section 4.1 discusses the first research question, the effect of different combinations of involvement load induced by a task and word repetitions on L2 word acquisition. Section 4.2 reports the result of the second research question, how learners at different proficiency levels are influenced by varying combinations of involvement load and word exposure frequency. In both sections, the results are analyzed for the three test types (the whole test, the active test, and the passive test).

### **4.1 The Combined Effect of Task-induced Involvement Load and Word Exposure Frequency on L2 Vocabulary Learning**

To answer the first research question, which addressed the effect of level of task involvement and word recurrences on the vocabulary gains, the same students alternately completed both tasks with different word exposures and took unannounced vocabulary posttests at the end of each session. The sum of passive learning test score and active learning test score as well as each test score were analyzed. The within-subject variable was different conditions of word acquisition: task inducing lower involvement load with higher word frequencies (LI\_HF) and

higher involvement task with lower word frequencies (HI\_LF). The dependent variable was vocabulary test scores. For all statistical analyses, the alpha level was set at .05.

Table 4.1 summarizes the descriptive statistics of the vocabulary knowledge scores: means and standard deviations, and the number of participants according to the differing combination of task type and word frequencies. The result showed that students who completed low involvement load task with more word occurrences (LI\_HF) scored higher on the overall tests than those completing high involvement load task with fewer word occurrences (HI\_LF). On an unannounced whole word test with a maximum score of 10, the average retention scores were 6.45 for LI\_HF, 5.53 for HI\_LF. The same went for active learning test and passive word test. In the active test with a maximum score of 5, the mean scores were 2.42 for LI\_HF, 1.96 for HI\_LF. The scores for the passive learning test were better than those of the active test: 4.03 for LI\_HF and 3.57 for HI\_LF.

**Table 4.1**

**Descriptive Statistics of Word Learning Conditions**

Treatment	Whole Test			Active Test		Passive Test	
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
LI_HF	60	6.45	1.925	2.42	1.224	4.03	1.171
HI_LF	60	5.53	2.033	1.96	1.143	3.57	1.170

*Note.* The whole test scores are the sum of active test scores and passive test scores; each of them is 5 and the maximum score of the whole test is 10.



In order to check whether the differences were statistically significant, the data were submitted to repeated measures two-way ANOVAs. As is reflected in Table 4.2, different combinations of level of task involvement and word repetitions were found to have a significant effect on the whole test (sum of active test and passive test) score and the active test score:  $F(1, 58) = 5.743, p = 0.020$  for the former, and  $F(1, 58) = 5.147, p = 0.027$  for the latter. There was not any significant effect on passive vocabulary learning gains, and  $F(1, 58) = 2.424, p = 0.125$ .

**Table 4.2**  
**Effects of Involvement Load and Word Frequency (Within-Subjects)**  
**on the Three Types of Test Scores**

Test types	Combinations of Involvement Load and Word Frequency					
		<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	<i>Partial η<sup>2</sup></i>
Whole Test	LI_HF	6.45	1.925	5.743	.020*	.090
	HI_LF	5.53	2.033			
Active Test	LI_HF	2.42	1.224	5.147	.027*	.082
	HI_LF	1.96	1.143			
Passive Test	LI_HF	4.03	1.171	2.424	.125	.040
	HI_LF	3.57	1.170			

\* $p < .05$

## **4.2 The Combined Effect of Task-induced Involvement Load and Word Exposure Frequency According to Learner Proficiency**

To investigate the second research question, how learners at dissimilar proficiency levels were affected by blends of treatment, two independent variables were set: the combination of involvement load and word frequency (LI\_HF vs. HI\_LF) as a within-subject variable, learner proficiency (advanced vs. intermediate) as a between-subject variable. The posttest scores of the whole test, the active test, and the passive test were treated as a dependent variable in each of the repeated measures ANOVAs.

Table 4.3 reports the descriptive statistics of vocabulary knowledge scores for the three types of measures according to learner proficiency. In all cases, the mean scores were higher for the advanced groups than intermediate participants. The whole word test results with a full score of 10 revealed that the average scores were 6.91 for the advanced group, 5.29 for the intermediate students in the case of the LI\_HF combination; when it comes to the HI\_LF condition, the mean scores were 5.78 for the advanced learners, 4.88 for the intermediate participants. The same pattern was shown in the active word test and the passive learning test. In addition, both levels of students performed better in the LI\_HF condition than in the HI\_LF as discussed in Section 4.1. Put it in detail, learners at the advanced level scored 2.62 in LI\_HF but 2.12 in HI\_LF condition for the active test. The mean scores of students at the intermediate level showed the same results. On the

active word test with a maximum score of 5, the average retention scores were 1.91 for LI\_HF, 1.56 for HI\_LF. Likewise, with a full score of the passive test being 5, the retention score of the proficient learners was 4.29 in the condition of LI\_HF, 3.66 in HI\_LF. The scores of the less proficient students were 3.38 in LI\_HF and 3.32 in HI\_LF.

**Table 4.3**  
**Descriptive Statistics of the Three Test Scores**  
**According to Learner Proficiency**

		Whole Test		Active Test		Passive Test	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
LI_HF	Advanced <sup>a</sup>	6.91	1.693	2.62	1.269	4.29	.914
	Intermediate	5.29	2.041	1.91	.960	3.38	1.495
HI_LF	Advanced	5.78	2.085	2.12	1.188	3.66	1.194
	Intermediate	4.88	1.794	1.56	.933	3.32	1.103

*Note.* The whole test scores are the sum of active test scores and passive test scores; each of them is 5 and the maximum score of the whole test is 10.

<sup>a</sup>n=Advanced 43 students, Intermediate 17 students

To investigate whether the differences between the proficiency groups are significant, two-way ANOVAs were conducted. The statistical analyses of the research questions were based on repeated measures two-way ANOVAs with a 2

(combinations of involvement load and word frequency) X 2 (learner proficiency) design.

As to the interaction, there was no significant interaction effect between two variables in all test types: combinations of involvement load and word repetitions (LI\_HF vs. HI\_LF) and learner proficiency (advanced vs. intermediate) as presented in Table 4.4. For all occasions, all p-values were larger than .05:  $p = 0.270$  for the whole test,  $p = 0.697$  for the active test, and  $p = 0.202$  for the passive test. The null hypothesis could not be rejected and it could be strongly argued that learners at any proficiency levels acquired more words in the condition of LI\_HF than in HI\_LF. That is, the combined influence of two factors, task-induced involvement load and reoccurrences of unknown words, did not vary whether learners were proficient or less proficient. Learners at both levels consistently showed a tendency to perform significantly better in the LI\_HF condition than in HI\_LF.

**Table 4.4****Effects of the Interaction between and Learner Proficiency and  
Involvement Load with Word Frequency**

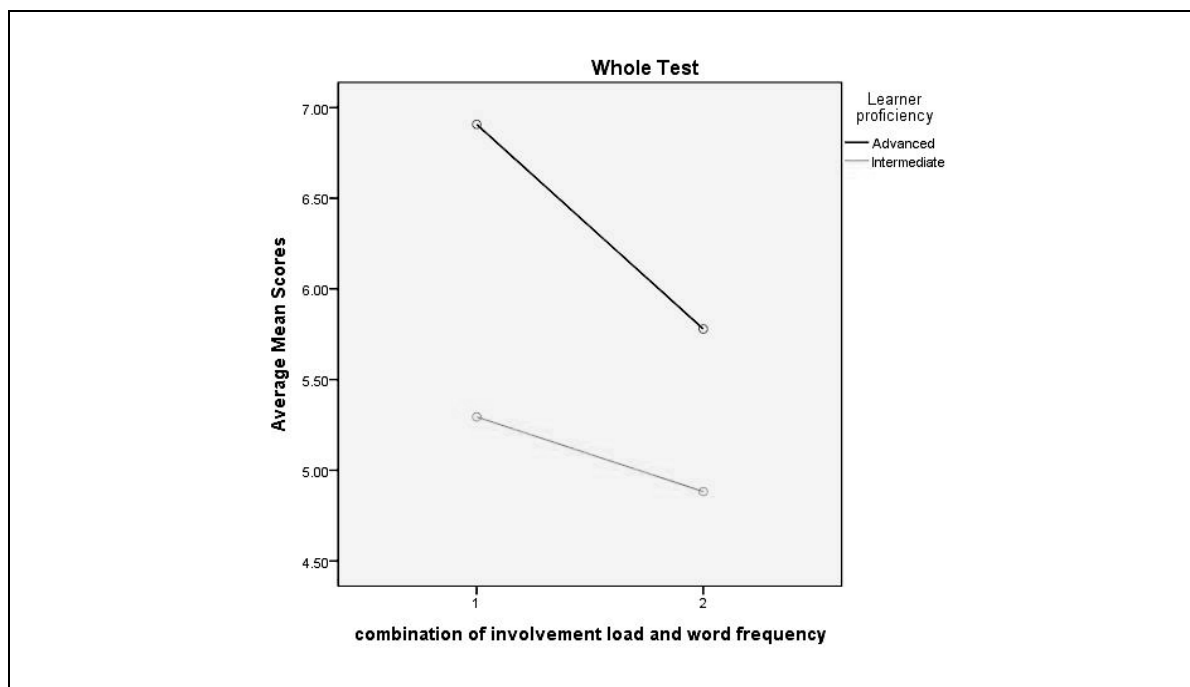
Test types	Involvement Load and Frequency* Learner Proficiency					
	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>Partialη<sup>2</sup></i>
Whole Test	3.124	1	3.124	1.243	.270	.021
Active Test	.132	1	.132	.153	.697	.003
Passive Test	1.973	1	1.973	1.664	.202	.028

\**p*<.05

The graph that the two-way ANOVAs produced clearly summarized the results of the present study. As can be seen in Figure 4.1, which displays the findings of the whole test, the horizontal axis depicts the within-subject variable (1= LI\_HF, 2= HI\_LF) and the vertical axis indicates average mean scores of the posttest. According to the graph, for low involvement task with high frequency (3 reading tasks with gloss) as well as for high involvement task with low frequency (1 sentence-writing task), advanced students performed better than intermediate students. With regards to learner proficiency, more tasks inducing low involvement (3 reading tasks with gloss) were much more effective than fewer tasks inducing high involvement load (1 sentence-writing task) for advanced students. Likewise, low task-induced involvement task with more word repetitions

(3 reading tasks with gloss) promoted greater gains than high involvement task with fewer word occurrences (1 sentence-writing task) for intermediate students. The same trends were confirmed through the graph of the active learning test and that of the passive learning test as presented in Figure 4.2.

