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교육학석사학위논문

Effects of Online Extensive and Narrow Reading
on Reading Comprehension and Attitudes
of Korean Middle School English Learners

온라인 기반 다독과 좁혀읽기가 한국 중학교 학생들의
영어읽기 이해의 발달과 정의적 영역에 미치는 영향

2015년 8월

서울대학교 대학원
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Effects of Online Extensive and Narrow Reading
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of Korean Middle School English Learners

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ABSTRACT

The act of reading cannot be underestimated in its role as an immediate source of authentic input, nor can its influence on language learning be left understated, particularly in English as a foreign language (EFL) environment. Hence, the importance of high frequency reading practice has long been emphasized for it is commonly believed that reading can be learned by reading. Yet, in most Korean secondary schools, teaching reading in English involves limited reading practice in or outside of class. This quasi-experimental study, therefore, adopts online-based extensive reading (ER) and narrow reading (NR) approaches in an effort to engage Korean middle school English learners with meaningful reading practice outside of school environments. The purpose of this study was to examine the impact of ER and NR on Korean middle school English learners in terms of their reading comprehension and attitudes toward second language reading with an additional attempt to determine if this impact of ER and NR is dependent on the learners' English proficiency levels.

A total of 90 eighth grade female learners were divided evenly into three groups, and each group included 14 learners with high English proficiency and 16 learners with lower English proficiency. Among them, two groups each engaged in ER and NR over 14

weeks out-of-class using online reading programs while the remaining group did not. A set of a reading comprehension test and a written survey questionnaire was given at the beginning and the end of the study to measure the students' reading performance and attitudes. A series of statistical analyses was used to interpret the quantitative data obtained from the reading comprehension tests and the questionnaires. The qualitative responses from the questionnaires were analyzed through a content analysis.

The results demonstrated that ER and NR both contributed profoundly to the improvement of learners' reading comprehension and attitudes. However, the further analysis on the reading comprehension of different proficiency groups revealed that ER and NR did not significantly improve the reading comprehension of high English proficiency learners in these groups. Several possible reasons were offered to explain such result. The overall findings of this study demonstrated and increased the pedagogical value of independent ER and NR for use as effective reading approach for young English learners in EFL contexts, particularly those with less advanced English proficiency.

Keywords: L2 reading, narrow reading, extensive reading, reading comprehension, reading attitudes

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CHAPTER 1.

INTRODUCTION

This study investigates how engaging in extensive reading and narrow reading affects Korean middle school English learners' reading comprehension and attitudes. It also determines whether these effects are dependent on a learner's English proficiency. In this chapter, the background of the study is first discussed in Section 1.1. Then Section 1.2 clarifies the purpose of the study, and Section 1.3 presents the set of research questions for the study. Finally, the organization of the thesis is outlined in Section 1.4.

1.1 Background of the Study

In Korea, the ultimate goal of secondary English education has been developing students' communicative competence at the rudimentary level (Ministry of Education Science and Technology, 2011). However, in an EFL environment like Korea, the lack of exposure to the language outside of class causes learners' language development to progress more slowly than that of learners in English-speaking countries. Brown (2007) advises teachers to create opportunities for students in such environment to be exposed to second language (L2) texts as means of facilitating more exposure to the language. L2 texts as language resources are particularly crucial for learners in EFL environment as those texts not only provide the learning opportunities of rhetoric and writing styles but also compensate for the lack of frequent and authentic interactions with the language in other forms. Moreover, L2 reading may empower Korean EFL learners in greater

“knowledge economy” of the world by allowing them to read and learn from vast amount of information and knowledge presented in English. Hence, L2 reading ability at reasonably high level of proficiency is in great demand by those who wish to achieve personal, academic, and professional goals (Shin, 2013). When considering the important role of reading L2 texts as an immediate resource for authentic language input for EFL learners, the present study is designed to further understand L2 reading development and investigate feasible methods in order to maximize the efficacy of L2 reading practices for Korean English learners.

Researchers could not neglect the importance of reading in language learning, and they have investigated various cognitive, affective, and sociocultural factors in order to understand what distinguishes proficient readers from others. Though research on reading has not yet reached a consensus, findings on reading over the past 25 years or more emphasized the importance of continuous text exposure and reading practice along with encouraging positive reading attitudes as successful factors to improve both L1 and L2 reading (Hanlon, 2013; Jung, 2013; Ro & Chen, 2014). Many researchers have introduced extensive reading (Day & Bamford, 2004; Elley, 1991), reading outside of school (Anderson, Wilson, & Fielding, 1988; Pforst, Dorfler, & Artelt, 2013; Watkins & Edwards, 1992), and narrow reading (Ahn, 2003; Cho, Ahn, & Krashen, 2005; Choi, 2014; Kongpetch, Wong, & Boon., 2009; Min, 2008; Paek, 2008) as effective approaches to reading that could increase interactions with texts and encourage positive reading attitudes.

The focus and actual practices of teaching English in Korea, however, challenge the growing importance of L2 reading and pedagogical values in

research-based approaches to L2 reading. When teaching L2 reading, the focus of lessons is usually on the translation of texts to Korean with subsequent analyses emphasizing difficult vocabulary and key sentence structures using teacher-centered instructions (Jung, 2014; Stoller, 2015). Additionally, teachers mostly use short reading passages from a government-verified mandated textbook without giving students any choice in what they read. Thus, this rigid and limited amount of reading materials discourages students from having their own personal interest in reading. In fact, Korean middle school learners were found to read an average of 12 to 15 short passages (i.e., 5 pages) in total annually regardless of their English proficiency and interests (Shin, 2003). This state of teaching L2 reading in classrooms restricts students' opportunities to read and learn to read. In this sense, Korean students are systemically discouraged from engaging in L2 reading; criticisms toward lack of authenticity in reading, limited reading practices, and disrespecting individual differences are inevitable (Jung, 2014; Min, 2013).

The current state of L2 reading materials and practices in Korean English classrooms, therefore, raises a question that represents a critical educational problem: Can Korean students become proficient and confident readers? It is doubtful that the restricted exposure to L2 texts and limited reading practices in classrooms would be sufficient enough to motivate all Korean students into developing the rudimental reading competency stated as the goal of English education in Korea. Therefore, actual implementations of reading approaches to enhance reading practices of Korean young learners and investigation on their effects by measuring improvements in reading performance and attitudes are on demand for L2 reading research in Korean EFL contexts.

1.2 Purpose of the Study

The deficiencies in teaching and learning of L2 reading in Korea demonstrate the need to provide more effective reading methods that encourage students to read comprehensible, interesting, and enjoyable texts in large quantities. This is where extensive reading (hereinafter ER) and narrow reading (hereinafter NR) fit in well, as their purposes are to provide large quantities of self-selected enjoyable reading without pressure. ER is an approach to teaching and learning of reading that focuses on providing pleasure and comprehensible reading across themes and authors, expecting to develop reading habit, confidence, and competency as consequences. NR also aims for reading habit and competency development but through pleasure and comprehensible reading of narrowed reading resources merely to either a single theme or an author of a reader's interest. NR confides that this approach will eliminate frustration and ease comprehension processes while providing sufficient complexities and variations in writing of texts.

Though ER and NR do not differ yet rather overlap each other in some features, the present study purposefully chose them among other reading approaches in order to examine whether the different nature of ER and NR, the broadness of reading, resulted in significantly different outcomes or comparable outcomes in the students' reading comprehension and attitudes. This investigation attempts to illustrate whether the concern towards NR that language learners will only make moderate development on general reading comprehension when input provided is from the narrower resource (Choi, 2014; Kongpetch et al., 2009) can be justified and enhance the importance of

broad reading for general L2 comprehension or can be resolved and suggest NR as another effective reading approach.

Previous research has successfully illustrated the positive effects these reading approaches have on language learners. ER was found to have significant effects in improving L2 reading performance (Beglar, Hung, & Kite, 2012; Chen, 2013; Iwhori, 2008) and attitudes toward reading (Yamashita, 2013). Even though narrow reading has not captured enough attention from researchers to be empirically verified as an effective reading approach, several research studies conducted in Korea with younger learners found the positive effects on language learning (Ahn, 2003; Cho et al., 2005; Min, 2008) and on reading attitudes (Choi, 2014). Thus, it is of imminent importance to implement ER and NR teaching methods to fill the gap between what students need and what students actually do.

However, in spite of theoretical and empirical evidence on the value of extensive and narrow reading, there is “a total of absence of extensive reading” in many L2 settings like Korea (Stoller, 2015, p. 157). This unpopularity of ER and NR may be due to limited classroom hours, already-crowded curriculum, high stake school assessments, dominance of grammar-translation method to reading, and lack of plentiful reading materials (Day & Bamford, 2004; Grabe, 2009; Helgesen, 2005). Even when previous studies have implemented either ER or NR, they have treated them as a regular class or extracurricular school instruction. In other words, many studies assigned reading materials and often accompanied lesson plans to discuss about what they read. However, this explicit connection to class content often challenges the individualized nature of ER and NR (Arnold, 2009).

Hence, the present study first aims to design and implement a more feasible yet systematic approach to ER and NR to overcome these challenges—using online reading programs as a tool for ER and NR, students read at the appropriate level, out of class independently by choosing their own reading materials as well as time and place to read. Reading e-books using online reading programs, different from reading books offline, found to be beneficial to young learners in improving their reading comprehension and general motivation to read with the help of graphical and aural features within (Adam & Wild, 1997; Arnold, 2009). Further, the online reading programs enable the readers to browse, choose, and read ubiquitously and monitor reading progress for reminders. This particular study, therefore, is meaningful as it chooses to test the effects of ER and NR together and the feasibility of conducting these reading methods free from the school curriculum through online reading program to Korean middle school students at the different proficiency levels.

1.3 Research Questions

This study poses the following research questions to achieve an understanding of how ER and NR affect Korean middle school learners at the different proficiency levels in terms of their L2 reading comprehension and attitudes toward reading.

1. How does engaging in ER and NR using an online reading program affect L2 reading comprehension of Korean middle school English learners at the different proficiency levels?

2. How does engaging in ER and NR using an online reading program affect L2 reading attitudes of Korean middle school English learners at the different proficiency levels?

1.4 Organization of the Thesis

The present thesis consists of five chapters including this chapter. As Chapter 1 introduces the purpose of the study and proposes research questions, Chapter 2 builds a logical foundation to the research questions through an overview of extant theoretical and empirical studies on current understandings of L2 reading and those of ER and NR. Chapter 3 then describes methodology employed in this study and data collection procedure. The results from the study and the findings from the results will be presented and discussed in Chapter 4. Finally, Chapter 5 articulates the major findings and some limitations of the study and concludes the study with suggestions for further studies.

CHAPTER 2.

LITERATURE REVIEW

This chapter reviews a body of extant literature relevant to the present study. Sections 2.1 and 2.2 first outline current understandings of reading in second language learning and development of L2 reading in EFL context. Then Section 2.3 defines and introduces the theoretical backgrounds of ER and NR to justify the implementation of these reading methods for the current study. Lastly, an overview of empirical evidence supporting ER and NR is presented thoroughly in Section 2.4.

2.1 Reading in Second Language Learning

Along with the proliferation of information and advances in technology, there is growing demand and embodied empowerment for proficient literacy skill in multiple languages. Hence, reading becomes an essential language skill both in a first language (L1) and a second language (L2). While the ability to read well in L1 is “the foundation for a life for security and fulfillment” (Gembrell et al., 2011, p. 143), the ability to read in a second language is an access to “the wealth of information recorded exclusively in the language” (Eskey, 2005, p. 563). Recently, Shin (2013) also recognizes a growing importance of L2 reading, particularly in an EFL context by stating that “a reading knowledge of a foreign language is very important to professional success, personal development, and academic studies in many parts of the world, like in EFL education settings” (p. 159).

For learners of English in EFL environment, reading can be more than just a skill. Learners with limited L2 exposure in their everyday lives, can utilize reading as a major source of authentic language input, filling a quantitative gap in L2 exposure (Eskey, 2005). Through reading materials, learners of English in EFL contexts interact with mostly grammatical, meaningful, and embedded features of the target language with the obvious exception of pronunciation. Those learners who read frequently, therefore, develop various facets of the target language such as vocabulary knowledge, comprehension ability, grammatical knowledge, and writing styles as the result of interactions with various kinds of authentic language input (Krashen, 1993).

In recognizing the critical role of reading in language learning, the research field of both L1 and L2 reading has come a long way in attempting to identify and suggest reading models, influential factors, approaches to reading, and reading strategies for learners. The following section first attempts to illustrate three leading perspectives on L2 reading to gain better understandings on L2 readers' reading comprehension process and then presents pedagogical concerns in L2 reading development to suggest ER and NR as appropriate reading methods for L2 readers.

2.2 Development of Second Language Reading

Examining reading processes and searching for effective reading practices have been popular research topics in the field of reading research. However, not a single reading model or approach to reading practice could dominate the field as reading is a cognitive, sociocultural, and individual practice far more complex than simply decoding written words and sentences. In addition to the

already complicated process of reading in L1, reading in a second language further potentially involves unique thought processes, feelings, and beliefs as constructed by L2 readers' real-world experiences. Though L2 reading is never easy to achieve, continuous studies on L2 reading contribute to a better understanding of how L2 readers develop comprehension of L2 texts and to provide helpful guidelines for the teaching of L2 reading. Therefore, the following sections will illustrate currently prominent understandings on L2 reading and implications for teaching L2 reading.

2.2.1 Current Perspectives on L2 Reading

As early as 1960s, researchers have investigated the components and properties of readers' reading processes. More precise and revealing reading models appeared concurrent with on-going research along with new methodologies of measuring readers' cognitive processes. The current understandings of L2 reading processes largely depends on those of L1 as many scholars believe in that "basic cognitive processes operate similarly across languages" (Nassaji, 2011, p. 175). According to Grabe (2009), reading is currently considered to involve multi-levels of cognitive processes that are classified into lower-level and higher-level process of reading. Lower-level processing consists of potentially automatic components, such as word recognition that supports comprehension, while higher-level processing includes use of background knowledge to build a cognitive network for comprehension (Grabe, 2009). Hence, readers must be adept at most subcomponents of lower and higher level processing in order to attain proficient reading comprehension.

However, which subcomponents are particularly essential in developing reading comprehension has not yet reached a consensus among reading researchers. Also, the extant reading models fail to appreciably explain readers' psycholinguistic processes completely. This absence of a single prevailing reading model and the complicated nature of reading induce more and more researchers to investigate other factors that intervene reading comprehension by accelerating or delaying the reading processes. As a result, more recent reading research topics shift the focus from explaining how people generally read as a member of the human species to specifying how sociocultural and individual differences influence their reading processes (Grabe, 2009). This shift in research framework beyond the psycholinguistic process of reading allows to examine and discuss areas particularly relevant to the reading comprehension and reading behaviors of L2 readers.

Researchers who view reading as a sociocultural practice recognized that L2 reading, unlike L1 reading, involves "learning to engage in a new set of social practice that may conflict with those [of what L2 readers are] used to" (Eskey, 2005, p. 570). In other words, it's a type of sociocultural phenomenon that where readers belong influences on their processing of texts, particularly that of L2 texts. For instance, authentic L2 reading materials may be unfamiliar to L2 readers as they often include a common knowledge and value system and written discourse styles that are developed within particular culture (Lesaux et al., 2006). Hence, research on the impact of background knowledge on L2 readers' reading comprehension also confirmed the importance of background knowledge and implied the demand for L2 reader to be familiar with it through persistent exposures and

reading of L2 written discourse (Bernhardt, 2009; Droop & Verhoven, 1998; Hacquebord, 1994). These findings once again confirm that L2 reading necessitates a kind of sociocultural practice which acculturates L2 readers to acknowledge, understand, learn, and ultimately engage in what the particular culture has developed.