**Figure 4.1**  
**Effects of Involvement Load and Word Frequency**  
**According to Learner Proficiency (Whole Test)**

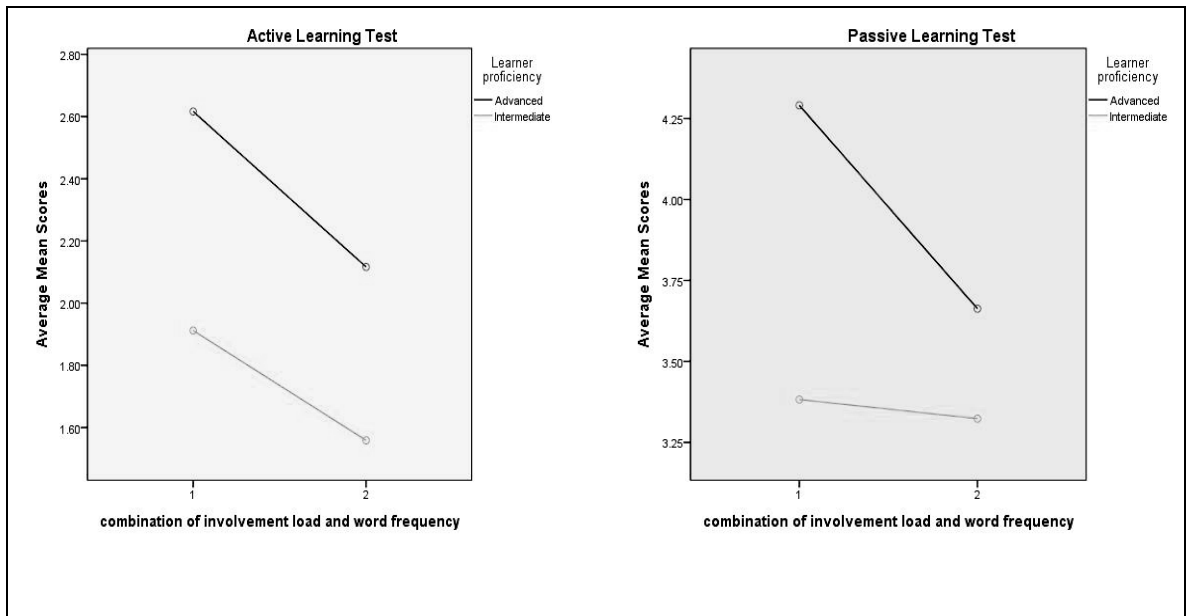


*Note.* 1= LI\_HF, 2= HI\_LF

The whole test scores are the sum of active test scores and passive test scores; each of them is 5 and the maximum score of the whole test is 10.

**Figure 4.2**

**Effects of Involvement Load and Word Frequency  
According to Learner Proficiency  
(Active Learning Test vs. Passive Learning Test)**



Note. 1= LI\_HF, 2= HI\_LF

The maximum score of the active test and that of the passive test is 5, respectively.

The ANOVAs in Table 4.5 displays an overall significant difference between the two proficiency levels. In terms of the whole test, the impact of the between-group variable on the test scores was statistically significant:  $F(1, 58) = 8.084, p = 0.006$ . The results of the active learning test and the passive test yielded the same findings:  $F(1, 58) = 5.323, p = 0.025$  for the former;  $F(1, 58) = 6.750, p = 0.012$  for the latter. From the results, learner proficiency was verified as a crucial factor

affecting L2 word learning gains.

**Table 4.5**  
**Effects of Learner Proficiency (Between-Subjects)**  
**on the L2 Vocabulary Learning**

Test types	Learner Proficiency					
	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>Partialη<sup>2</sup></i>
Whole Test	38.365	1	38.365	8.084	.006*	.122
Active Test	9.701	1	9.701	5.323	.025*	.084
Passive Test	9.482	1	9.482	6.750	.012*	.104

*\*p<.05*

Moreover, there were some differences in vocabulary acquisition rates depending on the test types. These findings will be discussed in depth in the following Discussion Section 5.1.



## **CHAPTER 5.**

### **DISCUSSION**

Section 5.1 discusses L2 vocabulary learning from receptive tasks (three reading tasks with glosses) and a productive task (one sentence-writing task) with a differential frequency of word occurrences. The discussion on the impact of the level of task involvement load and word repetitions on the word gains of the learners at the different proficiency levels is presented in Section 5.2.

#### **5.1 The Combined Effect of Task-induced Involvement Load and Word Exposure Frequency on L2 Vocabulary Learning**

The statistical results of the study show that different combinations of task-induced involvement load and multiple retrievals of the target words have significant impacts on the overall L2 vocabulary retention. As the within learners factor, low involvement load tasks with more word exposures (3 reading tasks with gloss) are proved to be more effective than high involvement tasks with fewer word exposures (1 sentence-writing task). These findings support Folsie's (2006) study that claims the effect of multiple encounters to a word is greater than the impact of exercise types. Yet the present study is distinguished from Folsie's (2006) experiment, where three fill-in-the-blank exercises (index 2 in terms of the involvement load) are used instead of three reading tasks with glosses (index 1) in

the study. His research employed the task inducing more involvement load than that used in the present study and still corroborated the importance of repetitive word exposures. In conclusion, both studies are remarkably similar comparing three low involvement load tasks with one task inducing high involvement load, yielding the same conclusions that the superiority of word exposures to the task types being confirmed.

On the other hand, the results of the current study go against the findings from Webb (2005) and Laufer and Rozovski (2011). The researchers in these studies would say that vocabulary retention is higher for learners who complete writing activities than for those who do other reading tasks because a reading task not only induces less involvement load but it is also less deep than another in terms of deeper processing hypothesis. However, the present study verifies the value of reading activities which seem to be somewhat superficial and passive compared to writing original sentences, as shown in the mean scores of the whole test: 6.45 for three reading tasks, 5.53 for one sentence-writing task. The current study also reveals that the reading task can be a stronger facilitator than the writing task in L2 vocabulary learning if a sufficient number of exposures to the target words are satisfied through extensive reading.

In regards to enough word retrievals that ensure word learning, previous research indicates that learners need to encounter the target word at least six or seven times through input although it remains unclear which number makes sure acquiring full knowledge of vocabulary, as mentioned in Section 2.2. The reading task of the present study is different from Webb (2005) and Folsie (2006) in terms

of exposure frequency of the target words. The current study involves the same number (three) of reading tasks as in the other two studies mentioned above, but it differs from the previous design in that the whole number of word repetitions appearing in the tasks is remarkably contrasted. In Webb's (2005) experiment, three glossed sentences were used; the subjects were instructed to read the L2 target words with L1 meaning, which was followed by three sentences featuring the word. Likewise, Folsie's (2006) study involved three fill-in-the-blank exercises, in which students were told to fill in each blank of a sentence with one of the words from a given word list. In the current study, as is inconsistent with the other studies, three reading materials were distributed to the learners. To sum up, the present study has something in common with Webb's (2005) and Folsie's (2006) studies in that the number of tasks completed is three; yet the word repetitions in the tasks contrast, with nine to twelve times proportionally assigned in three reading materials compared to three times in the entire three sentences (one word in each sentence) in the other two studies. Sufficient repetitions of the lexical item in the reading passages, which is more contextualized than in the sentence-level context, on receptive tasks make the result of the study on L2 vocabulary growth more valid and convincing compared to the research precedents in which word occurrences are from only one time to less than six times. More detailed discussion on the frequency effect and contextualization of the words in a task will be followed in the next Section 5.2.

Receptive tasks, such as learning from reading texts, may be not only effective for vocabulary learning but they are also popular because "they are easier to design,

grade, and complete than productive tasks” (Webb, 2005, p. 34). Teachers and instructors can create basic reading exercises relatively quickly and easily. The instructor selects a suitable text including target words and makes comprehension questions, adding some definitions or explanations of the words in a margin at the bottom of a page. If necessary, some modifications can be made as in the present experiment. Of course, grading is easy and quick. Teacher preparation time is minimal compared to creating writing exercises and giving feedback to students’ original sentences. Learners also benefit from the time-saving, and more importantly, as Folse (2006) suggested, they “will always end up with a correct English example sentence to study” (p. 288).

From the analysis of different test types, the test scores of acquiring target words under dissimilar learning conditions (LI\_HF vs. HI\_LF) lead to somewhat different patterns. The difference between two conditions of treatment is statistically significant in the active test as well as the whole test, in which the score of the active test and that of the passive test are summed up. In the whole test, the mean score of the learners under the LI\_HF condition was 6.45 while the average score of those under the HI\_LF was 5.53, and the difference of these means was significant at the .05 level. Similarly, in the active test, learners showed greater word acquisition under the LI\_HF (2.42) than the HI\_LF condition (1.96). This was not the case when learners took the passive test; there was not any significant difference between the mean scores of vocabulary gains under both conditions.

The reasons why the result of the passive test is incongruent with that of the

other two tests could be attributed to the characteristics of the vocabulary knowledge being measured. When it comes to the active learning test, productive knowledge is assessed; learners are asked to recognize the prompt (L1 meanings) to recall and write correct spellings of the L2 words corresponding to the L1 translation. This kind of active word knowledge is more difficult to acquire than passive knowledge, thus requiring more time and repeated effort for learners to master. In experimental comparisons of receptive and productive word knowledge, Waring (1997) found that learning productive knowledge took more time than receptive one and that average scores on productive tests were lower than those of receptive tests. His second findings are congruent with the results of the present study. The mean scores on the passive test (4.03 for LI\_HF; 3.57 for HI\_LF) fared better than those of the active test (2.42 for LI\_HF; 1.96 for HI\_LF) in the study.

On the contrary, receptive knowledge, which was tested in the passive test, is comparatively easier to access and gain than productive learning. Translating the L2 words into Korean is a very commonly used exercise in L2 classrooms. Learners are often told the teacher's definitions or explanations of newly met words in their mother tongue; they are also asked to recall the meaning of the English words already taught, and they are instructed to write the meaning of the vocabulary in the form of a check-up at the conclusion of each lesson. For these reasons, acquiring receptive knowledge is less susceptible to any learning conditions, that is, whatever LI\_HF or HI\_LF. Learners could attain passive knowledge of word meanings comparatively more easily whether they complete various reading tasks or one sentence construction exercise.

Regarding the productive word knowledge and receptive vocabulary learning discussed above, it is worthy to mention that there was a significant effect of the combined influence of two factors (LI\_HF vs. HI\_LF) on the active learning test. Since the productive word knowledge is deeper in processing, more difficult to acquire, and more affected by learning conditions, it is important to create learning conditions conducive to acquiring productive vocabulary knowledge. Based on the results of the study, it is predicted that it would be more effective to increase retrievals of the target words to promote the active word knowledge than completing a high involvement load task at a single time.

## **5.2 The Combined Effect of Task-induced Involvement Load and Word Exposure Frequency According to Learner Proficiency**

The earlier hypothesis concerning the second research question was that there would be no significant difference in the combined effect of two learning conditions, task-induced involvement load and word recurrences, depending on learner proficiency.

It is interesting that the null hypothesis could not be rejected, concluding that the influence of blends of treatment does not vary whether learners are in the advanced or intermediate group; both learners outperformed under the LI\_HF learning condition (3 reading tasks with glosses) rather than HI\_LF (1 sentence-

writing task) regardless of their proficiency levels. Furthermore, any significant difference was not found in the statistical data regarding the interaction between learner proficiency and combinations of learning conditions (LI\_HF vs. HI\_LF). These consistent results corroborated the relative efficiency of word occurrences rather than task types in the retention of new words. The insignificance of the interaction effect and the same results regardless of learner proficiency may be interpreted in the following four ways.

First and foremost, learning words from context is a cumulative process and requires repetitions for vocabulary growth and enrichment. Most learners usually forget unfamiliar words almost immediately after processing them in a text. Initial meetings with a lexical item in context result in a small and vague knowledge of it and unlikely to lead to mastering its form and meaning as already stated in Section 3.3.1. Therefore, in the current experiment, the writing task with higher task involvement load proved to be less effective as it failed to pick up a substantial amount of words only through one encounter. Learners indeed acquire newly met words through language input such as reading and writing, but this process of learning words occurs “incrementally and in small quantities” (Hulstijn, Hollander, & Greidanus, 1996, p. 328). The more often the target word occurs, the greater knowledge and form of it is gradually enriched and strengthened.

Secondly, reappearing target words successfully draw learners’ attention in the reading tasks. Although the words recur in the writing task (7 times), nearly 1.5 times as often target words (from 9 to 12 times) were proportionally distributed over the three texts in the reading task. Any target word, which might have been

ignored through one meeting in the writing task, was more likely to be perceived as it kept reappearing in the successive reading texts and could be acquired and retained.

Thirdly, the target words presented in a more contextualized condition of a reading text promote L2 vocabulary learning. In the reading task, the participants easily refer to not exclusively the marginal vocabulary glosses but also other adjacent words in context while comprehending the target words as well as the text. During the process, the target words in the richly contextual information are more likely to be acquired and retained than those in the sentence-level context in the writing task. Moreover, the provision of vocabulary knowledge through marginal glosses in turn influences understanding the text, and this enhanced text comprehension positively affects the retention of new words as proposed by Lexical Quality Hypothesis in Perfetti and Hart's (2002) study. According to the hypothesis, great knowledge of words enables language learners to comprehend the text better. This increased understanding of the text allows them to process more information in reading, which in turn enhances the learning of vocabulary knowledge.

Lastly, the frequency effect plays a vital part in the connection between the form and meaning of a target word. Word frequency is not the sole factor determining the likelihood of acquisition, but it is undeniably an essential and critical variable in an incremental process of word learning. In a study by Hulstijn, Hollander, and Greidanus (1996), the attention was focused on the importance of reoccurrences of new words in the text as the researchers stated, "reappearance of



a word will reinforce the form-meaning connection in the reader's mental lexicon" (Hulstijn, Hollander, & Greidanus, 1996, p. 327). In the current study, each target word occurred 7 times in the sentence-writing task and 9-12 times in the reading task with marginal glosses as mentioned in Section 3.2.2. Despite the low involvement load induced by the reading task, more word repetitions may enhance the form-meaning connection and promote the incidence of L2 vocabulary acquisition.

In conclusion, the present study yields consistent results of better retention effects of word reoccurrences over the task-induced involvement load for both advanced and intermediate learners; and it can be useful for teachers and material designers to provide learners with effective vocabulary instructions and materials. In the next section, major findings and educational implications will be presented.

## **CHAPTER 6.**

# **CONCLUSION**

This chapter is composed of two sections. Section 6.1 summarizes the major findings of the current study and presents the implications on English vocabulary education. Section 6.2 reports the limitations of the present study and makes suggestions for future research.

### **6.1 Summary of the Findings and Implications**

The current study examines the effects of different combinations of two variables, involvement load of tasks and word exposure frequency, on middle school English learners' L2 vocabulary learning.

The first research question compares the relative efficiency of vocabulary learning under two conditions: low involvement load tasks with more word exposures (three reading tasks with glossed words) vs. high involvement load task with fewer exposures (one sentence-writing task). From the statistical analysis of the results, low involvement load tasks with more word repetitions are proved to be more effective than high involvement task with fewer word exposures. It indicates that word exposure frequency can be a stronger factor than task-induced involvement load in L2 vocabulary learning and retention. In general, an increase in word occurrence and higher task-induced involvement are reported to contribute to L2 learners' vocabulary growth. However, satisfying both variables seems to be

unrealistic because the class time allotted for vocabulary learning is very limited. In reality, the optimal number of word repetitions for vocabulary knowledge gains is expected to be at least six or seven times. If this condition of enough word exposures is satisfied, receptive tasks such as reading with glosses would be a facilitative way to L2 word learning. Receptive tasks are also very efficient with its ease of designing and scoring.

The study also closely investigates how the combined effect of task-induced involvement load and frequency of exposure varies depending on the language proficiency level of students. The results show that the impact of varying combinations of the involvement load induced by a task and word recurrences does not vary whether the learners are at an advanced level or intermediate level. Both learners performed better under the learning condition of more tasks inducing less involvement load rather than fewer tasks with higher involvement load, confirming the finding discussed above.

Based on these major findings, this study yields the following pedagogical implications on L2 vocabulary learning for teachers and researchers.

- 1) The results of the study present a guide to efficient vocabulary instruction in the EFL classroom context which is always short of time and input. More word activities with low involvement load are indeed conducive to L2 learners' vocabulary gains.

- 2) Regardless of learner proficiency, the intermediate learners as well as the high-level students can benefit from the learning condition of more receptive tasks rather than fewer productive tasks. It would suggest that L2 teachers consider these

findings when planning vocabulary lessons and encouraging the learners to press on with their study of vocabulary learning. For example, learners can be encouraged to review reading passages from a textbook several times instead of writing them once before the exam.

3) This study also shows that relatively minimal and subtle but definite growth of new vocabulary knowledge occurs through multiple exposures during several tasks of reading. It confirms the need for repeated encounters with words. If L2 learners engage in various activities such as extensive reading programs that provide enough chances of meeting words in context, it is expected to result in greater amounts of vocabulary growth and enrichment. It is the instructor's and material designer's task to provide learners with motivating and interesting reading texts to alert curiosity, inviting them to nontedious review opportunities of words.

## **6.2 Limitations and Suggestions for Future Research**

To develop a more balanced picture of the effectiveness of tasks that induce involvement loads and word occurrences for vocabulary growth, some suggestions would be helpful for future research.

Firstly, the results of the study are inevitably limited by procedural factors. The reading materials and vocabulary writing tasks were purposely created for the treatment and neither of them was a part of a normal curriculum. These extra-curricular materials could make some participants pay more attention than usual, which positively impacted the results of the study. On the other hand, others might

feel fatigued with additional tasks or did not need to complete the tasks because they were not related to their grades or scores. To engage learners in a fully valid reading and writing situations, future research needs to integrate texts or tasks of learners' curriculum.