Though readers' social and cultural experience can constrain their L2 reading comprehension as sociocultural perspective suggests, some researchers argue that reading is essentially a kind of behavior that is carried out individually. Thus, research based on this perspective employed case studies, survey questionnaires, interviews, or protocol analyses as means of discovering the impact of reader's individual factors on reading (e.g., Bernhardt, 1991; Cho & Krashen, 1994). As a result, researchers have examined L2 readers' individual reading behaviors and attitudes (e.g., Eskey, 2005; Yamashita, 2004). Based on these research findings, it is now generally understood that reading amounts, motivation, reading strategies, and general L2 language proficiency have a very close relationship with L2 readers' reading proficiency. Therefore, it can be inferred that respecting autonomy and individual differences in reading can foster readers to become proficient and independent readers.

2.2.2 Pedagogical Concerns in Developing L2 Reading

Most recent research on reading incorporates at least one of the perspectives on L2 reading stated above. Each of these perspectives toward L2 reading suggests factors that contribute to proficient reading. Reading researchers have attempted to identify and provide guidelines for teachers of L2 reading by examining factors that are argued to be related to proficient

reading. First, the perspective on reading as a psycholinguistic process emphasizes on “the assembly, coordination, and automatic uses of multiple component processes” (Adam, 1990; Stanovich, 2000; as cited in Paris & Hamilton, 2009, p. 38). The roles of memory, acquiring components in the lower-level process, and integrating them for the higher-level process are considered essential for reading development (Grabe, 2009; Paris & Hamilton, 2009; Stoller, 2015). Researchers who investigate the roles of sociocultural factors in second language learning or L2 reading, focus on the influences of learners’ L1 experiences and L2 background knowledge. Hence, they believe learning of specific L2 rhetoric and being familiar with specific cultural background would lower cognitive loads which is eventually expected to lead to proficient reading (Eskey, 2005). Lastly, research adhering to a perspective of reading as an individual behavior has contemplated the influence of motivation, attitude, and individualized input (Eskey, 2005; Gambrell et al., 2011; Grabe, 2009).

Skills or factors that these three perspectives on L2 reading mark essential to become a proficient L2 reader vary. This implies that proficient and confident reading requires rather integrated cognitive skills and involves psychological and social factors to achieve the complete understandings of texts, well beyond simple decoding of them. Therefore, effective approaches to teaching and learning L2 reading are those which guide and assist learners to acquire multifaceted components to comprehend messages of texts and have positive experience in reading for readers’ prolonged reading. In her newly shaped top-five priorities for teachers of reading, Stoller (2015) insists that these multiple components and skills can only be achieved through

reading: “The best way to help students learn to read and improve their reading skills is through reading itself” (p. 152). She later adds that “there really is no substitute for the actual act of reading, if we strive for L2 students to become fluent and confident readers” (p. 153). The positive relationship between reading practice and reading achievement has long been recognized by researchers and educators (e.g., Anderson et al., 1988; Cullinan, 2000).

This importance of reading practice propose reading teachers with two goals—teaching students to read and teaching students to want to read (Kasten & Wilfong, 2005). However, as recognized by many researchers, language learners often are frustrated by “a laborious, unpleasant, and ultimately unsuccessful process” of L2 reading (Arnold, 2009, p. 340). It is likely that this frustration makes language learners reluctant to read in the target language often, which could eventually lead to a vicious cycle of reading: they do not engage in frequent reading, read slowly, experience difficulty in comprehending the ideas across sentences, do not enjoy reading, and avoid reading (Arnold, 2009; Nuttall, 1982; Pulido & Hambrick, 2008). Tomlinson (2000) pointed out intensive reading, the most common traditional approach to L2 reading instruction, as a potential root of the above problems that language learners faced: “Many learners...have been made to read linguistically: i.e., to process a text unidimensionally through the verbal code rather than to represent it multi-dimensionally through verbal, sensory and affective codes” (p. 524). Unlike intensive reading which functions as a language lesson for decoding skills and grammatical constructs, both ER and NR resemble more real-life reading and provide opportunities for plenty of enjoyable reading about their interests at their reading level. The present study,

therefore, chose these reading approaches as approaches to engage Korean middle school English learners in experiential reading to improve their reading comprehension and develop positive attitudes toward reading in English. The following section introduces ER and NR and provides theoretical backgrounds of ER and NR to justify in what ways these approaches enhance reading performance and liking of reading.

2.3 Fundamentals of Extensive and Narrow Reading

Since the end of 20th century, the paradigm of teaching and learning L2 reading has been transforming from the grammar-translation approach emphasizing language form and skills to the more learner-centered voluntary reading approach which emphasizes reading for meaning or content and for improving integrative language skills (Shin, 2013). Within this paradigm, ER and NR can provide compelling platforms to promote the developments in reading comprehension and attitudes and further the continuous reading behavior as indicated from the following explanations.

2.3.1 Definition, Characteristics, and Theoretic Foundations of ER

Extensive reading is one of the most popular reading approaches suggested as early as 1970. This reading approach has been defined, used, and applied widely as a possible and promising way of improving L2 reading proficiency. According to Day and Bamford (1998), ER is “an approach to the teaching and learning of second language reading in which learners read large quantities of books and other materials that are well within their linguistic competence” (p. 9). Through ER, learners tend to be “interested in

what they are reading and should be reading with their attention on the meaning of the text rather than on learning the language features of the text” (Nation, 2009, p. 50); the ultimate goal of ER, hence, is “[developing] good reading habits, to build up knowledge of vocabulary and structure, and to encourage a liking for reading” (Richards & Schmidt, 2002, p. 193-194).

Day and Bamford (2004) further expanded the definitions and goals of ER by listing its characteristics in terms of 10 principles for pedagogical approach to ER:

1. The reading material is easy.
2. A variety of reading material on a wide range of topics is available.
3. Learners choose what they want to read.
4. Learners read as much as possible.
5. Reading speed is usually faster rather than slower.
6. The purpose of reading is usually related to pleasure, information, and general understanding.
7. Reading is individual and silent.
8. Reading is its own reward.
9. The teacher orients and guides the students.
10. The teacher is a role model of a reader. (p. 2-3).

Even though ER is also called as pleasure reading, free voluntary reading, uninterrupted sustained silent reading, book flood, and Drop Everything And Read (DEAR), they share the underlying tenet that learners are provided with large quantities of easy reading materials to engage in the independent enjoyable reading of self-selected materials to develop reading

habit, build confidence in language learning, and develop reading proficiency consequently. Hence, the present study reflects the core tenets from the definitions and incorporates Day and Bamford's (2004) principles when implementing ER. The students who engaged in ER within this particular study were provided with e-texts (i.e., including e-books and other online reading materials) of various genres and topics within "i-1" to "i+1" difficulty ranges to choose from, encouraged to read in large quantities by emphasizing enjoyable reading, individualized reading by using electronic devices as the medium to read anytime and anywhere out-of-class, and guided them to read as the role model of a reader during the lunch time.

As ER assumes the natural development in reading ability through extensive exposure to comprehensible written material with minimal controls and instructions on linguistic aspects as well as the engagement and liking of reading through self-selection of reading materials and meaning-based reading, it is in part derived from Whole Language or Natural Language approach (Hedgcock & Ferris, 2009; Shin, 2013). Hence, Krashen's assertion reflected in the Comprehensible Input Hypothesis (1985) and in the Pleasure Hypothesis (2004) are cited most frequently as theoretical foundation of ER. According to Krashen (1982), learners only subconsciously acquire language through repeated exposures of input "a bit beyond [their] current level of competence" in low anxiety situation (p. 21). Though Day and Bamford (2004) later proposed a different perspective on the difficulty level of comprehensible input as "i-1" where "i" refers to the current language ability of the learner, whereas '1' indicates the input that is slightly challenging for learners' current language ability" (Chiang, 2015, p. 3), the subconscious acquisition of the

target language when flood of comprehensible input is provided still remained as a strong theoretical framework supporting ER.

Further, unlike intensive reading, which heavily focuses on complete decoding and comprehension of a short text, ER rather encourages readers to choose inspiring reading materials and read for meaning rather than form. Hence, “learners are less conscious of language acquisition and achieve what is called incidental learning” when the empowerment through choosing of their own reading materials arouse their interest in reading (Krashen, 1989, p. 440). This is in line with the Pleasure Hypothesis (Krashen, 2004a) that enjoyable pedagogical activities help language acquisition. Brown (2007) supported Krashen’s assertion by adding that the language acquisition will occur “in environments where anxiety is low and defensiveness absent” at the best (p. 295). Krashen remarked voluntary reading outside the classroom as one of pleasing reading activities based on the result of growing positive attitudes toward reading in Mason and his study (1997). Following the predictions of these hypotheses, ER can facilitate language learning as input is comprehensible and motivational enough for students to read more and more, become a better reader, and may end the vicious circle of non-reading. Whether the results of empirical studies yield the support for these hypotheses for ER will be examined in Section 2.4 when reviewing notable extant literature on ER.

2.3.2 Definition, Characteristics, and Theoretic Foundations of NR

Compared to ER, narrow reading is relatively a novel approach to teaching and learning of second language reading which can be considered as a subset of ER. While ER includes reading about a wide range of topics

“to become familiar with different genres, text structures, and language patterns,” NR instead entails narrowing the easy reading materials to a single author, genre, theme, or topic to facilitate comprehension and acquisition of form-meaning relationships (Nassaji, 2011, p. 181). It may also be referred as deep reading, theme-based or topic-based reading, and focused reading. Through NR, readers recognize and build shared vocabulary, constructs, and background knowledge across the similar if not the same context through text redundancy (Cho, Ahn, & Krashen, 2005).

According to Krashen (2004b), it is hypothesized that NR is more efficient for second language learners when applied in earlier stage of language acquisition since it promotes not only plenty of deep reading in any self-selected topic that gets more comprehensible and enjoyable but also building of repeated vocabulary, discourse, and background knowledge. In other words, NR facilitates noticing of the saliency of repeated linguistic features and lowers cognitive load by involving familiar contents within reading materials. Therefore, as Schmidt (1990) asserts in his Noticing Hypothesis, NR readers have more opportunities to notice or consciously register input for it to become intake for language learning. The noticing of linguistic features, hence, would be an essential starting point and would promote incidental learning of the noticed features. Moreover, familiar contents across reading materials would encourage NR readers to overcome “the first few pages” effect in which indicates the initial difficulty that intermediate foreign language students experience when reading the first few pages of a new work due to different contexts, stories, and writing styles (Krashen, 2004b; Yang, 2001). Hence, NR makes the readers to move away

from frustration as well as eases comprehension processes.

Similar to ER, NR is highly motivated reading activity for readers who can choose a topic of real interest and do not need to face with “the combination of new vocabulary, unfamiliar style, lack of context, and lack of interest in the subject matter” (Krashen, 2004b, p. 18). Therefore, NR may result in the readers’ reading for the message and meaning rather than for deliberate decoding. Though the characteristics of NR are hard to draw due to the limited literature, Bryan (2011) provides essential explanations on Krashen’s suggestions for self-instructed NR:

1. Lower your standards—reading should be easy and enjoyable, and preferably “light” in nature. Enough narrow reading would prepare to read “demanding” texts.
2. Don’t worry about pushing ahead rapidly to harder and to different material—the reader should gradually move from one field to another as he or she feels comfortable.
3. If the book or magazine is too hard, or not really interest, stop reading and find something else—the book must always be enjoyable, and never so much of a challenge that the reader would rather not read it.
4. Carry the book or magazine with you everywhere—a reader is more likely to find time to read a book if she or he carries it throughout the day. (p. 118).

In accordance with these suggestions and the results of previous studies on NR, the students who engaged in NR for this particular study were provided

with e-texts (i.e., including e-books and other online reading materials) of a single self-selected theme (e.g., animal, future jobs, famous people, school life) within “i-1” to “i+1” difficulty ranges to choose from, encouraged to enjoy reading for meaning, used electronic devices as the medium to read anytime and anywhere out-of-class, and guided them to read during the lunch time.

2.4 Evidence on Extensive and Narrow Reading

Since ER and NR are suggested as pedagogical approaches to teaching and learning of L2 reading, much research has been conducted in the field of education to examine whether they has beneficial results. In the following, summaries and discussions of empirical findings on ER and NR that particularly investigated learners’ reading comprehension developments and attitude changes are presented, respectively.

2.4.1 Previous Studies on Extensive Reading

Research conducted in ESL/FL contexts has shown that ER benefits language learners by improving their reading ability in terms of reading comprehension and speed (Bell, 2001; Elley & Mangubhai, 1983; Iwahori, 2008; Jung, 2014; Mason & Krashen, 1997; Park, 2008; Taguchi, Tkaysu-Mass, & Gorsuch, 2004; Tanaka & Stapleton, 2007), vocabulary growth (Cho & Krashen, 1994; Kweon & Kim, 2008; Pigada & Schmitt, 2006; Shin, 2003), and other language skills of writing (Hafiz & Tudor, 1990; Kim, 2014; Lai, 1993; Tsang, 1996). For example, Elley and Mangubhai (1981, 1983) implemented a reading-based program known as “Book Flood” to 380 young

learners who are enrolling in 12 Fijian rural elementary school Class 4 and 5 (9 to 11 years old) to investigate the effects on the development of L2 receptive skills. The results of these studies show the significant increase on measures of language use (i.e., oral language, reading comprehension, and writing), language knowledge (i.e., word recognition, vocabulary knowledge, and grammar), and academic performance (i.e., the examinations used across the Fiji elementary schools) of students who were in Book Flood groups.

In the years following Elley and Mangubhai's studies, researchers explored the impact of ER on other aspects of reading. Bell (2001) compared the reading speeds and comprehension of elementary level language learners in Yemen who extensively read graded readers (ER group) and those who intensively read short texts (IR group). He found that the learners, who spent 36 hours of class time to read extensively choosing from up to 2,000 graded readers, achieved significantly faster reading rates and higher scores on reading comprehension than those in IR group. Iwahori's (2008) study confirmed Bell's results as 33 Japanese high school students showed the significant improvements in reading rate and general language proficiency from the pretests after reading graded readers and comic books for ER. It is indicated that these improvements in language learners' reading proficiency were derived from such practice of reading that eases language learners and directs their focus on meaning and contents (Nation, 2009).

Given vocabulary as an indispensable part in language learning, many studies have investigated and recognized that ER plays a pivotal role in vocabulary development. The results from Pigada and Schmitt's (2006) case study of French learner also support incidental learning of new vocabulary as

an integral part of ER by showing enhanced knowledge of target words and spelling and improved meaning and grammatical knowledge as a result of ER. In addition to vocabulary growth, ER also helps to improve other language skills, particularly writing. Hafiz and Tudor (1989) organized three groups of Pakistan secondary school students and applied an ER program of reading self-selected graded readers for a 40-minute class period over 23 weeks to one experimental group to investigate the effects of ER upon reading comprehension and writing skills over three months. They found the experimental group's significant improvement in reading comprehension and writing skills and acknowledged exposures to a wide range of lexical, syntactic, and textual information within graded readers as a main reason for such improvement.

Besides learners' linguistic improvements, ER also appeared to be effective in facilitating positive changes in attitude and motivation toward reading, and language learning in general (Asraf & Ahmad, 2003; Hitosugi & Day, 2004; Jung, 2013; Mason & Krashen, 1997; Yamashita, 2004). Mason and Krashen (1997) found that once struggling and reluctant Japanese university students were developed into rather eager readers when engaging in ER in place of traditional teaching. Asraf and Ahmad (2003) confirmed Mason and Krashen's results as their participants also showed positive changes in reading attitudes and more motivated behavior toward reading in English. When Tanaka and Stapleton (2007) asked the participants to evaluate their experience of ER after reading graded readers for five to ten minutes of class, the participants preferred reading for general comprehension to the standard intensive reading and enjoyed reading

materials that are in line with their interests and easier than the textbooks. While most studies on ER, including the aforementioned studies, were conducted using offline reading materials, few reported on the results of using online resources. Of all the researchers, Arnold (2009) implemented an online reading program that featured eight German English learners' free selection of authentic online reading materials outside of class and assessed their reflections on online ER experience. The students responded that they are more motivated to read, feel more confident in their reading ability, improve reading ability, and are willing to read for pleasure outside of class. Arnold's study is significant evidence to the present study as it demonstrates use of online reading program outside of class that eliminates follow-up activities and instructor's preselection of materials is motivational enough to engage the students to read and change their attitudes toward reading.