Secondly, the present findings were based on data from 60 learners. Twenty other learners had participated in the experiment at an earlier stage, but for various reasons such as failing to submit all the tasks or screening, their data were finally excluded for analysis. This implies that so as to collect more reliable data, it is crucial to ascertain that there is a larger cohort of participants. Future research needs to further involve as many subjects as possible to generalize the results of the experiment.

Lastly, only an immediate posttest was employed in the experiment. From previous studies, it is evident that a delayed vocabulary posttest is generally followed after the immediate posttest to identify the longer effect of word learning and retention. This study, however, did not involve the delayed posttest because of realistic limitation. As the experiment was conducted after the final exam in the last semester of the 9th graders just before the winter vacation, there was not enough time to administer the delayed posttest. More studies with a delayed posttest for a longer period would be welcomed.

Despite these aforementioned limitations, the present study provides empirical evidence supporting the relative benefit of higher frequency of word exposure over using high-involvement tasks, when realistic constraints require an L2 teacher to make a choice on effective vocabulary instruction.

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## APPENDIX 1-1.

### (1R-1) Reading with the Gloss and Answering the Comprehension Questions

[1~2] 다음은 시간 여행을 통해 타이타닉호(the Titanic)를 타고 있는 Jack과 Annie, 그리고 강아지 Teddy에 대한 글이다. 글을 읽고, 물음에 답하십시오.

Jack and Annie **slithered** through a door off the boat deck. Teddy was following. “Wow,” **gasped** Annie. They were at the top of the empty grand stairway. It was beautiful. It was made of dark, **glossy** wood. A huge dome with lights hung above it.

At the top of the stairs was a fancy clock. The hands of the clock were at 12:20. “Oh, man, it’s twenty minutes after midnight!” said Jack. “The ship’s going down in two hours!” They hurried down the carpeted steps and into the first-class hallway. Teddy followed along.

Jack looked at the map in the book. “These are the rooms,” he said. “This hall will take us to the third-class open deck.” “Hey, look,” said Annie. “The floor is **slanting** down.” Jack **gasped** with surprise. She was right. “That means the front of the ship is already sinking,” he said. Just then, a man in a white uniform came down the hall. He knocked on the doors. “Put on your life belts at once and come up to the boat deck!” he called.

Men and women **stumbled** out of their rooms. They wore elegant robes made of shiny cloth and velvet. “What’s going on?” a woman asked. “There’s been a little accident,” the man in the uniform said cheerfully.

“Oh, how silly,” said the woman. “It’s not silly!” said Annie. “Do what he says!” “*Grrrr! Arf!*” Teddy **snarled**. “Shhh, Teddy!” said Jack. He picked up the little dog. Then he and Annie hurried down the hall. They crossed the third-class open deck, where more people were standing.

These people were not dressed in fancy clothes. They mostly wore plain, dark coats. They didn’t seem worried, either. They were all joking and laughing.

slither (동사) (비탈 등을 힘 안 들이고) 스프르 미끄러지듯 나아가다

gasp (동사) 숨이 턱 막히다, 헉 하고 숨을 쉬다

glossy (형용사) 윤이 나는

slant (동사) 기울어지다, 비스듬해지다

stumble (동사) 발을 헛디디다, 비틀거리다

snarl (동사) (이빨을 드러내며) 으르렁거리다

1. 위 글의 제목으로 가장 적절한 것은?

- ① Social Class and Clothing
- ② The Unsinkable Ship, The Titanic
- ③ How to be a First-class passenger
- ④ Jack and Annie's Adventure in Dreams
- ⑤ People Who are not Aware of the Sinking Ship

2. 다음 중 위 글의 내용과 일치하지 **않는** 것은?

- ① 어둡고 광택 나는 나무로 만든 커다란 계단 위로 조명이 걸린 커다란 돛 지붕이 있었다.
- ② 배는 두 시간 안에 가라앉을 것이다.
- ③ 하얀 제복을 입은 남자는 승객들에게 구명조끼를 입으라고 했다.
- ④ 잘 차려 입은 일등석 승객들은 재빨리 갑판으로 나갔다.
- ⑤ 소박한 복장의 삼등석 승객들은 배의 상황에 대해 걱정하지 않았다.

## APPENDIX 1-2.

### *(1R-2) Reading with the Gloss and Answering the Comprehension Questions*

[1] 다음은 시간 여행을 통해 타이타닉호(the Titanic)를 타고 있는 Jack과 Annie, 그리고 강아지 Teddy에 대한 글이다. 글을 읽고, 물음에 답하시오.

Jack and Annie **slithered** through the crowd. They went into a big smoky room. This place was not **slanting** yet. Four men were playing cards. A woman played the piano. A young couple danced to the music. “Put on your life belts and go up to the boat deck!” Annie shouted. The people looked at Annie in surprise. The card players smiled at her. She opened her mouth to yell again, but Jack pulled her out the door. “Come on,” he said. “We have to get down to the third-class cabins before it’s too late.”

They hurried down another hall. Then they climbed down another stairway. Jack carried Teddy the whole way. At the bottom of the stairs, they rounded a corner, and they both **gasp**. The floor was really **slanting** down here, and water sloshed at the end of a hallway.

“The Titanic is sinking,” said Jack. “But no one understands!” said Annie. “I know,” said Jack. It made him feel terribly sad. “Arf! Arf!” Teddy barked. Jack buried his face in the little dog’s fur. “Come on!” said Annie. She began banging on the cabin doors. The doors swung open. The cabins were all empty. “The people from this hallway must be the ones up near the lounge,” said Jack. “We should go down to a lower deck.”

He started to walk back to the stairs. But Teddy began **snarling** furiously. “What’s wrong with him?” said Jack. “I don’t know,” said Annie. Suddenly, the dog leaped out of Jack’s arms. He was running straight toward the water! “Watch out!” cried Jack. He and Annie ran after Teddy. The dog began **snarling** at a closed door. The door opened. A very small boy peeked out.

slither (동사) (비탈 등을 힘 안 들이고) 스프르 미끄러지듯 나아가다

slant (동사) 기울어지다, 비스듬해지다

gasp (동사) 숨이 턱 막히다, 헉 하고 숨을 쉬다

snarl (동사) (이빨을 드러내며) 으르렁거리다

1. 다음 중 위 글의 내용과 일치하지 **않는** 것은?

- ① 흡연실에서 네 명의 남자가 카드게임을 하고 있었다.
- ② 춤을 추던 커플이 **Annie**의 말에 황급히 구명조끼를 입었다.
- ③ 바닥은 기울어지고 복도 끝에는 물이 철벽거렸다.
- ④ 배가 가라앉고 있는 상황을 사람들은 잘 모르고 있었다.
- ⑤ **Teddy**가 으르렁거리며 뛰어간 곳에서, 한 소년이 문을 열고 내다봤다.



[2~3] 다음은 시간 여행을 통해 타이타닉호(the Titanic)를 타고 있는 Jack과 Annie, 강아지 Teddy에 대한 글이다. 그들은 삼등석 손님인 Lucy와 그녀의 남동생 William의 탈출을 돕고, 다시 시간 여행을 위해 나무집(tree house)으로 돌아가려고 한다. 글을 읽고, 물음에 답하시오.

“Annie!” cried Jack. “Let me out!” he heard Annie shout. But the lifeboat kept going down.

“Wait for me!” came a loud voice. “Wait for me!” A woman in a fur coat appeared at the **balustrade**. ㉠She nearly threw herself over the side of the ship. “Stop!” the uniformed man called. “Bring the boat back up for Lady Blackwell!” Slowly, the lifeboat was brought back up. Jack pushed his way forward. The lifeboat came even with the ship. Jack reached out to Annie. ㉡She grabbed his hands. He pulled her back onto the sinking ship.

“Room for one more!” Annie shouted to Lady Blackwell. Then ㉢she and Jack took off before anyone could catch them. They ran up the **slanting** deck. Annie stopped and peered over the **balustrade**. Jack looked, too. They saw Lucy and William’s little lifeboat creaking down toward the Atlantic Ocean. It reached the glassy black water. Then it floated off into the darkness. ㉣Annie waved. “Bye, William! Bye, Lucy!” she shouted. “Thank you for your gift!”

㉤She held up the watch that hung from her neck. Then she and Jack looked at it. The time was 2:05. “Only fifteen minutes left!” said Annie. “We have to get back to the tree house now!” said Jack. “Let’s climb the stairs to the **smokestacks**!”

Suddenly, the front of the ship dipped down into the sea. Deck chairs started to **slither** past Jack and Annie. The band played a slow, calm song. It sounded like a church hymn. But the crowd started to panic. People pushed and shouted, trying to get to a safer part of the ship.

“It’s every man for himself!” the captain shouted to all of his crew. The men all stopped what they were doing and ran up the deck. Jack and Annie ran, too. They **dodged** sliding tables and chairs. They reached the stairs that led to the **smokestacks**. They grabbed the **balustrade** and pulled themselves up the steps. The ship **slanted** further. “Get to those **smokestacks**!” cried Jack. They **slithered** and crawled down the deck. But when they got to the **smokestacks**, Jack and Annie looked around wildly. The magic tree house was gone!

balustrade (명사) 난간

dodge(동사) 몸을 재빨리 움직이다, 피하다

slant (동사) 기울어지다, 비스듬해지다

smokestack (명사) 높은 굴뚝

slither (동사) (비탈 등을 힘 안 들이고) 스프르 미끄러지듯 나아가다

2. 다음 중 위 글의 내용과 일치하지 않는 것은?

- ① 내려가던 구명보트가 귀부인 **Lady Blackwell**을 태우러 다시 올라왔다.
- ② **Lucy**와 **William**은 구명보트를 타고 바다에 있다.
- ③ 밴드는 겁먹은 승객들을 안정시키기 위해 흥겨운 노래를 연주했다.
- ④ 선장의 말에 선원들은 하고 있던 구조를 멈추었다.
- ⑤ **Jack**과 **Annie**는 굴뚝 위로 올라가려고 애썼다.

3. 다음 밑줄 친 ㉠~㉥중 가리키는 대상이 다른 것은?

- ① ㉠
- ② ㉡
- ③ ㉢
- ④ ㉣
- ⑤ ㉥

## APPENDIX 1-3.

### (1R-3) Reading with the Gloss and Answering the Comprehension Questions

[1~2] 다음은 시간 여행을 통해 타이타닉호(the Titanic)를 타고 있는 Jack과 Annie, 그리고 강아지 Teddy에 대한 글이다. 글을 읽고, 물음에 답하시오.

“Where is it?” shouted Annie. The front of the Titanic sank deeper into the sea. The ship **slanted** more than before. Jack and Annie **slithered** forward. They grabbed the **balustrade** and held on for their lives. “Maybe the tree house fell into the ocean!” shouted Jack.

A great roar started coming from the ship. Jack **gasp**ed. He imagined everything crashing forward- all the furniture, dishes, bicycles, the grand clock on the staircase. He looked down. A giant wave of water rolled over a lower deck. Jack imagined water flooding the third-class corridor, the card room, and the grand staircase. He closed his eyes, waiting to be washed away.

“Grrrr! Arf!” The barking came from a distance. “Teddy!” cried Annie. Jack had forgotten all about the little dog. Holding on to the **balustrade**, he used one hand to pull off his bag. Teddy wasn’t there! There was more **frantic snarling**. “Where’s Teddy?” cried Jack. “He’s calling us!” shouted Annie. “We can’t look for him!” shouted Jack. “We’ll fall off the ship!” Teddy **snarled** and **snarled**. “He’s close by!” said Annie. She held on to the **balustrade** and moved slowly down the steep deck. “Annie!” cried Jack. Suddenly, the lights on the Titanic went out. The world was dark. Jack couldn’t see Annie at all. “Annie!” he shouted. He tried to move down the deck, too. But the ship slipped again. Jack **slithered** and fell. He rolled until he crashed into a **smokestack**. “Jack!” cried Annie. “Here! Here!” Teddy kept **snarling**.

The back of the Titanic was rising out of the ocean. The front of the ship was going down. Jack tried to go around the **smokestack** without falling. In the dark, he could barely see the tree house. It was stuck between a **smokestack** and the **balustrade**. It was lying on its side.

Annie and Teddy were looking out the window. “Teddy’s barking led me here!” cried Annie. “Hurry, Jack!” Jack crawled around the **smokestack**. He held out his hand. Annie grabbed it. She pulled him into the tree house. Teddy licked his face. “I wish we could go home!” shouted Annie, pointing at the Pennsylvania book. Jack heard a loud CRA-A-A-ACK! The wind started to blow. The tree house started to spin. It spun faster and faster. Then everything was still. Absolutely still.

slant (동사) 기울어지다, 비스듬해지다

snarl (동사) (이빨을 드러내며) 으르렁거리다

slither (동사) (비탈 등을 힘 안 들이고) 스프르르 미끄러지듯 나아가다

balustrade (명사) 난간

smokestack (명사) 높은 굴뚝

gasp (동사) 숨이 턱 막히다, 헉 하고 숨을 쉬다

frantic (형용사) 제 정신이 아닌

1. 다음 중 위 글의 내용과 일치하지 **않는** 것은?

- ① Jack과 Annie는 가라앉는 배 위에서 난간을 잡고 있었다.
- ② Teddy는 Jack의 가방 안에 있었다.
- ③ Titanic의 불이 나가고 깜깜해졌다.
- ④ 나무집은 배의 난간과 높은 굴뚝 사이에 끼어있었다.
- ⑤ Jack과 Annie는 Teddy의 으르렁거리는 소리 덕분에 무사히 나무집에 도착했다.

2. 위 글에 드러난 Annie와 Jack의 심경으로 가장 적절한 것은?

- ① angry
- ② ashamed
- ③ lonely
- ④ proud
- ⑤ scared

## APPENDIX 2.

### (1W) Writing Original Sentences

ID \_\_\_\_\_

\* 아래의 단어를 사용하여 다음과 같은 2가지 활동을 하고자 합니다.

(a) 주어진 의미에 맞게, 단어의 순서를 바르게 배열하여 문장을 만들어 보세요.

(b) 자신만의 문장을 만들어 보세요. (문법은 틀려도 되니, 의미를 알 수 있으면 됩니다.)

**dodge** (동사): 몸을 재빨리 움직이다, 피하다

예) They dodged sliding tables and chairs.

(a) ◦ Shy film stars / cameras / dodge 수줍은 영화배우는 카메라를 피한다.

→ Shy film stars dodge cameras.

◦ Don't / the issue / dodge 그 문제를 피하지 말아요!

→ Don't dodge the issue!

(b) Politicians dodge hard questions from reporters.

1) **slant** (동사): 기울어지다, 비스듬해지다

예) The floor is slanting down.

(a) ◦ the picture / to the left / slants 저 그림은 왼쪽으로 비스듬하다.

→

◦ slant upwards / her eyes / slightly 그녀는 눈꼬리가 약간 올라갔다.

→

(b) \_\_\_\_\_

2) **gasp** (동사): 숨이 턱 막히다, 헉 하고 숨을 쉬다

예) Jack gasped with surprise.

(a) ◦ gasped / at the wonderful view / she 그녀는 멋진 광경에 숨이 턱 막혔다.

→

◦ she / after the marathon / for air / gasped 마라톤을 마친 후 그녀는 숨을 헐떡거렸다.

→

(b) \_\_\_\_\_

3) **balustrade** (명사): 난간

예) They grabbed the balustrade.

(a) ◦ he / the balustrade / leaned over 그는 난간 위로 몸을 기댔다.

→

◦ the balustrade / us / from this room / separates 난간이 우리를 이 방으로부터 떼어놓는다.

→

(b) \_\_\_\_\_

4) **smokestack** (명사): 높은 굴뚝

예) They reached the stairs that led to the smokestacks.

(a) ◦ those / get to / smokestacks 저 굴뚝 쪽으로 가보자!

→

◦ the stairs / let's / to the smokestacks / climb 굴뚝으로 가는 계단을 올라가보자.

→

(b) \_\_\_\_\_

5) **snarl** (동사): (이빨을 드러내며) 으르렁거리다

예) “Grrrr!” “Arf!” The dog snarled.

(a) ◦ began / snarling / at the thief / the dog 개가 도둑에게 으르렁거리기 시작했다.

→

◦ the stranger / my dog / snarled at 내 개는 낯선 사람에게는 으르렁댔다.

→

(b) \_\_\_\_\_

6) **slither** (동사): (비탈 등을 힘 안 들이고) 스프르르 미끄러지듯 나아가다

예) Jack and Annie slithered through the crowd. 잭과 애니는 군중 사이로 나아갔다.

(a) ◦ the snake / into the water / slithered 그 뱀은 물속으로 스프르르 기어 들어갔다.

→

◦ slithers / over a stone / a lizard 도마뱀이 돌 위로 스프르르 넘어간다.

→

(b) \_\_\_\_\_

7) **frantic** (형용사): (두려움 · 걱정으로) 제정신이 아닌

예) There was more frantic snarling.

(a) ◦ I'm / with hunger / frantic / almost 나는 허기가 저서 눈이 뒤집힐 지경이다.

→

◦ almost / He was / during the interview / frantic 그는 면접 중 거의 제정신이 아니었다.

→

(b) \_\_\_\_\_

8) **stumble** (동사): 발을 헛디디다, 비틀거리다

예) Men and women stumbled out of their rooms.

(a) ◦ fell / the child / and / stumbled 그 아이가 발을 헛디디 넘어졌다.

→

◦ in the dark / looking for a candle / we were stumbling around

우리는 양초를 찾으라고 어둠 속에서 이리저리 비틀거렸다.

→

(b) \_\_\_\_\_



9) **glossy** (형용사): 윤이 나는

예) The stair was made of dark, glossy wood.

(a) ° Sue's eyes / glossy and black / were Sue의 두 눈은 광택이 나는 검은색이다.

→

° has / she / glossy hair 그녀의 머리에는 윤기가 흐른다.

→

(b) \_\_\_\_\_

## APPENDIX 3-1.

### (2R-1) Reading with the Gloss and Answering the Comprehension Questions

[1] 다음은 서부 시대의 유명 도시(Ghost Town)를 여행하는 Jack과 Annie에 대한 글이다. 글을 읽고, 물음에 답하시오.

Jack and Annie went out of the hotel. When they got outside, they heard another sound: horse **hooves thumping** against the hard ground. A cloud of dust seemed to be moving toward the town. As it got closer, Jack saw three riders. They were coming with a small band of horses.