A large number of research on ER was also conducted in a Korean EFL context and compiled to provide insight with regard to the effects on Korean English learners' reading proficiency and attitudes. Among many, studies that share similar participants or approaches to the present study are Lee and Kim's (2007) and Jung's (2014) recent research investigating the effects of ER on Korean middle school English learners' reading comprehension and attitudes. First, Lee and Kim (2007) aims to implement a level-differentiated ER to Korean middle school English learners as a part of class activity for eight months. The learners at three different proficiency levels read extensively from a collection of 400 books for approximately 64 hours and engaged in follow-up activities such as reading logs and book presentations throughout the study. The study measured the learners' language skills and

reading attitudes using learning style questionnaires, interviews, and written tests. The results on written tests revealed that the learners' reading ability was evenly improved in all three proficiency levels while the interviews and questionnaires showed that the highest proficiency group and the intermediate proficiency group developed personal reading styles and positive attitude toward reading, respectively.

Jung (2014) also implemented ER during an extracurricular class with 30 Korean middle school English learners for 6 months. As the school already had a large collection of books written in English, the researcher determined levels of these books using research-based reading program. The extracurricular class consisted three stages of reading (i.e., pre-reading, reading, and post-reading). The learners first became familiar with a pre-selected book, read a book for their choice for 30 minutes, and presented a summary or book report in front of the whole class. From the results of reading comprehension tests and questionnaires, Jung(2014) concluded that the student-centered feature of ER interest and motivate the learners to read for meaning, which eventually led to the improvement in their reading ability. It was also found that the learners felt more confident in their reading ability and learned to read for true enjoyment.

A review of the extant literature on ER shows that it may be an alternative way of learning and teaching English in general and second language reading in particular which can bring benefits in ESL/FL contexts in developing language ability and promoting positive attitudes. However, some of these empirical studies would be too demanding for teachers and students to be continued and developed beyond short-term research in Korean

schools. Several studies have treated ER as a regular class or extracurricular class in that teachers assigned reading materials and often accompanied specific lesson plans or post reading activities. In addition, most studies conducted ER with printed reading materials while only few studies utilized research-based and systematic reading programs as a tool for ER.

Such practice of ER at class level and use of printed reading materials may lead to a lack of commitment to ER in a Korean middle school or even in many L2 settings in despite of the research-proven values of ER. Stoller (2015) identified several challenges that may impede the implementation of ER as a curricular component—the need for plentiful resources, resistance from teachers who do not want changes, and limited class hours. Hence, the present study aims to design and incorporate a more feasible method for ER that eases the responsibilities of both teachers and students to induce Korean middle school English learners to experience enjoyable, pressure-free, and meaning-based reading. This study then examines the effects of this particular ER on learners' reading comprehension development and changes in reading attitudes. Further, it attempts to investigate the role of the participants' initial language proficiency in their ER experience. The attempt and results of this study are expected to contribute to the current empirical findings on ER research.

2.4.2 Previous Studies on Narrow Reading

While ER has received considerable attention, less attention has been paid to research on NR in L1 or ESL/FL settings. Though there is relatively a smaller body of research, these studies demonstrate the positive effects of NR on language learners' vocabulary growth (Min, 2008; Yoon, 2011) and

reading comprehension as well as attitudes toward reading and learning (Ahn, 2003; Cho et al., 2005; Choi, 2014; Kongpetch et al., 2009; Schmitt & Carter, 2000). As several studies (e.g. Baek, 2008; Gardner, 2008; Schmitt & Carter, 2000) found that reading materials under the same theme or authorship contain higher percentages of word repetitions, Yoon (2011) and Min (2008) attempted to integrate NR as a vocabulary instruction. Yoon (2011) used series books to elementary level learners for 13 weeks while Min (2008) carefully selected supplementary texts for intermediate-level secondary school students' NR throughout five weeks of study. The results of both studies displayed significant improvements from the beginning in terms of vocabulary uses, acquisition, and retention.

Another popular research area for NR is its effects on language learners' reading comprehension and reading attitudes. Ahn (2003) first examined the effects of NR on 4th grade elementary students' reading comprehension and reading interests. She also divided a total of 37 students into three proficiency levels in order to examine whether NR reduces the gap among the proficiency level groups. These students showed statistically significant changes in their reading interests and developments in reading ability after reading preselected Clifford series books for 16 hours. Moreover, it was found that as NR continues, the differences in reading ability among the various proficiency levels became less obvious. Later Kongpetch et al. (2009) applied NR to 56 university students in Thailand with high, intermediate, and low English proficiency using News stories of the same events. Eight passages from two long news stories were taken to the class, and the instructor assisted the students as they engaged in NR. This study collected the results of pre- and posttests, eight reading

comprehension tests, and interviews to investigate the effectiveness of NR on Thai college students' reading comprehension and motivation. They concluded that NR derives significant improvement in reading comprehension regardless of proficiency levels. Yet, further analyses of interviews revealed that NR seems to be a more motivational reading approach for the students with intermediate and low proficiency as students with high proficiency did not enjoy reading passages on the same topic for over six hours.

Most recently, Choi (2014) investigated the effects of NR through reading passages about animals on Korean secondary school English learners' general reading comprehension, specialized reading comprehension (i.e., comprehension questions about animals), and reading attitudes. In this study, a total of 62 students were divided evenly into control and experimental groups. Among 62 students who participated in extracurricular class for 12 weeks, the control group students engaged in intensive reading while the experimental group students engaged in NR using preselected texts about animals. Choi (2014) prepared pre-reading, during-reading, and post-reading activities to guide the students and check comprehension of the reading. After 12 weeks of extracurricular class, the students in both groups took a post-test while the experimental group students additionally responded to survey questions regarding reading attitudes. The results indicated the experimental group students' improvements in general reading comprehension and statistically significant improvements in specialized reading comprehension. Moreover, the survey results demonstrated the effects of NR on positively changing attitudes, interests, and confidences toward reading in English.

Considering previous studies on NR as an approach to teaching and learning of second language reading, implementation of NR is likely increase language learners' reading comprehension and attitudes, particularly those with comparably lower language proficiency. However, there is still the need for further research on both reading comprehension development and changes in reading attitudes as the studies by Ahn (2003) and Konpetch et al. (2009) are methodologically flawed due to the absence of a control group. Also, Choi's (2014) study did not find the statistically significant results on the students' general reading comprehension, which conflicts with other two studies. Further, these studies mostly neglect to provide individualized and enjoyable NR by pre-selecting reading materials and incorporating activities before or after reading. Hence, this study attempts to complement methodological flaws of the previous study by providing a large collection of e-texts for the students to choose from and comparing the results to the control and ER groups. The results of this study are expected not only to build upon the previous studies but also to contribute to the mixed findings on NR.

Previous studies related to ER and NR investigated and demonstrated the positive effects of these reading approaches on multiple cognitive and attitudinal aspects. Yet, to eliminate the aforementioned challenges for ER and NR, a more systematic and feasible method still seems necessary to be designed and examined. Further, this study recognized the need to compare ER and NR in order to provide evidence-based explanation regarding the concern with NR and suggest them as possible reading approaches to choose based on learners' individual preferences and the education goals of teaching and learning L2 reading.

CHAPTER 3.

METHODOLOGY

This chapter describes the research design and methodology used to investigate the research questions of the present study. The research framework in terms of an overview of the research design and the participants is first discussed respectively in Sections 3.1 and 3.2. Then Section 3.3 provides detailed information on the research instruments for the extracurricular reading and measurements. The subsequent Sections 3.4 and 3.5 present the specific data collection procedure and an overview of methods for data analysis, respectively. Finally, ethical considerations in the present study are clarified in Section 3.6.

3.1 Research Design

A quasi-experimental nonequivalent control group design is used to investigate the role of ER and NR in Korean middle school learners' L2 reading comprehension and attitude changes. The complete processes for the present study lasted for six months, from May, 2014 to February, 2015 which includes research planning procedures (i.e., developing research ideas, reviewing extant literature, recruiting a research site and participants, establishing an appropriate environment, and applying for an IRB waiver) and research implementation procedures (i.e., collecting and analyzing the data). Data was collected for about 14 weeks from the fourth week of September to the fifth week of December, 2014.

The participants of the study were evenly distributed into three groups, one control group and two experiment groups. All participants followed the school's regular English curriculum through three 45-minute English classes per week. Additionally, the participants in two experiment groups each engaged in ER and NR using online reading programs. The participants' L2 English reading comprehension and cognitive and affective domains of L2 reading attitudes were measured at the beginning and end of the study in order to examine any changes. The collected quantitative data for the current study was analyzed using a series of proper statistical analyses. The qualitative data collected from open-ended survey questions to understand how the participants evaluate extensive and narrow reading were analyzed using content analysis.

3.2 Participants

The participants in this quasi-experimental study were three groups of 30 female eighth grade students attending the same girls' middle school located in Seoul, South Korea. This school is a laboratory school which provides broader learning opportunities for its students, such as diverse extracurricular activities compared to other middle schools in the same school district. The national standardized achievement test administered by the Ministry of Education in November, 2014 also revealed that the school has a high percentage of students with high and intermediate English proficiency levels; 73.7% of 224 students have above average English proficiency and 25.4% of them have average English proficiency while only approximately 20 of 224 students (0.9%) are underachieving English

learners.¹ English learning at this middle school, as is typical of Korean middle school EFL setting, happens through three class periods (45 minutes per class period) of classroom instruction per week. Two class periods primarily focus on reading skills and explicit grammar lessons with a Korean English teacher when a native English teacher and the Korean English teacher co-teach while one class period concentrating on speaking skill. This middle school in particular identifies the students' English proficiency into three levels (i.e., high, intermediate, low) based on the students' previous year average test scores and divides them into three level-differentiated English classes to provide adapted lessons.

For the present study, a total of 90 students at the age range of 14~15 years old were drawn from six intact level-differentiated English classes taught by two English teachers. All participants with more than 6-months long prior experiences abroad and those who did not complete any measures were excluded. As a result, 42 students from two high-level English classes and 48 students from four intermediate- and low-level English classes were selected and evenly divided to include 14 high proficiency and 16 lower proficiency students for each three research groups. The homogeneity of the groups was examined using the pre-test in which its results will be presented in Chapter 4. The general information about the participants and research groups is presented in Table 3.1.

¹ The Ministry of Education (2014). Retrieved from Hakgyo Alrimi (School Info) www.schoolinfo.go.kr.

Table 3.1
Groups and Participants Information

		Extensive (ER)	Narrow (NR)	Control
Number of Students	High Proficiency	14	14	14
	Lower Proficiency	16	16	16
	Total	30	30	30
Treatments	In-Class	traditional textbook-based lessons		
	Out-of-Class	reading about broad topics	reading about a single topic	none

The students in the three groups all participated in the school’s regular English classes from two English teachers. These two English teachers adjusted their lessons by unifying their teaching syllabus and regularly discussing about teaching materials and classroom activities in order to minimize any instructional influences. In addition to the regular English classes at the school, the students in ER and NR groups read L2 texts using online reading programs during the lunch time and out of school independently. The participants in ER group read large amount of comprehensible L2 texts about diverse topics when those in NR group read large amount of comprehensible L2 texts in only one topic of their choice.

Any of the students might have been engaged in extra reading outside of the scope of this study, or could have received additional English lessons privately; these factors could not be controlled during the course of this study. They were, however, asked to provide the further information about out-of-school language learning experiences at the beginning and end of the study. Collected information revealed that there were no changes in all participants’

frequencies and types of out-of-school language learning experiences during the course of the study. Hence, this lack of a change in after school educational activities leaves the addition of NR and ER to the participants' curriculum as the main determinant of changes in the participants' L2 reading comprehension and reading attitudes.

3.3 Instruments

In this section, research instruments used in the present study are illustrated in detail. Parts 3.3.1 and 3.3.2 each describe survey questionnaires and reading comprehension tests which are used as the assessment tools in this study. Then the two online reading programs employed by this study as the NR and ER tools are demonstrated.

3.3.1 Survey Questionnaires

Two survey questionnaires were used at the beginning and the end of the study to collect the participants' background information regarding English learning experiences and to determine ER and NR groups' L2 reading attitudes (see Appendix C and D). Reading attitudes comprise a complicated theoretical construct which can be defined in various ways (Yamashita, 2004). In effort to specify reading attitudes, Mizokawa and Krening (2000) suggested three domains of reading attitudes: affect, behavior, and cognition. Furthermore, by reviewing extensive literature on reading attitudes, Reeves (2002) also confirmed that research in this field largely agrees on these three components of reading attitudes. In the present

study, survey questionnaires were design to explore two domains of reading attitudes, affect and cognition. The behavioral domain was not measured using survey questionnaires as it is often difficult to operationalize in EFL context (refer to Yamashita, 2004). The affective domain is related to learners' feelings and emotions toward reading, referring to their preference of reading and for a certain kind of reading (see Figure 1). Another domain, the cognitive domain is referring to learners' personal and evaluative beliefs toward reading (see Figure 2).

나는 다른 과목에 비해 영어를 좋아한다.					
나는 영어읽기가 재미있다고 생각한다.					
나는 영어로 쓰인 글이나 책을 읽고 싶다.					
나는 영어읽기 시간이 많았으면 좋겠다.					

Figure 1 Example Survey Questions for Affective Domain

나는 영어 읽기가 영어 실력 향상에 도움이 된다고 생각한다.					
나는 영어 수업 시간에 읽는 글을 자신 있게 읽을 수 있다.					
나는 영어로 쓰인 글이나 책을 읽은 후 내용을 잘 이해한다.					
나는 수업시간외에 영어 읽기를 해보고 싶다.					
나는 내가 관심 있는 주제의 글을 계속 읽어보고 싶다.					

Figure 2 Example Survey Questions for Cognitive Domain

The survey questionnaires consisted of questions modified from survey questions used in Jung (2014) and Choi (2014). The survey questionnaires

contained two parts: questions about students' background information and reading attitudes. Sixteen items including two open-ended questions were used to ask the students about the length, methods, and frequencies of getting additional private English lessons if they received them outside of the school and about their reading experiences of reading Korean and English written materials. The second part contained four affective domain questions and five cognitive domain questions to assess the participants' L2 reading attitudes using the format of 5-point Likert scale which ranges from 'strongly agree' (5 points) to 'strongly disagreed' (1 point).

For the post-survey questionnaire, ER and NR group received the survey questionnaire with additional questions to evaluate extracurricular reading and the type of extracurricular reading they engaged in. Hence, in addition to a total of nine 5-point Likert scale survey items, two open-ended questions about uniqueness and influences of the extracurricular reading were included to understand how extensive and narrow reading as means of extracurricular reading were received by the participants. The control group also received the survey questionnaires but with only the first section to collect the background information of the students.

With regards to reliability, the Cronbach's α values confirmed the reliability of the pre-survey questionnaire, .84 for affective domain and .84 for cognitive domain. The post-survey questionnaire has high reliability as Cronbach's α values of the two domains were .94 and .87 each based on the results. In other words, these survey questionnaires seem to be consistently measuring the same aspects (i.e, affective and cognitive domains of attitudes).

3.3.2 Reading Comprehension Tests

Two reading comprehension tests were administered before and after the fourteen weeks of extracurricular reading (see Appendix A and B). The reading comprehension tests were developed by MetaMetrics Inc., a private education measurement and research organization located in the U.S. MetaMetrics specifically designed the tests for the study to measure the English reading comprehension ability of Korean 8th grade EFL students with no living abroad experience. Two test forms, the pre-test and the post-test, were developed and administered in September 2014 and in December 2014, respectively.