“Hide!” Jack said. “Where?” said Annie. Jack looked around wildly. He saw two **casks** outside the hotel. “There!” he said. Jack and Annie hurried to the empty **casks**. Jack climbed inside one and tried to hide. His hat wouldn’t fit! He jumped out of the **cask** and threw his hat into the hotel. “Mine, too!” said Annie. Jack grabbed hers and threw it. Then he **scrambled** back into the **cask**. Just in time.

Jack heard the horses thunder into town. He looked through a crack in the **cask** and saw a shadow of cowboys and horses go by. “Whoa! Whoa! Whoa!” men shouted. Jack heard the horses come to a **halt**. They **thumped** and **snorted**. All he could see were shadows through the crack. Dust covered Jack. He had to sneeze. He pressed his nose. “The stream must have dried up!” a cowboy yelled. “This is a ghost town!” “Yes, it gives me shivers,” said another. “Let’s camp over the hill.” Jack really had to sneeze now. He pressed his nose tighter. But he couldn’t stop the sneeze. He let out a choked “Ah-choo!”

hooves (명사) hoof의 복수. 발굽	snort (동사) (말 등이) 코를 킁킁거리다
thump (동사) 쿵쿵거리다	halt (명사) 멈춤, 중단
cask (명사) (특히 술을 담아 두는 나무로 된) 통	
scramble (동사) (힘겹게 손으로 몸을 지탱하며) 재빨리 움직이다	

1. 다음 중 위 글의 내용과 일치하지 않는 것은?

- ① Jack과 Annie는 호텔에서 나왔을 때, 땅을 쿵쿵 울리는 말발굽 소리를 들었다.
- ② Jack과 Annie는 빈 통에 숨으려고 했으나, 모자가 걸리적거렸다.
- ③ 마을의 날씨는 천둥과 벼락이 쳐서 어두웠다.
- ④ 남자들이 소리치자, 말들은 킁킁거리는 소리를 내며 멈추었다.
- ⑤ Jack은 먼지로 인해 재채기를 했다.

[2~3] 글을 읽고, 물음에 답하십시오.

“What was that?” someone said. Just then a loud **whinny** split the air. Jack saw a beautiful horse. She had no rider, but just a rope around her neck. She was as red as the sunset. She had a wild black mane and a white star above her eyes. “We can’t keep fighting this one, boss!” a cowboy yelled. “Yes. She wants her **colt**,” another said. “We shouldn’t have left him behind.” “He was too slow,” a growly voice said. “We’ll sell her when we cross the border.”

That’s terrible! Thought Jack. ㉠**He knew Annie must be upset, too.** He just hoped that she wouldn’t jump out of her **cask**. But the cowboys pulled the red horse away. She **snorted**. The ground rang from the **thump** of **hooves** as the horses **thumped** off. Jack and Annie stood up. They watched the riders disappear into the dust. The **thump** faded away. All was quiet again, except for the lazy buzzing of flies.

“They were mean to that horse,” Annie said in a low, angry voice. “I know. But there was nothing we could do,” said Jack. His boots were killing him. He climbed out of his **cask**. “Man, I have to get these off,” he said. Jack sat down on the porch of the hotel. He grabbed the foot of one boot and pulled. “Jack,” said Annie. “I think there is something we can do.” “What?” Jack looked up. A small horse was running down the road. He was as red as the wild mother horse. He had the same black mane and white star above his eyes. A rope was around his neck. He looked very lost. He **snorted** and tossed his head.

whinny (명사) 울음소리

colt (명사) 수컷 망아지

cask (명사) (특히 술을 담아 두는 나무로 된) 통

snort (동사) (말 등이) 코를 킁킁거리다

thump (동사) 쿵쿵거리다 (명사) 쿵 하는 소리

hooves (명사) hoof의 복수. 발굽

2. 다음 중 위 글의 내용과 일치하지 **않는** 것은?

- ① 아름다운 말은 석양처럼 붉은색으로, 새까만 갈기와 눈 위에 하얀 별 모양을 가지고 있었다.
- ② 카우보이들은 수컷 망아지가 너무 느려 뒤에 따라오도록 내버려두었다.
- ③ 카우보이들은 국경을 건너면 어미 말을 팔 계획이다.
- ④ Annie는 Jack과 Annie가 말을 위해 할 수 있는 일은 없다고 생각한다.
- ⑤ 망아지는 길을 잃은 듯 보였다.

3. 위 글의 밑줄 친 ㉠에서 알 수 있는 것으로 가장 적절한 것은?

- ① Jack과 Annie는 말을 돕는 문제로 다투었다.
- ② Annie는 동물을 사랑하는 마음이 강하다.
- ③ Jack은 카우보이들이 아름다운 어미 말을 뒤쳐지게 내버려둬서 화가 났다.
- ④ Jack과 Annie는 카우보이들과 싸울 예정이다.
- ⑤ Annie는 말이 히힝거리는 소리에 신경이 거슬렸다.

## APPENDIX 3-2.

### (2R-2) Reading with the Gloss and Answering the Comprehension Questions

[1~2] 다음은 서부시대의 유명 도시(Ghost Town)를 여행하는 Jack과 Annie에 대한 글이다. 글을 읽고, 물음에 답하시오.

“It’s the **colt!**” said Annie. “He’s looking for his mother!” She ran toward the wild-eyed little horse. “Wait!” called Jack. “Oh, brother.” He pulled the book out of his pack. He found a chapter titled “Horses of the Wild West.” He started reading.

*At the end of the 1800s, over a million wild horses, called mustangs, lived in the West. These tough, fast horses were descendants of runaway Spanish horses. Mustang **rustlers** captured them and sold them to farm owners. Training a wild mustang took great skill.*

Jack turned the page. There was a picture of a herd of horses. Two of them even looked like the beautiful mare and her **colt**. “Hey, Annie,” Jack called. “You should see this picture.” Annie didn’t answer. Jack looked up. Annie was trying to get close to the young mustang, but he kept running away.

“Watch it! He is wild!” said Jack. Annie was speaking softly to the **colt**. She slowly reached out and grabbed the end of his rope. He **snorted**. Still talking to him, she led him to a broad wooden post. “Stop! Don’t do anything!” said Jack. He flipped the pages of his book. He found a section called “How to Treat a Horse.”

*The basic rules on how to treat a horse are simple: a soft hand, a firm voice, a sunny attitude, praise, and reward.*

“I’ve got the rules!” shouted Jack. “Don’t do anything before I write them down!” Jack pulled out his notebook and pencil. He wrote: *Horse Rules. 1. Soft hand 2. Firm voice 3. Sunny attitude 4. Praise 5. Reward.* “Okay, listen!” Jack looked up. But Annie was already sitting on the **colt**’s back! Jack froze. He held his breath. The mustang **whinnied** and pawed the ground. He **snorted** and tossed his head. Annie kept patting his neck and talking softly. Finally the young horse grew still.

Annie smiled at Jack. “I named him Sunset,” she said. Jack let out his breath. “Let’s go,” said Annie. “We have to take him to his mom.” “Are you nuts?” said Jack. “It’ll be dark soon. And the **rustlers**, those guys were real bad guys, I could tell.” “We don’t have any choice,” said Annie. “Oh, brother.” Jack knew she wouldn’t change her mind. “Let’s see what the book says.” He read more about mustangs:

*Wild mustangs live together in families. The bond between a mare and her young **colt** is very strong. If the **colt whinnies**, the sound will always bring her to him.*

colt(명사) 수컷 망아지

snort(동사) (말 등이) 코를 킁킁거리다

rustler(명사) 가축 도둑

whinny(동사) 조용히 울다

1. 다음 중 위 글의 내용과 일치하지 **않는** 것은?

- ① 가축 도둑들은 **mustang**이라고 불리는 야생마를 잡아서 농장 주인에게 팔았다.
- ② **Annie**는 겁을 먹고 신중한테 비해, **Jack**은 적극적으로 수컷 망아지에게 다가갔다.
- ③ 말을 다룰 때에는 부드러운 손길, 단호한 목소리, 밝은 태도, 칭찬, 보상이 중요하다.
- ④ **Annie**는 수컷 망아지를 어미 말에게 데려다 주고 싶어한다.
- ⑤ 어미 말과 수컷 망아지의 관계는 끈끈해서, 망아지가 울면 어미가 항상 나타난다.

2. 다음 글에 이어질 내용으로 가장 적절한 것은?

- ① **Jack**은 말을 다루는 법에 대한 책을 쓰게 된다.
- ② 어미 말은 망아지를 내버려두고 혼자 도망을 친다.
- ③ 어미 말과 망아지는 농장 주인의 품에 돌아가게 된다.
- ④ **Jack**과 **Annie**가 가축 도둑들과 추격전을 벌이게 된다.
- ⑤ **Annie**는 무리하게 망아지에게 다가가서 뒷발에 채이게 된다.

## APPENDIX 3-3.

### (2R-3) Reading with the Gloss and Answering the Comprehension Questions

[1~2] 다음은 서부시대의 유령 도시(Ghost Town)를 여행하는 Jack과 Annie에 대한 글이다. 그들은 Slim이라는 이름의 카우보이와 그의 말 Dusty와 함께 가축 도둑 무리를 습격하여 망아지 Sunset의 어미 말을 구하려 한다. 글을 읽고, 물음에 답하시오.

The sky was dark by the time they got to the hill. The wind was cool, almost cold. “Whoa,” said Slim. Dusty slowed to a **halt**. “The **rustlers** are camped down there,” Slim said in a low voice. “In that patch of trees.”

Jack saw a campfire at the bottom of the slope. He saw the horses gather in a dark bush. One let out a loud **whinny**. “Hear that?” said Slim. “<sup>a</sup>The mare. <sup>b</sup>She senses Sunset is nearby.” The mare **whinnied** again. “Sounds like <sup>c</sup>she is tied to a tree,” said Slim. “I think the rest of the herds are loose.” “What’s our plan?” whispered Jack. “Annie, you stay here and guard Sunset,” said Slim. “Right,” said Annie. “Jack, you and I ride down near their camp,” said Slim. “You keep Dusty quiet while I cut the mare loose.”

*How do you keep a horse quiet?* wondered Jack. “Once the mare’s loose, <sup>d</sup>she’ll break for Sunset,” said Slim. “Then you and Sunset take off, Annie.” “Got it,” said Annie. “Then we’ll split the wind,” said Slim. *What’s that mean?* wondered Jack. “Until we get to Blue Canyon,” said Slim. *Where is that?* wondered Jack. “All set? Any questions?” asked Slim. “Nope,” said Annie cheerfully. *Yes, about a million,* thought Jack. “Okay, guys,” said Slim. “See you soon, Annie. Come on, Jack.” “Have fun,” said Annie. *Fun?* thought Jack. *Is <sup>e</sup>she nuts? Our lives are in danger.*

Slim held his **reins**. Dusty **snorted** and started running down the hill. Their way was lit by a nearly full moon and a million stars. *Maybe now I can ask Slim some questions,* thought Jack.

But just then voices came from the **rustlers’** camp. They were mean voices, followed by mean laughter. A chill went through Jack. Dusty came to a **halt**. “This is far enough,” whispered Slim. He slipped off of Dusty. “Keep him here,” Slim whispered to Jack, “and keep him quiet.”

halt (명사) 멈춤, 중단

rustler (명사) 가축 도둑

whinny (동사) 조용히 울다 (명사) 울음소리

rein (명사) 고삐

snort (동사) (말 등이) 코를 킁킁거리다

1. 다음 중 위 글의 내용과 일치하지 않는 것은?

- ① 어미 말은 자신의 새끼인 **Sunset**이 가까이에 있다는 것을 알아채고 울어댔다.
- ② **Annie**는 제 자리에서 망아지 **Sunset**을 지킬 계획이다.
- ③ **Slim**이 암말이 묶여있는 끈을 느슨하게 풀는 동안, **Jack**은 **Dusty**를 조용하게 시킬 것이다.
- ④ **Slim**의 계획에 대해, **Jack**과 **Annie**는 서로 다른 입장을 보였다.
- ⑤ **Jack**은 **Slim**의 말이 이해가 되지 않아, 그에게 많은 질문을 했다.

2. 다음 밑줄 친 ㉠~㉥중 가리키는 대상이 다른 것은?

- ① ㉠
- ② ㉡
- ③ ㉢
- ④ ㉣
- ⑤ ㉥



[3~4] 글을 읽고, 물음에 답하시오.

“Wait!” whispered Jack. He needed more information. But Slim was gone. Jack held the **reins** and held his breath. He hoped Dusty wouldn’t do anything. For a moment Dusty was still. But then he **snorted** and began walking. *Oh, no!* thought Jack. He tried to think of the rules on how to treat a horse. He remembered: *a soft hand, a firm voice.* He patted Dusty softly. “Whoa!” he said firmly. To his surprise, Dusty froze and was quiet. Jack remembered another rule: a sunny attitude. He patted Dusty again. “Don’t worry,” he whispered. “Everything is going to be fine.”

Just then a loud **whinny** came from the herd of mustangs. They began moving up the moonlit slope. “Hey! The horses!” a **rustler** shouted. A gun went off. Jack ducked. “Come on, Jack!” came Slim’s voice. Jack looked up. Slim was riding the mare!

Jack was shocked. He had thought that Slim was coming back to ride Dusty. Instead, Slim rode right past him! As he got close to Annie, she took off on Sunset. The mare **thumped** after Sunset. And the band of mustangs **thumped** after the mare. *Bang! Bang!*

Jack held the **reins**. “Go, Dusty!” he said. Dusty **thumped** after the mustangs. Jack nearly fell off. He held the **reins**. *Bang! Bang!* The **rustlers** were on their horses now. They were getting closer. “Hurry!” Jack cried. Dusty cleared the hill in an awkward leap. Jack started to slip out of the saddle. He let go of the **reins** and tried to hold on to the saddle horn, but his weight pulled him down. He closed his eyes as he fell to the ground. *Bang! Bang!*

*Oh, man,* thought Jack, *this is the end.* He opened his eyes. Dusty was looking at him. Jack **scrambled** up and tried to climb back into the saddle. It was hard without Slim’s help.

As Jack struggled, he heard shouts from the **rustlers**. Their horses give high-pitched neighs. Jack looked back. A shimmering white figure was moving across the top of the hill! The **rustlers’** horses were panicking and backing away.

Jack didn’t have time to think about what he was seeing. He knew it might be his only chance to escape. Using all his strength, he pulled himself into the saddle. “Go, Dusty, go!” he shouted. Dusty took off at full gallop over the prairie. Jack held on for dear life as **they split the wind**.

rein (명사) 고삐

snort (동사) (말 등이) 코를 킁킁거리다

whinny (명사) 울음소리

rustler (명사) 가축 도둑

thump (동사) 쿵쿵거리다

scramble (동사) (힘겹게 손으로 몸을 지탱하며) 재빨리 움직이다

3. 다음 중 위 글의 내용과 일치하지 **않는** 것은?

- ① Dusty는 잠시 동안 조용하다가 히힝거리며 걷기 시작했다.
- ② Jack은 말을 다루는 법을 기억하고는, Dusty에게 부드러운 목소리로 말을 걸었다.
- ③ Slim은 Dusty가 아닌 어미 말을 타고 있었다.
- ④ Jack은 가축 도둑들의 공격으로 말에서 떨어졌다.
- ⑤ 언덕 위에 하얀 빛나는 물체를 보고 가축 도둑들의 말은 놀라 달아났다.

4. 밑줄 친 ㉠의 의미로 가장 적절한 것은?

- ① 바람을 쐐었다
- ② 의견이 나뉘었다
- ③ 전속력으로 달렸다
- ④ 미련 없이 전부 버렸다
- ⑤ 소중한 것을 각각 같은 몫으로 나누었다

## APPENDIX 4.

### (2W) Writing Original Sentences

ID \_\_\_\_\_

\* 아래의 단어를 사용하여 다음과 같은 2가지 활동을 하고자 합니다.

(a) 주어진 의미에 맞게, 단어의 순서를 바르게 배열하여 문장을 만들어 보세요.

(b) 자신만의 문장을 만들어 보세요. (문법은 틀려도 되니, 의미를 알 수 있으면 됩니다.)

**halt**(명사): 멈춤, 중단

예) Jack heard the horses come to a halt.

(a) ◦ the car / to a sudden halt / came 차가 갑자기 멈췄다.

→ The car came to a sudden halt.

◦ to a halt / the bus / slowed 버스가 천천히 가다가 멈춰 섰다.

→ The bus slowed to a halt.

(b) The conversation came to a halt.

1) **cask**(명사): (술을 담아 두는 나무로 된) 통

예) Jack hurried to the empty cask.

(a) ◦ the water/ out of the cask/ leaks 통에서 물이 샌다.

→

◦ smells of the wine /every cask / it contains 포도주가 든 술통에는 포도주 냄새가 난다.

→

(b) \_\_\_\_\_

2) **hooves** (명사): hoof의 복수. 발굽

예) The ground rang from the thump of hooves.

(a) ◦ have / powerful front legs and/ they / sharp hooves 그들은 강력한 앞다리와 날카로운 발굽을 가지고 있다.

→

◦ the sound of horse's hooves/ somewhere / from / came 어디선가 말발굽 소리가 들렸다.

→

(b) \_\_\_\_\_

3) **thump** (동사): 쿵쿵거리다, (명사) 쿵 하는 소리

예) The thump faded away.

(a) ◦ A bird / against the window / thumped 새 한 마리가 창문에 쿵 하고 부딪쳤다.

→

◦ I can feel / thump / my heart / when I see him 그를 바라보면 내 심장은 쿵쿵거리다.

→

(b) \_\_\_\_\_

4) **snort** (동사): (말 등이) 코를 킁킁거리다

예) The horse snorted and began walking.

(a) ◦ I / the horse / could hear / snorting 나는 말이 콧김을 내뿜는 소리를 들을 수 있었다.

→

◦ tossed its head / and / snorted / the horse 말이 코를 킁킁거리며 머리를 흔들었다.

→

(b) \_\_\_\_\_

5) **colt** (명사): 수컷 망아지

예) The bond between a mare and her young colt is very strong.

(a) ◦ was / on the colt's back / sitting / Annie Annie는 망아지의 등에 타고 있었다.

→

◦ to the colt / Jack / was speaking softly Jack은 망아지에게 부드럽게 말을 했다.

→

(b) \_\_\_\_\_

6) **whinny** (동사): 조용히 울다, (명사) 울음소리

예) If the colt whinnies, it always bring the mare to him.

(a) ◦ a horse / a loud whinny / let out 말 한 마리가 크게 울었다.

→

◦ the mare / again / whinnied 암말은 다시 조용히 울었다.

→

(b) \_\_\_\_\_

7) **rustler** (명사): 가축 도둑

예) Rustlers captured wild horses and sold them to farm owners.

(a) ◦ are / rustlers / real bad guys 가축 도둑들은 정말 나쁜 놈들이다.