The tests were designed to measure reading comprehension ability to understand literary and expository texts from various contents areas. Both forms of the reading comprehension tests consisted of 30 multiple-choice questions asking the participants to read the paragraph and then answer a sentence completion task with four answer choices (see Figure 3).

<p>1. The airplane was big. Jane watched it from the airport. It moved really fast. She watched its wheels lift off the ground. She watched it take off. Jane opened her eyes wide. It looked too big to fly in the air. How did it work? She ran over to her dad. Maybe he could tell her.</p> <p>Jane was _____.</p>	<p>A. ready B. old C. helpful D. surprised</p>
---	--

Figure 3 Sample Test Passage and Question

The tests included the evenly distributed literary and informational paragraphs and the questions for multiple essential reading comprehension

skills such as making generalizations and comparisons, referring to the details in the passage, and drawing conclusions. As the correct answer was not directly stated in the passage, the participants must have comprehended the passage to determine the correct answer for the question. Further, the four answer options were corresponded with the complexity of the passage so all options seem semantically and syntactically appropriate completions of the sentence while only one option was unambiguously the best answer when considering the context of the paragraph. This format was specifically chosen as it was “well-suited for testing a student’s ability to evaluate” and also instructionally useful (Haladyna, 1994, p. 62).

The participants spent a 45 minutes class period to complete the 30 reading comprehension test questions. The type, length, and difficulty of the reading paragraphs were comparable across the pre- and post-test so the tests can measure the participants’ development of reading comprehension ability. The passage difficulty means were based on those of Korean 8th grade’s authorized English textbook and displayed in Lexile measures. The reading comprehension tests were scored with one point for each corrected answer, and the scores were calculated into a Lexile measure for an individual participant. The values of Cronbach’s α confirming the internal reliability of the reading comprehension tests were .88 for the pre-test and .84 for the post-test based on the results. These values indicate the high level of internal consistency among items in the reading comprehension tests. Hence, the reading comprehension tests seem reliable in measuring the participant’s reading comprehension ability development for the present study. Table 3.2 below illustrates a summary of the pre- and post-test specifications.

Table 3.2
Specifications of the Reading Comprehension Tests

	Pre-Test	Post-Test
Number of Items	30	30
Item Type	paragraph literary & informational content	paragraph literary & informational content
Word Count Range (per paragraph)	35 ~ 109	46 ~ 94
Difficulty Mean (per paragraph, in Lexile)	549	545
Difficulty SD (per paragraph, in Lexile)	236	241
Difficulty Range (per paragraph, in Lexile)	110 ~ 1010	120 ~ 1030

3.3.3 Online Reading Programs

Both ER and NR utilize a variety of learner-gearred reading materials that readers choose independently. It is, however, oftentimes challenging for schools in EFL contexts to have large collections of graded readers to satisfy every students' individual reading levels, interests, and especially "freedom to stop reading material that fails to interest them" (Day & Bamford, 1998, p. 7). Given the importance of students' choices in empowering and engaging them more in reading, this study employed online reading programs as a potential solution in order to provide unlimited authentic e-books and e-sources for ER and NR groups. With the recent popularity of computer assisted language learning (CALL), several studies found that e-books are beneficial to young learners, particularly to those with reading difficulties (Chera & Wood, 2003) in improving reading comprehension (Doty, Popplewell & Byers, 2001), encouraging unmotivated students to

read (Adam & Wild, 1997), and changing students reading attitudes (Sun, 2003; Arnold, 2009). Moreover, as ER and NR groups engaged in reading out of class, online reading programs enable them to read anytime and anywhere they want to with the internet access. Thus, two online reading programs were selected for the study. The reading materials and applications EdSphere (www.edsphere.com) and Raz-Kids (www.raz-kids.com) published by MetaMetrics (www.metametricsinc.com) and Learning A to Z (www.learninga-z.com) were used and described below.

EdSphere is a web-based reading program in which its reading materials about diverse and subject-relevant topics are from an extensive database of approximately 25,000 EBSCO-provided articles, 1,100 online English newspaper articles of 25 English-speaking countries, 1,200 featured articles from Wikipedia, and many classic texts (see Figure 4). EdSphere encompasses the Lexile[®] Framework for Reading² to compute Lexile measure for a text, found to contain the reading materials ranging from 300 to more than 1300 Lexile. Besides the large selections of authentic reading materials, EdSphere also monitors each reader's reading comprehension constantly using cloze items within a text, provides immediate feedback on reading performance (i.e., amount of words read, time spent on reading, and percent correct), and updates the estimate of reading ability after each article read based on the answers to the cloze items to provide text within each reader's reading ability³ and interest. A full-access to EdSphere was

² The Lexile[®] Framework for Reading is a tool to determine the reading level of written material in a Lexile measure so readers can be matched with materials at their own level.

³ Each participant's reading comprehension ability was reported in a Lexile measure and "readable" texts were provided. This means, for example, if a participant's reading

provided to enable searching to read about a specific topic or a random topic of authentic reading materials within the students' reading competence.

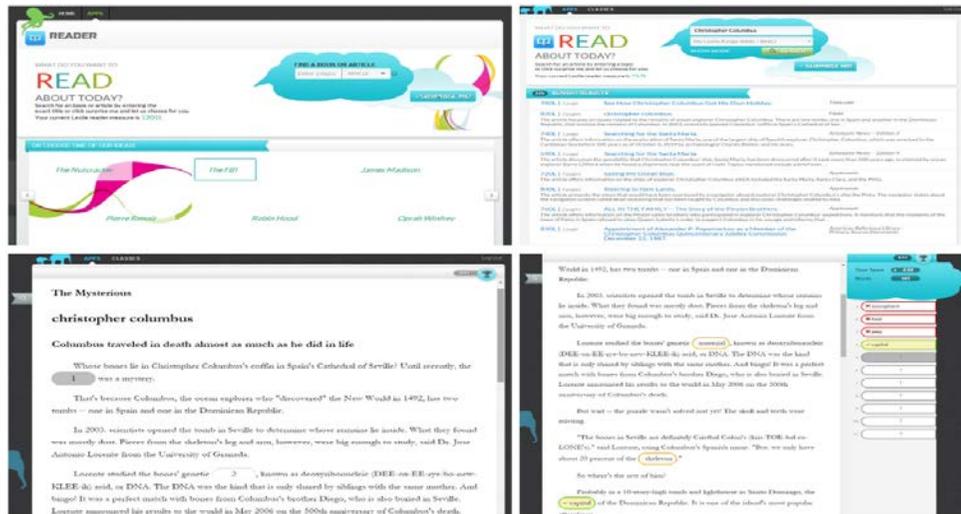


Figure 4 Screenshots of EdSphere Users' Interface

Another treatment tool used in this study is online reading program called Raz-Kids. Raz-Kids is an online-based reading program which concentrates on improving its readers' basic reading ability through fictional and non-fictional reading materials covering a wide range of subject matters (see Figure 5). Raz-Kids comprises more than 1300 interactive e-books and

comprehension ability has been measured at 300, the participant is expected to read a book measured at 300 with 75-percent comprehension. When a text measure is 250L above the participant's measure, comprehension is predicted to decrease to 50-percent; conversely, when a text measure is 250 below the participant's Lexile measure, comprehension is predicted to increase to 90-percent. Hence the "readable" texts are the texts within the participant's Lexile range, 50L above to 100 below the participant's Lexile measure which the participant should comprehend enough to understand while still being challenged enough to maintain interest and learning.

categorizes them into twenty-seven reading levels from Level AA to Level Z which correlate with texts' Lexile measures ranging from BR⁴ to 980. Similar to EdSphere, Raz-Kids monitors each reader's reading comprehension through after-reading quizzes and provides immediate feedback on reading performance. Raz-Kids in particular notifies readers who scored inadequately (i.e., less than 70-percent comprehension for Level AA to Level J and less than 80-percent comprehension for Level K and above) on the comprehension quiz and encourages them to read and complete the quiz again. Full-access to Raz-Kids was provided for readings about a specific topic or various topics of authentic e-books within the students' reading competence.



Figure 5 Screenshots of Raz-Kids Users' Interface

Both EdSphere and Raz-Kids are designed properly for ER and NR as

⁴ BR refers to 'Beginning Reader' in which a text or a reader's Lexile measure is in the minus range, lower than 0. In this study, while the participants' reading comprehension ability in the minus Lexile range are specified for research purpose, Lexile measure in the minus range is usually not specified, only described as BR.

they enable the students to choose from a large collection of level-specific L2 texts and to read independently with their employed feedback systems. Thus, both programs help students to read not only what they are interested in reading but also at their independent reading level to become proficient readers. Two online reading programs were used in the current study instead of one to provide a more suitable reading environment targeting each student's individual reading level and needs. Among the students in ER and NR groups, those with high English proficiency level used EdSphere while those with lower English proficiency level utilized Raz-Kids.

Edsphere was selected specifically for the high proficiency group as it contains a variety of authentic reading materials on a broad range of topics that matched with their pre-test results. ER and NR groups' high proficiency students scored 468.31 and 496.57 each on the pretest when the minimum Lexiles for the reading materials in EdSphere is 300 (ER minimum=289.6, median=449.8, maximum=833.2; NR minimum=257.2, median=533.5, maximum=667.6). Additionally, the embedded reading comprehension assessment followed by immediate feedback and updates on selection of appropriate reading materials within EdSphere was considered a high volume reading resource, enabling study participants to read extensively and independently out-of-class about one or many subject matters. Raz-Kids, on the other hands, was chosen specifically for ER and NR's lower proficiency students as Raz-Kids' reading materials level difficulties, which ranged from BR to 980 Lexiles, would match the students' pretest results more appropriately than the reading materials from EdSphere. The average Lexile scores for ER and NR's lower proficiency students were 36.48 and -6.97 each

and the maximum Lexile scores for each group were below 300 which makes EdSphere's reading materials too difficult to read for ER and NR's lower proficiency students (ER minimum=-511, median=152.8, maximum=289.6; NR minimum=-511, median=115, maximum=257.2). Moreover, Raz-Kids was a more adapted online reading program for the students with lower English proficiency when in fact its animated features (i.e., visual and audio supports) could motivate and assist comparably less-advanced students to engage in reading on a single or various themes (Grimshaw, 2007).

3.4 Data Collection

The study was carried on for six months while the actual practice of ER and NR lasted for about 14 weeks. The students' English reading comprehension ability and survey data were collected right before and after ER and NR segments of study, on the second week of September and on the fifth week of December, 2014. The data collection procedures for this study had three phases: setting, implementation, and completion.

As the students in ER and NR groups needed to read English-written texts in their individual reading competence independently, the first phase primarily focused on creating an easily accessible reading environment and matching the reading materials on their reading level and interests. To provide a platform where the students could read independently whenever and wherever they want, two user-friendly online reading programs that provide the extensive collections of texts, monitor reading progress, and provide feedback were selected. Since the present study chose online reading programs as a means of enabling students' reading practices, the school's computer lab and 30 tablet PCs were made

available to the students during the lunch time and after school under the supervision for some students who could not access the internet or electronic devices outside of the school. While setting the reading environment, the students took a pre-English reading comprehension test and pre-survey on L2 English reading attitudes. Based on the test and survey results, the students in each proficiency groups gained the full access to a more suitable online reading program. Once the reading environment was settled, the researcher visited the school and explained the study to the students in ER and NR groups in order to motivate them to successfully engage in positive reading practices (see Figure 6). After explaining the study's purposes and procedures, detailed information was presented to the participants regarding the settled reading environment such as demonstration and guidelines on using the online reading programs and introduction to available resources for electronic devices respectively (see Figure 7 and 8).

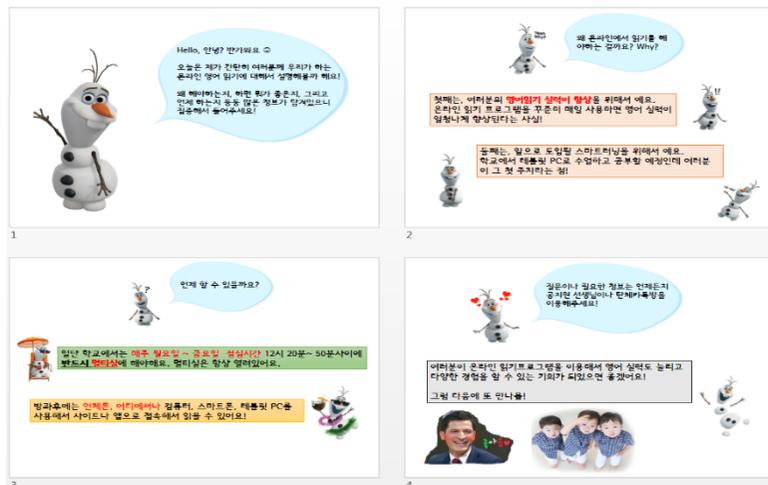


Figure 6 Explanations on the Study Purposes and Procedures

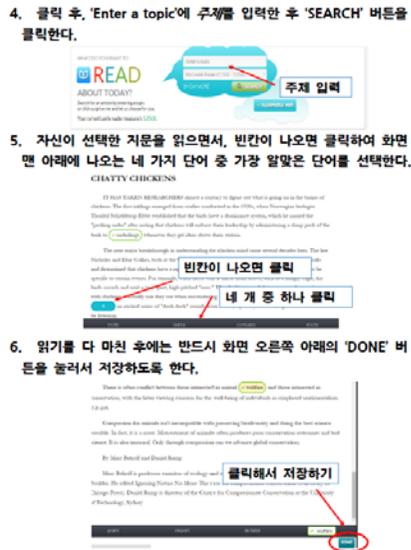
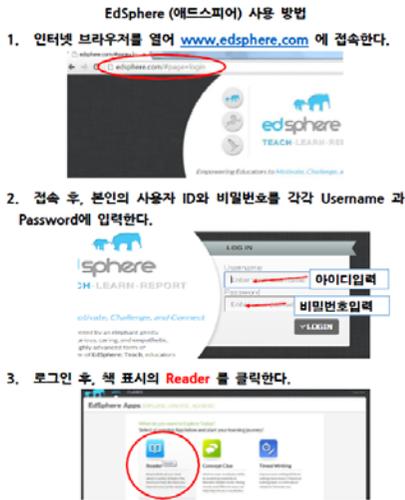


Figure 7 User's EdSphere Guidelines



Figure 8 User's Raz-Kids Guidelines

In the second stage of data collection, the students in ER and NR groups engaged in independent reading out-of-class using online reading programs for 14 weeks. After the students were introduced to the reading programs, the researcher and on-site teachers assist the ER and NR groups' students to select reading topics or themes that they are interested in reading. More specifically, the students in the ER group were asked to write down as many reading topics as possible while those in the NR group were asked to write down the three most interesting reading topics for the future reading. The researcher assisted in choosing reading topics and provided the students with numbers of reading topics that the students can also choose from, because most of them did not have previous experience of choosing own reading topics. Additionally, the students in the NR group were advised to choose rather a broad reading topic or to read series books among their three topics so that the programs can offer enough reading materials during 14 weeks of independent reading.

The students with high proficiency typed in a keyword for their reading topic(s) and chose the reading materials based on the information (i.e., summary, number of words, and difficulty). The students with lower proficiency clicked 'bookroom' where they can explore and choose to read about various topics or clicked 'reading assignment' to read about the previously selected books of their chosen reading topic by the researcher. As results, the students read about topics such as future jobs, celebrities, South Korea, animals, traveling, movies, high school, and different countries. ER and NR groups read using silent reading or reading aloud methods. The reading comprehension checks monitored and supported the students to progress their own individual reading activity.