→

◦ came from / voices/ the rustlers' camp 가축 도둑의 캠프에서 목소리가 들려왔다.

→

(b) \_\_\_\_\_

8) **rein** (명사): 고삐

예) The cowboy held his reins.

(a) ◦ to stop the horse / I / drew the rein 나는 말을 세우기 위해 고삐를 당겼다.

→

◦ pulled gently / she / on the reins 그녀는 고삐를 부드럽게 당겼다.

→

(b) \_\_\_\_\_

9) **scramble** (동사): (힘겹게 손으로 몸을 지탱하며) 재빨리 움직이다

예) Jack scrambled back into the cask.

(a) ◦ scramble / she / managed to / over the wall. 그녀는 용케 그 담을 재빨리 타고 넘었다.

→

◦ three men / onto the roof / scrambled 세 남자가 지붕으로 재빨리 기어 올라갔다.

→

(b) \_\_\_\_\_

## APPENDIX 5.

### *Active Word Learning Test (pretest)*

ID \_\_\_\_\_

\* 다음 우리말 뜻을 가진 단어를 영어로 쓰시오.

철자의 일부라도 좋으니, 생각나는 대로 최대한 적으세요.

철자의 첫 글자는 주어집니다.

1. 몸을 재빨리 움직이다, 피하다 → d
2. 기울어지다, 비스듬해지다 → s
3. 숨이 턱 막히다,  
헉 하고 숨을 쉬다 → g
4. 난간 → balu
5. 높은 굴뚝 → s
6. (이빨을 드러내며) 으르렁거리다 → s
7. 스프르 미끄러지듯 나아가다 → s (7글자)
8. 제정신이 아닌 → f
9. 발을 헛디디다, 비틀거리다 → s
10. 윤이 나는 → g

\* 다음은 간단한 설문입니다. 해당되는 부분에 체크해주세요.

- 영어 사용 국가(예: 미국, 필리핀)에서 유학 경험이 있나요? 네  아니오
- 영어 사용 국가에서 6개월 이상 거주한 경험이 있나요? 네  아니오



*Passive Word Learning Test (pretest)*

ID \_\_\_\_\_

\* 다음 영어단어의 뜻을 우리말로 쓰시오.

품사에 맞는 형태로 쓰시오. [예: smart → 똑똑한 (o), 똑똑하다 (x)]

1.     dodge                                 →
2.     slant                                 →
3.     gasp                                 →
4.     balustrade                         →
5.     smokestack                         →
6.     snarl                                 →
7.     slither                               →
8.     frantic                               →
9.     stumble                              →
10.    glossy                               →

감사합니다.

*Active Word Learning Test (posttest)*

ID \_\_\_\_\_

\* 다음 우리말 뜻을 가진 단어를 영어로 쓰시오.

철자의 일부라도 좋으니, 생각나는 대로 최대한 적으세요.

1. 몸을 재빨리 움직이다, 피하다 →
2. 기울어지다, 비스듬해지다 →
3. 숨이 턱 막히다, →  
헉 하고 숨을 쉬다
4. 난간 →
5. 높은 굴뚝 →
6. (이빨을 드러내며) 으르렁거리다 →
7. 스프르르 미끄러지듯 나아가다 →
8. 제정신이 아닌 →
9. 발을 헛디디다, 비틀거리다 →
10. 운이 나는 →



## APPENDIX 6.

### *Active Word Learning Test (pretest)*

ID \_\_\_\_\_

\* 다음 우리말 뜻을 가진 단어를 영어로 쓰시오.

철자의 일부라도 좋으니, 생각나는 대로 최대한 적으세요.

철자의 첫 글자는 주어집니다.

1. 멈춤, 중단 → h
2. (술을 담아두는 나무로 된) 통 → c
3. 발굽 → h
4. 쿵쿵거리다, 쿵 하는 소리 → t
5. (말 등이 코를) 히히거리다 → s
6. 수컷 망아지 → c
7. 조용히 울다, 울음소리 → w
8. 가축 도둑 → r
9. 고삐 → r
10. (힘겹게 손으로 몸을 지탱하며) → s

재빨리 움직이다

\* 다음은 간단한 설문입니다. 해당되는 부분에 체크해주세요.

- 영어 사용 국가(예: 미국, 필리핀)에서 유학 경험이 있나요? 네  아니오
- 영어 사용 국가에서 6개월 이상 거주한 경험이 있나요? 네  아니오

*Passive Word Learning Test (pretest)*

ID \_\_\_\_\_

\* 다음 영어단어의 뜻을 우리말로 쓰시오.

품사에 맞는 형태로 쓰시오. [예: smart → 똑똑한 (o), 똑똑하다 (x)]

1. halt →
2. cask →
3. hooves →
4. thump →
5. snort →
6. colt →
7. whinny →
8. rustler →
9. rein →
10. scramble →

감사합니다.

*Active Word Learning Test (posttest)*

ID \_\_\_\_\_

\* 다음 우리말 뜻을 가진 단어를 영어로 쓰시오.

철자의 일부라도 좋으니, 생각나는 대로 최대한 적으세요.

1. 멈춤, 중단 →
2. (술을 담아두는 나무로 된) 통 →
3. 발굽 →
4. 쿵쿵거리다, 쿵 하는 소리 →
5. (말 등이 코를) 히히거리다 →
6. 수컷 망아지 →
7. 조용히 울다, 울음소리 →
8. 가축 도둑 →
9. 고삐 →
10. (힘겹게 손으로 몸을 지탱하며) →  
재빨리 움직이다

감사합니다.

**Passive Word Learning Test (posttest)**

**ID** \_\_\_\_\_

\* 다음 영어단어의 뜻을 우리말로 쓰시오.

품사에 맞는 형태로 쓰시오. [예: smart → 똑똑한 (o), 똑똑하다 (x)]

- 1. halt →
- 2. cask →
- 3. hooves →
- 4. thump →
- 5. snort →
- 6. colt →
- 7. whinny →
- 8. rustler →
- 9. rein →
- 10. scramble →

\* 다음 단어 중 이번 활동을 통해서 알게 된 단어가 아니라, 원래부터 알고 있던 단어가 있다면 □안에 체크해주세요.

halt	<input type="checkbox"/>	cask	<input type="checkbox"/>	hooves	<input type="checkbox"/>	thump	<input type="checkbox"/>	snort	<input type="checkbox"/>
colt	<input type="checkbox"/>	whinny	<input type="checkbox"/>	rustler	<input type="checkbox"/>	rein	<input type="checkbox"/>	scramble	<input type="checkbox"/>

## 국 문 초 록

단어는 외국어 학습의 기본으로서, 많은 단어를 제한된 시간 내에 효율적으로 학습하는 방법은 영어를 외국어로 배우는 한국의 교실 상황에서 큰 관심이 되어 왔다. 본 연구에서는 어휘 학습에 영향을 미치는 다양한 변인 가운데 통제 가능한 두 가지 변인인 과업관여도와 단어노출빈도가 한국 중학교 영어 학습자의 제2언어 어휘 학습에 미치는 영향을 연구하였다. 지금까지 과업관여도와 단어노출빈도 두 변인을 결합한 연구가 드물었고, 두 변인을 함께 다룬 연구조차 두 변인 중 무엇이 더 중요한지에 대해 상반된 결론을 내렸다. 또한 단어노출빈도도 유의미한 단어 학습이 일어나기 위한 최소한의 노출 요구치인 6 번을 충족하지 못한 연구가 대다수였다는 한계점이 있다.

본 연구는 60 명 (43 명의 상급 학습자와 17 명의 중급 학습자)의 한국 중학생 3 학년을 대상으로 6 주간 진행되었다. 두 가지 어휘 과업은 다른 횟수로 시행되었는데, 과업관여도가 낮은 주석 달린 읽기는 3 번, 과업관여도가 높은 쓰기 과업은 1 번 진행되었다. 모든 참여자들은 각각의 과업을 두 세션에서 번갈아 가며 수행하였다. 읽기 과업에서는 한 단어당 최대 12 번의 목표 단어 노출이, 쓰기 과업에서는 7 번의 단어 반복이 되었다. 각 세션의 마지막 시간에는 목표 단어에 대한 즉시 사후 평가가 시행되었다. 사후 평가는 적극적 단어 시험과 소극적 단어 시험으로 구성되었다.

이원반복분산분석을 실시한 결과, 과업관여도와 단어노출빈도 중 단어노출빈도가 단어 습득에 미치는 영향이 더 큰 것으로 나타났다. 최소 6 번 이



상의 충분한 단어 노출 조건이 충족된다면 세 번의 읽기 과업이 한 번의 쓰기 과업보다 더 많은 단어 습득을 가져왔다. 또한 전체 시험과 적극적 단어 시험의 경우에는 과업관여도와 단어노출빈도의 다른 조합이 단어 습득에 유의미한 영향을 준 반면에, 소극적 단어 시험에서는 유의미한 영향이 나타나지 않았다. 한편 학습자의 수준과 관련하여 상급 학습자는 중급 학습자보다 모든 시험 유형에서 높은 단어 습득을 보였으며, 학습자의 수준에 관계없이 모든 참여자가 세 번의 읽기 과업에서 유의미하게 보다 높은 단어 습득의 경향을 보였다. 이와 같은 일관된 결과는 교사 및 교재개발자에게 학습자의 수준과 관계없이 효율적인 외국어 단어 지도 방안에 대한 시사점을 제공한다.

주요어: 제2언어 어휘 학습, 과업관여도, 단어노출빈도, 수준별 단어 학습

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