During this stage, the researcher and on-site teacher facilitated the actual reading practice in several ways. First, even though reading itself is reward, to motivate the students to get used to the concept of independent ER and NR and to read more regularly in the schedule of 14 weeks, this research adopted the suggestion of establishing and giving extra rewards to them, as in Hitosugi and Day (2004). Further, during the lunchtime and afterschool when the students can freely stop by the computer lab and use electronic devices to read, either the researcher or on-site teachers supervised and guided them to read as the role model of a reader. As the resulted data of this stage, the students' reading progresses such as their reading lists and the amount of words read were collected.

The post-measures, reading comprehension test and survey questionnaire, were conducted to all the participants immediately following the 14 weeks of the ER and NR. Upon completion of the measurement tasks, results were collected in this last completion stage. The researcher and teachers finalized the experiment at the school, and the researcher analyzed the collected data.

3.5 Data Analysis

The data of 90 participants' pre-measures and post-measures results collected from the three data collection stages were analyzed in an effort to investigate the effectiveness of the ER and NR on reading comprehension and attitudes of Korean middle school English learners at different proficiency levels. In order to explore the effects of the ER and NR on the participating students' L2 reading comprehension, statistical analyses of the data (i.e., reading comprehension Lexile scores) were conducted. To

understand the differences among the groups and determine the variety of effects of different reading approaches more precisely, a series of analyses of covariance (ANCOVA) was conducted. Using ANCOVAs, the present study examined differences in post-reading comprehension Lexile scores among the groups with pre-reading comprehension Lexile scores as covariates. Further to determine if there were significant differences in proficiency level groups' posttest, Lexile scores were analyzed and compared using ANCOVAs.

To address the second research question regarding the impact of ER and NR on the Korean middle school English learners' L2 reading attitudes, the students' responses in 5-point Likert scale to pre- and post-survey questionnaires were collected and analyzed using a series of repeated-measure T-test. The students in ER and NR groups' self-reflection responses on two open-ended questions were categorized and presented qualitatively. Other supplementary data such as the reading amount and responses to the background questionnaire were used to provide a more insightful analysis on the results. All analyses were conducted using the IBM Statistical Package for the Social Science (SPSS) version 21. All the data set met the conditions for using the parametric analysis and the alpha level was set at 0.5.

3.6 Ethical Considerations

Upon the ethical guidelines issued by the university's ethics committee, the researcher completed training on social and behavioral research provided by the Collaborative Institutional Training Initiative (CITI) Korea. Though this study received an IRB waiver (No. E1409/001-009), the participants and

their parents received copies of parental permission form and written informed consent form. The signed permission and consent were obtained for all participants prior to the study. The participants' privacy remained confidential throughout the study as they were assigned an identification number. The participants and their parents were assured that participating or not participating in the present study would not affect their grade in any ways and that they have right to withdraw from the study at any time without giving a reason. The participants were additionally informed about the aim and nature of the study before taking pre-measures, and requests were made for them to participate in at least pre- and post-measure and ER or NR if necessary.

CHAPTER 4.

RESULTS AND DISCUSSION

This chapter presents the results of the study and discusses the findings based on the research questions posed in Chapter 2. Section 4.1 addresses how ER and NR affects reading comprehension of Korean middle school English learners at different proficiency levels. In Section 4.2, the findings regarding the effects of ER and NR on Korean middle school English learners at different proficiency levels in terms of their reading attitudes are presented and discussed.

4.1 Effects on Reading Comprehension

Before the students in ER and NR groups received any instruction, a pre-reading comprehension test (hereinafter pretest) was conducted with all participating students in the study to determine their level of reading comprehension. Also, pre-test results provided a helpful information in determining the growths of the participants when compared with a post-reading comprehension test (hereinafter posttest). Since the participants' pretest scores were assumed to have a potential influence on the participants' posttest scores, Pearson's correlation between the two tests was analyzed, showing a positive Pearson Product-Moment correlation of 0.821 for the test. This value is quite high, which suggested a fairly strong relationship between the participants' pre- and posttest results. As the value of the Pearson correlation confirmed the strong relationship between the pre- and posttest results, a series of ANCOVA was used to eliminate the bias of a variable (i.e., pretest results) that confounds the results.

The students' scores on pre- and posttest were collected, calculated into the Lexile scores⁵ and analyzed to be compared among treatment groups and for each proficiency level groups.

4.1.1 Reading Comprehension of ER and NR Groups

This study first aimed to examine the effects of ER and NR on reading comprehension using the results of the students' reading performances. Thus, the means and standard deviations of reading comprehension tests as well as the number of words read by the participants were first examined. Table 4.1 below summarizes descriptive statistics of control and experiment groups.

Table 4.1
Descriptive Statistics of the Research Groups

	Pretest		Posttest		Words Read			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Min.	<i>M</i>	<i>SD</i>	Max.
ER (N=30)	238	296.73	360.03	234.83	1497	9571	9482	40677
NR (N=30)	236.83	309.99	377.23	227.59	1110	10168	9156	41486
Control (N=30)	251.69	243.41	258.47	238.03	-	-	-	-

Notes. The Lexile scores calculated from the number of corrected answers in the pre- and post-reading comprehension tests range from -511 to 1225 and -514 to 1228, respectively. On average, each corrected answer worth for 58 Lexile, while Lexile for each corrected answer ranges from 32 to 143.

⁵ The Lexiles (or Lexile scores) are a research-proven, scientific measurement for reading ability and text difficulty developed by MetaMetrics. The use of the Lexiles has been investigated to confirm its reliability and validity (Burdick & Lennon, 2004; Smith, 2004). Lexile score is a valuable indication of a reader's reading ability and a text's difficulty measured by semantic difficulty (i.e., the frequency of words) and syntactic complexity (i.e., the length of sentences in text). Hence, higher Lexile scores indicate longer sentence lengths and words with lower frequency.

The table shows that the students in ER and NR groups read on average of 9571 and 10168 words during the 14-weeks of reading practice, respectively. As the results of such reading practice, the mean Lexile scores from ER and NR groups' posttest are higher than that from the control group's posttest. More specifically, the students in ER group on average scored 360.03 Lexiles and those in NR group scored 377.23 Lexiles on average, which each increased 122.03 Lexiles and 140.4 Lexiles from the pretest scores. The mean scores of control group's posttest, however, on increased 6.78 Lexiles from the pretest by scoring 258.47 Lexiles on average. Of all, NR group scored the highest on the posttest among the three groups. A close look at Table 4.1 display that both control and ER groups initially had slightly higher mean Lexile scores. However, at the end of the study, NR group's mean Lexile scores from the posttest surpassed those of control and ER groups by 118.76 and 17.2 Lexiles each.

These results illustrate that Korean middle school English learners are capable of reading an average of 10,168 words when they are provided with an access to comprehensible and authentic L2 texts outside of school for 14 weeks. Additionally when they engage in ER and NR of such intensity, their L2 reading comprehension can increase by 40 and 57 percentages each (i.e., 95.17 and 115.65 Lexile scores). The descriptive statistics above imply that the students in ER and NR groups, particularly in NR group made greater progress in their L2 reading comprehension after taking part in 14 week-long reading practice.

To examine whether the differences in the posttest mean scores among the treatment groups are statistically significant, an ANCOVA was chosen as a statistical analysis for this study. Prior to conducting the ANCOVA, regression

slopes of the covariate (i.e., pretest results) were plotted against the posttest results for each treatment groups to check homogeneity of regression slope across the treatments. As the ANCOVA assumes homogeneity of regression slopes, the covariate can be used in the subsequent ANCOVA only when the regression slopes for the condition are similar. If the regression slopes for the conditions demonstrate heterogeneity in the slopes, dependent variable likely vary as a function of the covariate and the ANCOVA results will not represent all condition; hence, the findings may not be meaningful.

Figure 9 shows scatterplots that display the relationship between the pretest results (i.e., the covariate) and the outcome (i.e., the posttest results) for each of the three experiment conditions.

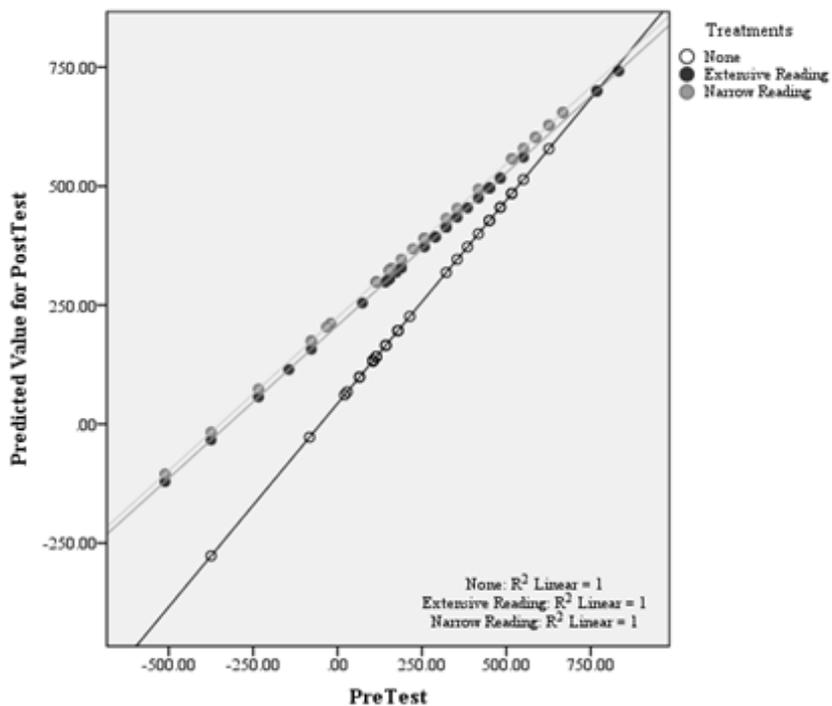


Figure 9 Regression Slopes of Posttest and Pretest for Each Treatments

As seen in Figure 9, there is a positive relationship between the pre- and posttest results in all conditions (i.e., control, ER, and NR). The regression plots for the posttest and the covariate showed homogeneity across the conditions which indicate that the covariate can be used in the ANCOVA. Hence, the ANCOVA was conducted with the pretest results as the covariate. Table 4.2 demonstrates the results of ANCOVA with the students' Lexile scores on the posttest as the dependent variable.

Table 4.2

Results of ANCOVA on Treatment Groups' Reading Comprehension

Source	<i>df</i>	<i>F</i>	<i>p</i>
Pretest Scores (Covariate)	1	226.00	.000
Reading Treatments (Main Effect)	2	10.15	.000
Reading Treatment * Pretest Scores (Interaction Effects)	2	1.91	.155

Table 4.3 reveals that there was a statistically significant main effect of reading treatments (i.e., ER and NR) on the participants' reading comprehension measured by posttest after controlling for the effect of the students' pretest scores, ($F(2,118)=10.15$, $p<.00$). Therefore, this result suggests that over 14 weeks, the changes in Lexile scores from reading comprehension test indeed differ significantly between the groups with and without additional ER or NR practice out of school. The ANCOVA results also revealed that the covariate, the participants' pretest scores, was significantly related to the participants' posttest, $F(1,118)=226.00$, $p<.00$; the effect of covariate is that as the students' pretest scores increase, so do the

students' posttest scores as shown by the slopes of the regression line.

Since the main effect for ER and NR is statistically significant, Fisher's Least Significant Difference (LSD) test was used to interpret the main effect. The results illustrate that there is a statistically significant difference between the control group and both the ER ($p=.001$) and NR ($p=.000$) groups. However, the ER and NR groups did not significantly differ ($p=.574$).

4.1.2 Reading Comprehension of Proficiency Groups

This study also aimed to investigate whether the students between the proficiency groups demonstrated different developments in reading comprehension. The following Table 4.3 and 4.4 summarize the descriptive statistics of high proficiency group and lower proficiency group, respectively.

Table 4.3
Descriptive Statistics of High Proficiency Group

Condition	High Proficiency							
	Pretest		Posttest		Min.	Words Read		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	Max.
Control (N=16)	453.53	166.79	457.79	163.46	-	-	-	-
ER (N=16)	468.31	159.00	501.50	224.52	1497	8433	9820	31977
NR (N=16)	496.60	147.69	565.36	151.13	1110	9485	9749	38715

Notes. Words Read indicates the number of words the participants read on average during 14 weeks of extracurricular reading; '-' shows that the participants did not engage in extracurricular reading.

Table 4.4
Descriptive Statistics of Lower Proficiency Group

Condition	Lower Proficiency							
	Pretest		Posttest		Words Read			Max.
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Min.	<i>M</i>	<i>SD</i>	
Control (N=14)	75.09	138.38	84.06	129.85	-	-	-	-
ER (N=14)	36.48	235.57	223.19	156.23	1897	10566	9960	40677
NR (N=14)	9.54	220.88	212.63	135.70	1901	10767	9467	41496

Notes. Words Read indicates the number of words the participants read on average during 14 weeks of extracurricular reading; ‘-’ shows that the participants did not engage in extracurricular reading.

Table 4.3 above reveals that the high proficiency students in ER group read 8433 on average while those in NR group read 9485 words on average. The mean Lexile scores of high proficiency students from ER and NR groups’ posttest are higher than that from the control group’s posttest. When comparing high proficiency students’ pre- and post-test scores, the control group only increased 4.26 Lexiles on average while the students in ER and NR groups increased 33.19 Lexiles and 68.76 Lexiles on average, respectively. Among all high proficiency students, the students in NR group read the most on average and improved their average reading comprehension scores more than other two groups.

Concerning the lower proficiency group, Table 4.4 presents that the lower proficiency students in ER and NR groups each read 10566 and 10767 words on average. The results resemble that of the high proficiency group while the mean differences of ER and NR groups are greater—the mean Lexile scores from ER and NR groups’ posttest are higher than that from the

control group's posttest when NR group improved and scored the most of all. Remarkably, a careful look at Table 4.4 shows that the control group and NR group each initially had the highest and the lowest mean Lexile scores for the pretest. However, by the end of the study, their position reversed as the control group's mean Lexile scores increased slightly when NR group's mean Lexile scores for the posttest surpassed those of control and ER group. This change can be noticed in some of students' improvements in reading comprehension. For example, a student from ER lower proficiency group who read approximately 21,000 words surpassed the averages of the lower proficiency groups' posttest and even the mean posttest score of control and ER high proficiency group by gaining 359 Lexiles afterward beginning from 142 Lexiles to 512 Lexiles. Moreover, a student in NR lower proficiency group who read about 23,000 words by the end of the study reached nearly at the average pretest score of high proficiency control group with gaining 288.2 Lexiles more than the pretest in which she scored .152.8 Lexiles.

In addition to the two tables that demonstrate the descriptive statistics in numbers, Figure 10 illustrates each group's mean pre and posttest scores and average number of words read to provide a visual aid to understand and compare the results between two proficiency groups.

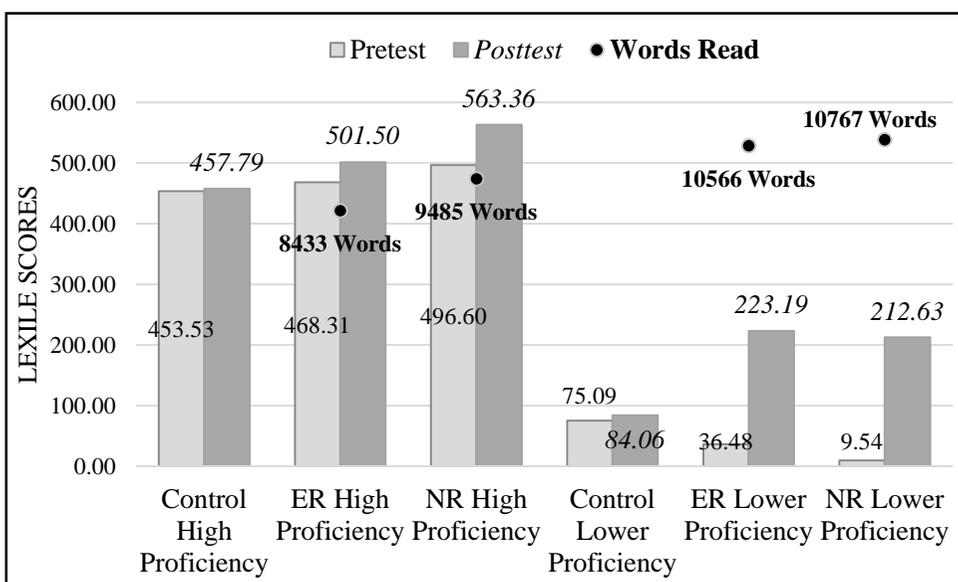
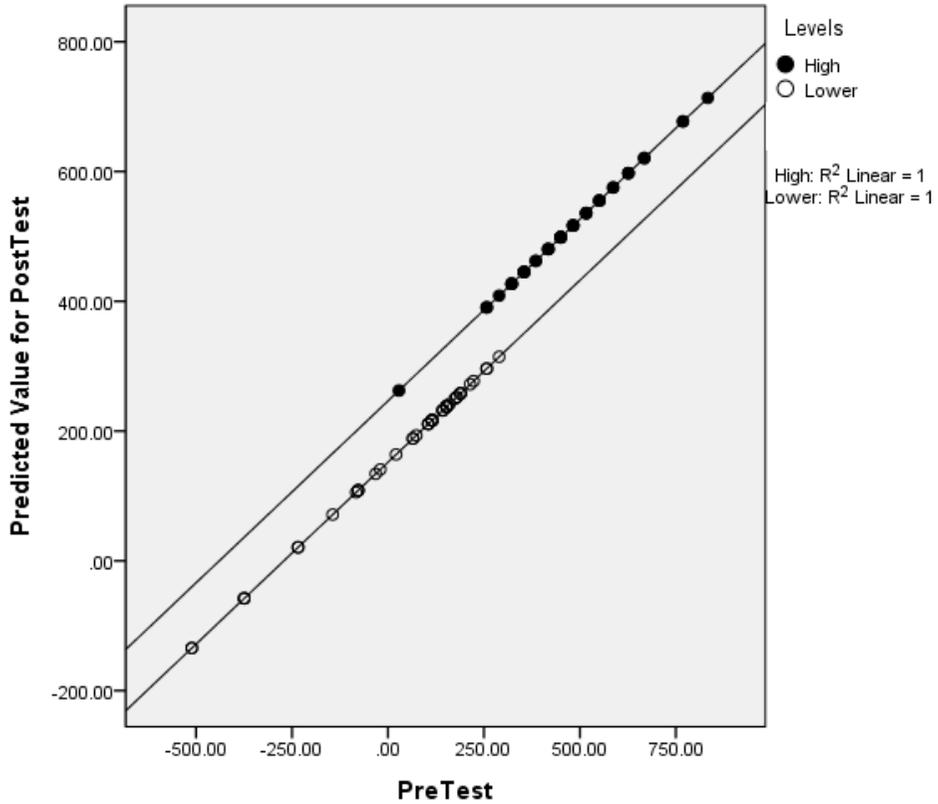


Figure 10 Plots for Average Test Scores and Words Read Per Group

The Figure 10 indicates that the students in lower proficiency group read more words on average (i.e., 10667 words) than those in high proficiency group (i.e., 8959 words). Between the proficiency groups, it is clear that the increase in lower proficiency groups' mean Lexile scores for posttest are greater than high proficiency group's the mean Lexile scores differences from pretest to posttest. Within each proficiency group, the students in NR group read slightly more and scored higher on average than those in other two groups. The descriptive statistics above imply that the students at different proficiency levels, particularly low proficiency students in NR group made greater progress in their L2 reading comprehension after taking part in 14 week-long reading practice.

To examine whether the differences in the posttest mean scores between the proficiency groups are statistically significant, an ANCOVA was

conducted with the pretest Lexile scores as the covariate. Prior to conducting the ANCOVA, the assumption of homogeneity of regression slopes was tested. The regression plots for the posttest and the covariate showed homogeneity across all the proficiency level conditions (see Figure 11). Thus, the participants' pretest scores were used in the ANCOVA.



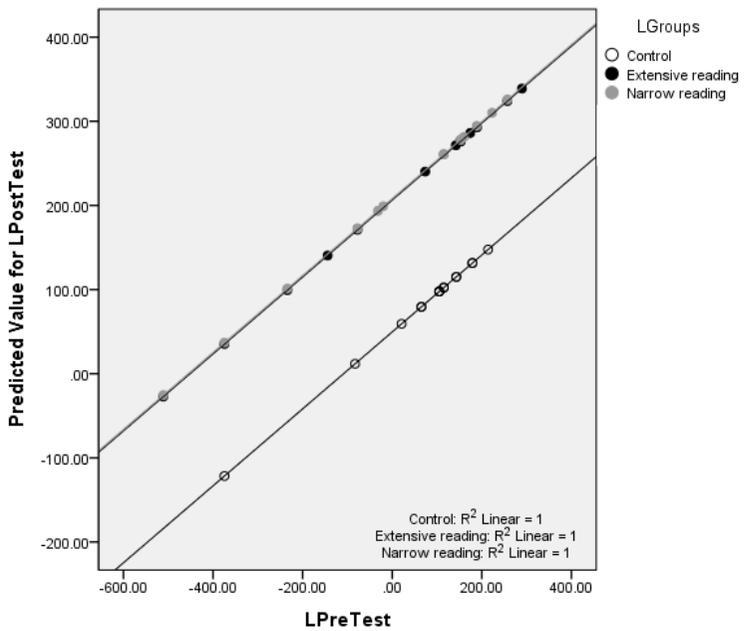
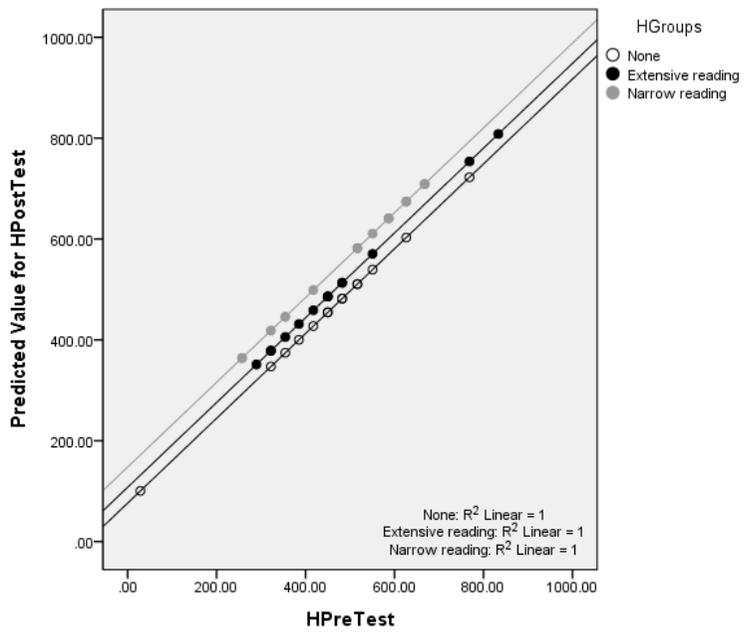


Figure 11 Regression Slopes of Posttest and Pretest for Each Proficiency Levels

Table 4.5 demonstrates the results of ANCOVA with the students' Lexile scores on the posttest as the dependent variable and their pretest Lexile scores as the covariate.

Table 4.5

Results of ANCOVA on Proficiency Groups' Reading Comprehension

Source	df	<i>F</i>	<i>p</i>
Pretest Scores (Covariate)	1	50.70	.000
Proficiency Levels (Main Effect)	1	4.56	.036
Proficiency Levels * Pretest Scores (Interaction Effects)	1	.50	.481
High Proficiency Group	2	1.10	.344
Lower Proficiency Group	2	11.30	.000

As seen in Table 4.5, the proficiency level was found to have the significant main effect on the reading comprehension of the students ($F(1,119)=4.56, p<.05$), implying that over 14 weeks, the changes in two proficiency groups' Lexile scores from reading comprehension test are significantly different. As there are only two proficiency groups, an additional set of ANOCAs was conducted for each of the high proficiency and lower proficiency groups. Table 4.6 also shows that the mean differences of posttest results among the high proficiency students were not statistically significant ($F(2,46)=1.10, p>.05$). On the other hand, the posttest results of lower proficiency students were significantly different among the research groups ($F(2,40)=11.30, p>.05$). Since it was found that the main effect for proficiency level is statistically significant for low proficiency level, Fisher's LSD test was used to analyze the main effect. The results

demonstrate that as far as the students with lower proficiency, the differences between the control group and ER group ($p=.000$) and between the control group and NR group ($p=.000$) were statistically significant. However, the difference between ER and NR groups was not statistically significant ($p=.963$).

4.1.3 Discussion on Reading Comprehension Development

As a growing body of international research supports the power of reading on general language learning (Clark & Rumbold, 2006; Krashen, 1993; PIRLS, 2006), reading methods that promote reading has been suggested as “the best way to help students learn to read and improve their reading skills” (Stoller, 2015, p. 152). Among reading methods, this research recognized ER and NR as two suitable approaches to engage students in reading enjoyable materials that are easily understood in large quantities (Bryan, 2011; Day & Bamford, 1998). As demonstrated through several previous studies, English learners of different ages benefited from ER and NR in developing their L2 reading comprehension (e.g., Ahn, 2003; Choi, 2014; Kim, 2014; Min, 2013).

In addition to examining the effectiveness of reading treatments, this research further included two proficiency groups to investigate the impact of proficiency level on reading comprehension as English learners’ L2 proficiency has been one of strong predictors in L2 reading performance (Carrell, 1991; Kieffer, 2008). Recently, Lee and Schallert (2014) examined a total of 809 1st and 3rd year Korean middle school students to investigate the relative contribution of L2 proficiency to L2 reading performance. They

found that the students' L2 proficiency contributed greater in predicting their L2 reading performance than L2 reading ability. However, investigating reading behaviors and performances of learners at different proficiency levels as the results of certain reading treatments has been neglected even with the important role of L2 proficiency in L2 reading comprehension. Thus, this particular study set to examine the effects of ER and NR on reading comprehension of Korean middle school English learners at different proficiency levels. This study hypothesized that ER and NR via online reading programs would have statistically significant effects on improving Korean middle school English learners' reading comprehension regardless of their proficiency levels.

As hypothesized, the difference in the mean posttest scores of the control group and experiment groups (i.e., ER and NR together) was statistically significant ($p < .05$). Yet, no statistically significant effect was found between ER and NR. In other words, the students who engaged in ER have higher posttest scores than those who did not get any reading treatments, but not more than those who engaged in NR. These results seem to provide full support for the claim that ER and NR have comparably significant impacts on Korean English learners' reading comprehension. However, the latter part of hypothesis was not supported by this study's results as it was found that ER and NR only had a statistically significant effect on lower proficiency students based on the mean Lexile scores for posttest adjusted by those for pretest. These findings make the statement that both ER and NR similarly affect Korean middle school English learners' reading comprehension still valid from both proficiency groups' increases in the

posttest. However, ER and NR only affect lower proficiency students to improve reading comprehension at statistically significant level.

The significant difference between two proficiency groups in their posttest mean scores lends credence to the following interpretation. Firstly, the background information questionnaires revealed that the students with high English proficiency in the control, ER, and NR groups spent more time studying English outside of school than those with lower English proficiency. In other words, the effects of ER and NR through the online reading programs may be decreased and was not statistically significant to the students with high English proficiency as those in the control group also have received comparable or even more language input outside of the school. On the other hand, the effects of engaging in ER and NR using online reading programs on reading comprehension may be maximized when applied to students with lower proficiencies who have had relatively less exposures to the target language input outside of school.

The second possible reason for the result can be related to the amounts of reading that the students have done through ER and NR. The number of words read by the students over 14 weeks indicate that the students in NR group overall read more than ER while the low proficiency students in ER and NR groups read more than high proficiency students. These differences in language processing experience may differ the students' outcomes in the post-reading comprehension test. Kim's (2014) study supports this potential reason as in his study, ER had a significant effect on reading ability of Korean college students across language levels when they read the range of 10,950 to 146,000 words. As Pfost et al. (2013) explains, authentic reading

experience “fosters the development of reading skills, and reading volume further increases as reading become more efficient” (p. 90). Pulido and Hambrick (2008) refers this pattern a virtuous circle of reading as opposed to a vicious circle of non-reading.

Lastly, the uses of different online reading programs for proficiency groups might be another reason for the significant difference between two proficiency groups. There are more interactive features in the program that lower proficiency group used such as audio-visual aids and rewarding stars that differentiates it from the text the high proficiency group read, which as comprised of non-fiction L2 texts which Topping et al. (2008) found to be “negatively correlated with successful comprehension and reading achievement gain” (p. 505). Thus, it could also be assumed that more interesting features of reading materials and program may aid lower proficiency students’ ER and NR reading experience. Even though there could be at least three possible reasons for the significant difference between two proficiency groups in their posttest mean scores, it still remain an unanswered question that needed to be investigated further and more in details.

In brief, the results that both ER and NR were helpful in reading comprehension, which corresponds with the previous studies conducted with various age groups and language backgrounds (Beglar & Hunt, 2014; Cho et al., 2005; Choi, 2014; Day & Bamford, 1998). By examining two proficiency groups, this study substantially strengthens the evidence for the pedagogic values of ER and NR on developing L2 reading comprehension of Korean middle school English learners with lower proficiency. Furthermore, as NR or ER did not make any significant difference in reading

comprehension between the two groups, it sheds light on the effectiveness of NR that is comparable to ER to Korean middle school students. With the prevalence of ER, it is often taken for granted without giving a second thought. Also, developing general reading comprehension while reading deeply about a single self-selected topic might seem skeptical at first glance. However, the results of this study indicate that the benefits of NR should not be overlooked where implementation reading approaches is concerned, particularly with young EFL students with low language and reading proficiency.

4.2 Effects on Reading Attitudes

In order to provide evidence to answer the second research question, the students' responses to the survey questionnaire were collected and analyzed. The following segments will present the results regarding the changes in the students' reading attitudes with discussion as tentative answers to the research questions on cognitive and affective reading attitudes of Korean middle school English learners.

4.2.1 Reading Attitudes of ER and NR Groups

The next focus of the present study is on changes in reading attitudes as the results of engaging in ER and NR. In order to examine whether there was any significant attitudinal change in L2 reading, paired-sample t-tests were conducted using the collected data from the pre-survey and post-survey. The results of t-tests are summarized and presented in Table 4.7 below.

Table 4.6
Results of Reading Attitude Survey

	Affective Domain					Cognitive Domain				
	Pre		Post		<i>t</i>	Pre		Post		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ER	2.83	.76	3.93	.64	-8.20***	3.21	.76	4.15	.47	-8.28***
NR	2.80	.82	4.00	.66	-8.38***	3.30	.74	4.27	.49	-9.05***
Total	2.80	.79	3.97	.65	-11.78***	3.26	.75	4.21	.48	-12.34***

Notes. (1) N=30 for ER and NR, N=60 for Total; (2) *** $p=0.000$

Both affective and cognitive domains showed significant difference in gains between the pre-survey and post-survey as the effects of ER and NR at the increased value of 1.17($t=-11.78, p<.00$) and 0.95($t=-12.34, p<.00$), respectively. These numbers show that how the students evaluate values in L2 reading and feel about L2 reading changed positively due to their 14-week of reading experiences. Breaking down the grand means of affective and cognitive domains into ER and NR groups, the gain of total means for affective domain increased 1.1 for ER group and 1.2 for NR group on average. Both groups' gains of total mean scores for affective domain after ER or NR are significant ($t=-8.20, p<.00, t=-8.38, p<.00$). Also for cognitive domain, the gains of the mean scores of the students after ER and NR are significant ($t=-8.28, p<.00, t=-9.05, p<.00$) with the mean scores increased by 0.94 and 0.97 for each ER and NR group on average. These results further indicate that the students who engaged in ER and NR not only consider L2 reading is helpful and useful but also begin to enjoy and feel confident in L2 reading.

4.2.2 Reading Attitudes of Proficiency Groups

In addition to the reading attitudes of ER and NR groups, this study further explores how the students in each proficiency group change their reading attitude through ER and NR experience. The following Table 4.8 and 4.9 each presents the reading attitude survey results of high proficiency group and low proficiency group.

Table 4.7

Reading Attitude Survey Results of High Proficiency Group

	Affective Domain					Cognitive Domain				
	Pre		Post		<i>t</i>	Pre		Post		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ER	3.25	.63	4.27	.62	-5.22***	3.71	.51	4.46	.31	-5.95***
NR	3.23	.57	4.21	.63	-4.78 ***	3.61	.69	4.46	.45	-4.64***
Total	3.24	.59	4.24	.61	-7.19***	3.66	.60	4.46	.38	-7.30***

Notes. (1) N=14 for ER and NR, N=28 for Total; (2) *** $p=0.000$

Table 4.8

Reading Attitude Survey Results of Lower Proficiency Group

	Affective Domain					Cognitive Domain				
	Pre		Post		<i>t</i>	Pre		Post		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ER	2.45	.68	3.64	.52	-6.20***	2.78	.67	3.89	.43	-6.35***
NR	2.41	.83	3.83	.64	-7.26***	3.03	.69	4.11	.48	-8.88***
Total	2.43	.75	3.73	.59	-9.56***	2.90	.68	4.00	.46	-10.47***

Notes. (1) N=16 for ER and NR, N=32 for Total; (2) *** $p=0.000$

Table 4.8 above shows that the gains of total mean scores for affective and cognitive domains for high proficiency group after ER and NR are

significant with the total mean scores increased by 1.0 and .08 each ($t=-7.19$, $p<0.00$, $t=-7.30$, $p<0.00$). Concerning low proficiency students, as seen in Table 4.9, the mean scores for affective and cognitive domains in total increased at a significant level ($t=-9.56$, $p<0.00$, $t=-10.47$, $p<0.00$). After engaging in ER and NR, the mean scores for low proficiency students' affective and cognitive domain increased by 1.3 and 1.1, respectively. These results indicate that engaging in ER and NR had a significant effect on changing both low and high proficiency students to have more positive feelings and evaluations toward L2 reading.

4.2.3 Self-Evaluation Responses of ER and NR

The students provided written responses to two open-questions evaluating either ER or NR and comparing it to their regular in-class reading lessons using the textbook. Some of the students' responses that either represent the rest or meaningful to note are excerpted as follows.

S1: "I like how I got into the habit of reading in English regularly. Reading about various topics interested me and made me focus on reading more than when I had to read textbook passages of pre-selected topics that are not my own interests (영어를 읽는 새로운 좋은 습관을 기를 수 있어서 좋았고, 다양한 분야의 읽기를 집중적으로 읽을 수 있어서 좋았다. 교과서는 내 관심분야가 없고 정해져 있지만 다양한 내 관심분야로 책을 읽으면 집중력이 향상 되어서 좋았던 것 같다)."

S2: "I enjoyed reading in English more and got into the habit of searching and memorizing unknown words from the texts. Textbook passages are too educational while I can read about my own topic of texts that are more interesting and authentic (영어를 더 재미있게 읽을 수 있었던 것 같고, 모르는 단어를 찾아서 외우는 버릇이 생겼다. 교과서는 너무 교육적인 내용만 있는데 내 관심주제에 대해서 여러 가지 이야기가 있어서 좋았다)."

S3: “I became more confident in reading in English throughout reading about different topics. Through reading, I felt that I am studying English and learning about the topics at the same time. I like my new experience of reading on EdSphere as it provides many English texts within my competency level. I think I read faster and more enjoyable as I do not mind grammatical components within the text. Also, I think my speaking ability also improved (다양한 주제에 대해서 읽다 보니 영어를 읽는 자신감이 생겼고, 애드스피어를 사용해서 읽는 것이 형식적이지 않아서 새로운 느낌이 들었다. 자신의 수준에 맞는 글을 선택할 수 있어서 좋았고 신기했다. 문법적인 내용을 배우면서 읽는 것이 아니라 확실히 더 빨리 읽고 지루하지 않았던 것 같고 말하기가 능숙해진 것 같다.)”

As Stoller (2015) mentioned about the power of giving choices in what they read, the above responses revealed that opportunities to choose readers that are not only interesting and motivating but also at the appropriate level empowered the students and led to more reading engagement and liking of reading. These comments indicate that ER and NR using online reading programs can be a feasible and appropriate solution to the particular difficulty of obtaining large collections of reader for students to choose from in Korean EFL environment. Further, these students appreciated positive effects of their experiential reading on creating positive reading habits, background knowledge, and other reading and language skills.

S4: “How no one can always supervise and help us when we are using Raz-Kids is a weakness when comparing to regular English classes when our teacher can explain and confirm everything we are learning through the textbook. But, opportunities for independent reading and audio supports of Raz-Kids are its strengths. Raz-Kids is like my one-to-one teacher who waits until I read and speak when I click the unknown words. Also, there are many texts that are easier than the textbook passages but interesting which make the independent reading possible (교과서는 선생님이 계셔서 모든 걸 설명해 주시고 확인해 주실 수 있지만, 라즈키즈는 직접 봐주는 사람이 없는 것이 단점인 것 같다. 하지만, 혼자 자발적으로 이해하고 넘길 수 있는 것과 영어를 읽어주는 것이 좋은 것 같다. 수업시간에는 학생들을 한 명 한 명 봐주기 어려워서 질문하기가 어려웠지만 라즈키즈 같은 경우 나

만의 1:1 선생님처럼 내가 다 읽을 때까지 기다려 주고 모르는 것은 누르면 읽어주니까 정말 좋은 것 같다. 그리고 교과서보다 쉬운 내용이면 서도 재미있는 내용이 포함 되어 있어서 혼자 읽어도 부담이 없다.”

S5: “Reading about various interesting texts of my topic was enjoyable. The texts contained similar contents and vocabulary which helped me to understand the texts even though I did not know the exact meaning or grammar of the text. I enjoyed reading about the specific topic that I am interested in more than reading about the textbook passages. Also, there were more varieties in contents and pictures within the texts on Raz-Kids (라즈키즈 내용이 재미 있고, 내가 관심 있는 주제의 글에 대해서 다양하게 읽을 수 있어서 좋았다. 단어나 내용이 비슷해서 정확한 뜻이나 문법을 몰라도 어느 정도 이해할 수 있었다. 내가 관심 있는 내용을 읽어서 교과서보다 더 흥미롭게 읽은 것 같고 내용이나 그림들이 더 다양하고 풍부해서 좋았다.)”

The response from S4 shows that the student had positive attitudinal changes toward reading in English because of the unique nature of e-texts and the online reading program. As Lin (2010) explains, different features were both interesting and helpful. Moreover, S5’s comment indicates that she benefited from NR where the redundancy in contents, vocabulary, and constructs aid learners to comprehend the message of texts. In sum, the students’ responses demonstrate the benefits that they realized, sometimes in conflict to regular English classes or to reading the textbook passages, through an experience of reading more, easily, happily, and regularly.

4.2.4 Discussion on Changes in Reading Attitudes

Reading attitudes have been explored in multiple perspectives such as their relationship with L1 reading attitudes (e.g., Yamashita, 2004), reading comprehension (e.g., Ahn, 2003; Jung, 2014) and reading involvement (e.g., Yamashita, 2004). Among research about reading attitudes, examining and

comparing high proficiency and low proficiency students' changes in reading attitudes after some sort of reading treatment has not been a popular topic. Yamashita (2004, 2007) focused on the effects of L2 proficiency in the transfer of reading attitudes from L1 to L2 yet he did not link L2 proficiency to L2 reading attitudes. Yet, previous research that included survey questionnaires or interviews to investigate the relationship between reading attitudes and reading achievement revealed that readers' positive feelings toward reading facilitate not only reading performance but also continuous reading. Given the important role of reading attitude in developing good reading behaviors, both ER and NR provide readers choices in what and how they read to inspire motivation and a liking of reading. Though there is the dearth of understanding in terms of L2 learners' reading attitudes in ER and NR, several previous studies have documented the positive influences of ER (Jung, 2014; Lin, 2010; Yamashita, 2004) or NR (Choi, 2014) on English learners' reading attitudes. Thus, based on the previous findings, this study hypothesized that the involvement in ER and NR using online reading programs would have statistically significant effects on affective and cognitive aspects of reading attitudes of Korean middle school English learners at different proficiency levels.

As the survey results showed, the changes in students' attitudes toward reading in English were noticeable. It is noteworthy that all scores of affective and cognitive aspects increased at a statistically significant level for all reading and proficiency groups. Based on the results, it is demonstrated that, cognitively, both high and lower proficiency students with ER or NR experience believed reading in English is beneficial for them

and have further motivation to continue reading. Also, affectively, they began to enjoy reading in English more and feel more confident in interacting with L2 texts. These findings are in line with previous research on reading attitudes of Korean learners regarding ER (e.g., Jung, 2013; Jung 2014) and NR (Ahn, 2003; Cho & Krashen, 1994; Choi, 2014). This study has thus, strengthened previous studies and contributed to diversity in investing affective and cognitive aspects of reading attitudes.

Most probably, the nature of ER and NR may have contributed to the positive attitudinal changes. The learners in this study were provided with choices for either various or a single reading topic of their interest, for comprehensible reading material within their choices of topics, and for time and places to read. The reading activity itself is interactive and purposeful to read for pleasure, information and general understanding (Bamford & Day, 2004; Cho et al., 2005). Further, the primary activity of independent reading is performed without accompanied lessons or assessments. Thus, these features not only support autonomous learning but also free learners from pressure which in turn encourages positive feelings toward reading in English.

Also, the more a reader reads, the easier reading becomes (Asraf & Ahmad, 2003 as cited in Lin, 2010). The learners in this study read more than they usually do in classroom, hence may have such an experience throughout the course of reading. As Lin (2010) recognized, this increased amount of the learners could have prompted the learners to learn more from reading and become more confident in reading. Since reading attitudes are closely related to the learners' positive experience and self-esteem, the amount of reading could play an important role in the positive attitudinal

change.

Lastly, unique features of reading materials from online sources contributed to the significant differences in the learners' reading attitudes. The concept of reading on computers may have excited learners as students welcome a change from regular lectures in the classroom and therefore could provoke their interests in learning (Janssens, 1977). Moreover, the reading materials that learners read are shorter than other authentic English novels or graded readers; hence, finishing reading each L2 text quicker than reading textbook passages or other materials could be a great achievement and motivation particularly for the learners with lower proficiency. It is predictable that these characteristics of reading materials that the learners interacted online assisted the learners to learn from reading easily and enjoyably and eventually led to have a positive attitudinal change.

CHAPTER 5.

CONCLUSION

This chapter presents the conclusions drawn from the results and discussions in the previous chapter. Section 5.1 summarizes and presents the major findings of the present research. The following section, Section 5.2 proposes pedagogical implications on teaching and learning of second language reading. Finally Section 5.3 discusses the limitations of the present study and provides suggestions for future studies.

5.1 Major Findings

The focus of the current study was to examine the feasibility of implementing independent reading techniques utilizing ER and NR through online reading programs among Korean middle school English learners and to explore the outcome of these efforts in terms of reading comprehension and attitudes toward reading through the course of ER and NR. This study also aimed to investigate how Korean middle school English learners at a high and lower-level differed in the developments. The key findings of the present study can be summarized as follows.

First, when looking at Korean middle school English learners' reading comprehension, ER and NR only had statistically significant effects on the learners with lower English proficiency. Even though the overall reading comprehension of high and lower proficiency groups showed increases from the onset of the study, only lower proficiency learners benefited at statistically

significant levels. Hence, this finding only partially supports the results of the previous studies suggesting that Korean learners across age and proficiency groups have demonstrated significantly different reading performances as the effects of ER (Jang, Kang, & Kim, 2015; Jung, 2014; Kim, 2014; Park, 2008) or NR (Ahn, 2003; Cho et al., 2005; Choi, 2014). Instead, it may provide further evidence demonstrating that ER and NR via online reading programs stimulate lower proficiency learners' interests in L2 reading more, which lead to larger reading amounts and greater improvements on reading comprehension. In this particular study, high language and reading proficiency did not guarantee the effective implementation of ER and NR.

With regard to the affective and cognitive aspects of reading attitudes, ER and NR had statistically significant effects on all participants across proficiency groups. Regardless of language proficiency levels, ER and NR via online reading programs can effectively reinforce affective and cognitive aspects of attitudes toward reading in English from the start of its utilization. Online reading programs and materials may have contributed by providing excitement and a great achievement (Lin, 2010). In addition, the learners' responses to self-evaluation questions revealed their recognition of unique benefits of ER and NR using online reading programs and positive evaluations of these approaches. Particularly, the learners found reading in English more enjoyable as they chose what they wanted to read, read as much and fast as possible, and read freely from pressure or limitations.

Finally, there was no performance difference in terms of reading comprehension and attitudes between the ER and NR group learners. Although the learners engaged in either wide-reading or deep-reading, changes in their

reading comprehension or attitudes did not show any sensitivity to the reading types. This finding may provide further evidence suggesting that NR, deep-reading of a single topic, does not limit learners' reading comprehension of that specific topic but leads to the improvements on general reading comprehension. Moreover, NR even resulted in better reading performances, in terms of reading amounts and post-reading comprehension test, than the ER group. Thus, this finding illustrates the comparable effectiveness of NR to ER to Korean middle school English learners, particularly at lower proficiency.

The fact that the student read a great deal of English beyond their usual reading amount in English at school through independent reading practice of ER and NR using online reading program is an incredibly positive finding. It indicates that ER or NR out-of-class using accessible resources is a feasible learning method for Korean middle school English learners. Additionally, as many of these students showed positive reading comprehension and attitudinal changes, it can be said that Korean middle school English learners even with lower proficiency could potentially exploit the benefits of ER and NR to the fullest when accompanied with diverse selections of enjoyable materials at their comprehensive level even despite an environment where target language input is hardly found out-of-class.

5.2 Pedagogical Implications

Based on the major findings of the study described in Section 5.1, some pedagogical techniques can be proposed for the teaching and learning of second language reading. These pedagogical implications are as follows:

- 1) Implementing independent reading practice of ER or NR using appropriate technologies out-of-class may be a feasible and effective method to help English learners and dismiss several problems that cause the unpopularity of ER and NR such as limited classroom hours, high stake school assessments, and lack of plentiful reading materials.
- 2) Instead of just assuming ER is always the most effective and neglecting NR, the effectiveness of the reading treatment types should be carefully chosen based on learners' individual preferences and the education goals of teaching and learning L2 reading as both ER and NR were similarly effective in this study.
- 3) Teachers' role should not be underestimated when learners engage in independent reading. Motivating learners at different proficiency levels prior to reading and continuously through the course of reading is crucial to make ER or NR most beneficial for them. Furthermore, teachers may suggest appropriate and comprehensible materials for learners and assist all learners to achieve their goals when they are struggling.

5.3 Limitations and Suggestions

Even though some insightful findings were included in this study, this study banks on being suggestive rather than definitive due to the following limitations which further studies are called to address. First of all, the present study is a small-scale study conducted over relatively a short period of time. Future research should replicate the implementation of online ER and NR on a larger population of learners with a longer period of time to achieve more reliable outcomes and to identify other significant benefits that this study might

have missed. Secondly, part of the reason that the present study did not find significantly different results among the high proficiency group's reading comprehension might be due to the uses of online reading programs from two different providers. Although the present study used two different programs with naïve intentions to match the learners' reading level to materials' reading level the best, it is recommended that future studies to use the same online resources to be more precise.

Additionally, future research regarding ER and NR should consider to investigate and address the relationship between the learner's reading amounts and changes in reading performances more qualitatively as some of this study's results show the possible relationship between the amounts learners read and the developments in reading performance. Hence, even though this study only measured overall reading amounts, projecting individual learner's reading profile and developments would be meaningful. In terms of examining learners' reading attitudes, as this study demonstrated the benefits of ER and NR in improving cognitive and affective aspects of reading attitudes, expanding the measures of reading attitudes to other factors such as motivation and self-efficacy should be considered in further research to explain how individual differences contribute in reading engagement and development. Lastly, the present study is site-specific, hence the results and findings should be seen in the context of this particular Korean middle school and the students who participated.

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APPENDICES

Appendix A Pre-Reading Comprehension Test

[Sample Questions]

English Reading Test, Grade 8

1.

A bird was singing. Tom looked for it. He found it sitting high up in a tree. Tom thought the bird was small. But then the bird flew by him. It was not small at all. It had just been far away.

- A. cold**
- B. red**
- C. glad**
- D. big**

The bird was _____.

2.

Gulls are birds. They often live near the sea. They sit on top of the water. Some can dive and swim. But they are not ducks. Ducks have shorter necks. They have wider bills, too.

- A. funny**
- B. sleepy**
- C. different**
- D. little**

Gulls and ducks are _____.

3.

The yard was pretty. Ben and his dad took care of it. Ben's dad cut the grass. Ben watered it. They both made sure the dog did not dig holes. Ben liked working on the yard. He did a good job, too.

- A. helped**
- B. looked**
- C. ran**
- D. ate**

Ben _____ in the yard.

4.

Gina was making lunch. She put a lot of peanut butter on the bread. She loved peanut butter. She added a little grape jelly, too. She made four sandwiches. Then she washed some apples. Gina put everything in a basket. She added some napkins and a blanket, too. It was such a pretty day. She thought everyone would like to eat outside.

- A. noise**
- B. friend**
- C. wagon**
- D. picnic**

Gina made a _____.

Appendix B Post-Reading Comprehension Test

[Sample Questions]

English Reading Test 2, Grade 8

1.

The airplane was big. Jane watched it from the airport. It moved really fast. She watched its wheels lift off the ground. She watched it take off. Jane opened her eyes wide. It looked too big to fly in the air. How did it work? She ran over to her dad. Maybe he could tell her.

- A. ready
- B. old
- C. helpful
- D. surprised

Jane was _____.

2.

During World War II, some special planes were made. They were called Spitfires. David Cundall wanted one. He heard some had never been used. But he needed to find them. He learned they were under the ground somewhere. It took fifteen years. But he found them. They looked like new when he found them.

- A. heard
- B. flying
- C. working
- D. hidden

The planes had been _____.

3.

The bike was blue. It had large, thin wheels. It even had hand brakes. Matt had wanted to get a new bike for a very long time. He was too big for his old one. And the paint was coming off it. Matt ran to his mom. She had a big smile on her face. She nodded and told him the bike was his. He gave her a hug.

- A. pleased
- B. cold
- C. noisy
- D. funny

Matt was _____.

4.

Xin liked the fish at the pet store. She could watch them swim all day. One of them was really fast. It was faster than all the other fish. Xin thought it was pretty, too. She asked her mom if she could get it. Her mom smiled and said, "Maybe."

- A. bought
- B. made
- C. wanted
- D. caught

Xin _____ a fish.

Appendix C Pre-Survey Questionnaire

영어 학습 경험 및 인식 조사 설문지

안녕하세요?

본 설문지는 영어를 배우는 학습자들에게 효과적인 영어 읽기 학습 방법을 찾고자 학습자의 영어 학습 경험과 영어 학습에 대한 인식을 조사하는데 목적이 있습니다. 이 설문지를 통해 수집된 의견은 부실학교의 영어 스마트학습환경 구축을 위한 연구의 기초자료로 활용될 것입니다. 본 설문조사는 약 10분 정도가 소요되며, 설문조사를 참여하거나 참여하지 않음에 따라 발생하는 손실이나 이득은 없습니다. 이 연구를 통해 얻은 모든 개인정보의 비밀 보장을 위해 최선을 다할 것입니다. 또한 연구 이외의 목적으로 사용하지 않을 것을 약속드립니다. 귀하가 이 설문지에 응답하는 것은 이러한 사항에 대하여 사전에 알고 있었으며 연구 참여를 허용한다는 동의로 간주될 것입니다. 만약 설문조사를 마치고 난 후, 본인의 설문조사 결과가 본 연구에 이용되기를 원하지 않을 경우, 언제든지 연구담당자에게 요청하여 연구 참여에 대한 동의를 철회할 수 있습니다. 이 연구와 관련하여 문의사항이 있으시면 아래의 연락처를 참고하여 주시기 바랍니다. 바쁘신 중에도 적극적으로 협조해 주셔서 대단히 감사합니다.

* 연구관련 문의사항

「스마트학습 디자인 연구 중 학습자 중심 스마트 교수학습활동 디자인 및 적용연구」 연구팀

- 서울대학교 외국어교육과 영어전공 연구담당자 강소진 (010-)

이 연구에 참여하기를 원하십니까? 예 아니오

* 각 문항에 해당되는 곳에 √표를 하거나 알맞은 답변을 적어주시기 바랍니다.

[1] 학습자 기본 영어 학습 경험 조사

1. 고유번호: _____ ① 버리반 ② 가온반 ③ 두루반

2. 학교 수업시간외에 영어를 다른 방법으로 배우고 있나요?

① 예 ② 아니요

* 2번에 ① 예 라고 대답한 경우에만 다음 3 ~ 5번의 문항에 응답하시기 바랍니다.

3. 어떤 방식으로 학교 수업시간 외에 영어를 공부했나요? (복수응답 가능)

① 학원 ② 학습지 ③ 개인과의
④ 방과 후 교실 ⑤ 인터넷 ⑥ 그 외: _____

4. 학교 수업시간 외에 다른 방법으로 영어를 얼마나 자주 배우고 있나요?

① 일주일에 1번 ② 일주일에 2번 ③ 일주일에 3번 이상

5. 학교 수업시간 외에 다른 방법으로 영어를 얼마동안 배웠나요?

① 1년 미만 ② 1년 이상 ~ 2년 미만 ③ 2년 이상 ~ 3년 미만
④ 3년 이상 ~ 4년 미만 ⑤ 4년 이상

6. 영어가 모국어인 나라에서 체류를 하거나 학교를 다닌 적이 있나요?

- ① 예 (나라: 기간:) ② 아니요

7. 영어를 학습하는데 있어서 가장 어려운 영역은 무엇인가요?

- ① 듣기 ② 읽기 ③ 말하기 ④ 쓰기

[2] 학습자의 모국어 읽기 및 영어 읽기 경험 조사

1. 학교 수업시간외에 한국어로 쓰인 글을 읽어 본 적이 있나요?

- ① 예 ② 아니요

※ 1번에 ① 예 라고 대답한 경우에만 다음 2 ~ 3번의 문항에 응답하시기 바랍니다.

2. 학교 수업시간외에 얼마나 자주 한국어로 쓰인 글이나 책을 읽나요?

- ① 일주일에 세 번 이상 ② 일주일에 한 번 이상 ③ 한 달에 한 번 이상
④ 방학이나 비정기적으로 가끔 ⑤ 전혀 읽지 않는다.

3. 지난 1년 동안, 학교 수업시간외에 몇 권의 한국어로 쓰인 책을 읽었나요?

- ① 1 ~ 3권 ② 4 ~ 6권 ③ 7 ~ 9권 ④ 10 ~ 12권 ⑤ 12권 이상

4. 학교 수업시간외에 영어로 쓰인 글을 읽어 본 적이 있나요?

- ① 예 ② 아니요

※ 4번에 ① 예 라고 대답한 경우에만 다음 5 ~ 8번의 문항에 응답하시기 바랍니다.

5. 학교 수업시간외에 얼마나 자주 영어로 쓰인 글이나 책을 읽나요?

- ① 일주일에 세 번 이상 ② 일주일에 한 번 이상 ③ 한 달에 한 번 이상
④ 방학이나 비정기적으로 가끔 ⑤ 전혀 읽지 않는다.

6. 학교 수업시간외에 영어읽기를 시작하게 된 계기는 무엇인가요?

- ① 학교 선생님의 권유 ② 부모님의 권유 ③ 학원 선생님의 권유
④ 개인적인 호기심 ⑤ 기타 (이유:)

7. 영어로 쓰인 글을 읽을 때 겪는 가장 큰 어려움은 무엇이며 어떻게 해결하나요? (예: 어려운 영어 단어, 익숙하지 않은 주제, 복잡한 문장 구조)

① 어려움 : _____

② 해결방법: _____

8. 지난 1년 동안, 학교 수업시간외에 몇 권의 영어로 쓰인 책을 읽었나요?

- ① 1 ~ 3권 ② 4 ~ 6권 ③ 7 ~ 9권 ④ 10 ~ 12권 ⑤ 12권 이상

9. 읽고 싶은 영어로 쓰인 글의 종류와 주제는 무엇 인가요?

① 종류 (예: 신문기사, 수필, 소설, 동화 등) : _____

② 주제 (예: 동물, 장래희망, 여행, 연예인 등) : _____

[3] 학습자의 영어 읽기에 대한 인식 조사

아래의 문항들을 잘 읽고 본인에 해당하는 의견에 따라 √표해주세요.

구분	문항	의견				
		전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	매우 그렇다
정서	나는 다른 과목에 비해 영어를 좋아한다.					
	나는 영어읽기가 재미있다고 생각한다.					
	나는 영어로 쓰인 글이나 책을 읽고 싶다.					
	나는 영어읽기 시간이 많았으면 좋겠다.					
인지	나는 영어 읽기가 영어 실력 향상에 도움이 된다고 생각한다.					
	나는 영어 수업 시간에 읽는 글을 자신 있게 읽을 수 있다.					
	나는 영어로 쓰인 글이나 책을 읽은 후 내용을 잘 이해한다.					
	나는 수업시간외에 영어 읽기를 해보고 싶다.					
	나는 내가 관심 있는 주제의 글을 계속 읽어보고 싶다.					

- 설문에 성실히 답변해 주셔서 감사합니다. -

Appendix D Post-Survey Questionnaire

영어 학습 경험 및 인식 조사 설문지

안녕하세요?

본 설문지는 영어를 배우는 학습자들에게 효과적인 영어 읽기 학습 방법을 찾고자 학습자의 영어 학습 경험과 영어 학습에 대한 인식을 조사하는데 목적이 있습니다. 이 설문지를 통해 수집된 의견은 부설학교의 영어 스마트학습환경 구축을 위한 연구의 기초자료로 활용될 것입니다. 본 설문조사는 약 10분 정도가 소요되며, 설문조사를 참여하거나 참여하지 않음에 따라 발생하는 손실이나 이득은 없습니다. 이 연구를 통해 얻은 모든 개인정보의 비밀 보장을 위해 최선을 다할 것입니다. 또한 연구 이외의 목적으로 사용하지 않을 것을 약속드립니다. 귀하가 이 설문지에 응답하는 것은 이러한 사항에 대하여 사전에 알고 있었으며 연구 참여를 허용한다는 동의로 간주될 것입니다. 만약 설문조사를 마치고 난 후, 본인의 설문조사 결과가 본 연구에 이용되기를 원하지 않을 경우, 언제든지 연구담당자에게 요청하여 연구 참여에 대한 동의를 철회할 수 있습니다. 이 연구와 관련하여 문의사항이 있으시면 아래의 연락처를 참고하여 주시기 바랍니다. 바쁘신 중에도 적극적으로 협조해 주셔서 대단히 감사합니다.

* 연구관련 문의사항

「스마트학습 디자인 연구 중 학습자 중심 스마트 교수학습활동 디자인 및 적용연구」 연구팀
- 서울대학교 외국어교육과 영어전공 연구담당자 강소진 (010-██████████)

이 연구에 참여하기를 원하십니까? 예 아니오

* 각 문항에 해당되는 곳에 √표를 하거나 알맞은 답변을 적어주시기 바랍니다.

[1] 학습자 기본 영어 학습 경험 조사

1. 고유번호: _____ ① 버리반 ② 가온반 ③ 두루반

2. 학교 수업시간외에 영어를 다른 방법으로 배우고 있나요?

① 예 ② 아니오

* 2번에 ① 예 라고 대답한 경우에만 다음 3 ~ 5번의 문항에 응답하시기 바랍니다.

3. 어떤 방식으로 학교 수업시간 외에 영어를 공부했나요? (복수응답 가능)

① 학원 ② 학습지 ③ 개인과외
④ 방과 후 교실 ⑤ 인터넷 ⑥ 그 외: _____

4. 지난 3개월 동안 학교 수업시간 외에 다른 방법으로 영어를 얼마나 자주 배우고 있나요?

① 일주일에 1번 ② 일주일에 2번 ③ 일주일에 3번 이상

[2] 학습자의 모국어 읽기 및 영어 읽기 경험 조사

1. 지난 3개월 동안 학교 수업시간외에 한국어로 쓰인 글을 읽어 본 적이 있나요?

① 예 ② 아니오

* 1번에 ① 예 라고 대답한 경우에만 다음 2 ~ 3번의 문항에 응답하시기 바랍니다.

2. 지난 3개월 동안 학교 수업시간외에 얼마나 자주 한국어로 쓰인 글이나 책을 읽나요?

- ① 일주일에 세 번 이상 ② 일주일에 한 번 이상 ③ 한 달에 한 번 이상
④ 방학이나 비정기적으로 가끔 ⑤ 전혀 읽지 않는다.

3. 지난 3개월 동안 학교 수업시간외에 몇 권의 한국어로 쓰인 책을 읽었나요?

- ① 1 ~ 3권 ② 4 ~ 6권 ③ 7 ~ 9권 ④ 10 ~ 12권 ⑤ 12권 이상

4. 지난 3개월 동안 학교 수업시간외에 영어로 쓰인 글을 읽어 본 적이 있나요?

- ① 예 ② 아니요

* 4번에 ① 예 라고 대답한 경우에만 다음 5 ~ 8번의 문항에 응답하시기 바랍니다.

5. 지난 3개월 동안 학교 수업시간외에 얼마나 자주 영어로 쓰인 글이나 책을 읽나요?

- ① 일주일에 세 번 이상 ② 일주일에 한 번 이상 ③ 한 달에 한 번 이상
④ 방학이나 비정기적으로 가끔 ⑤ 전혀 읽지 않는다.

6. 지난 3개월 동안 학교 수업시간외에 몇 권의 영어로 쓰인 책을 읽었나요?

- ① 1 ~ 3권 ② 4 ~ 6권 ③ 7 ~ 9권 ④ 10 ~ 12권 ⑤ 12권 이상

[3] 학습자의 영어 읽기에 대한 인식 조사

아래의 문항들을 잘 읽고 본인에 해당하는 의견에 따라 √표해주세요.

구분	문항	의견				
		전혀 그렇지 않다	그렇지 않다	보통 이다	그렇다	매우 그렇다
정서	나는 다른 과목에 비해 영어를 좋아한다.					
	나는 영어읽기가 재미있다고 생각한다.					
	나는 영어로 쓰인 글이나 책을 읽고 싶다.					
	나는 영어읽기 시간이 많았으면 좋겠다.					
인지	나는 영어 알기가 영어 실력 향상에 도움이 된다고 생각한다.					
	나는 영어 수업 시간에 읽는 글을 자신 있게 읽을 수 있다.					
	나는 영어로 쓰인 글이나 책을 읽은 후 내용을 잘 이해한다.					
	나는 수업시간외에 영어 알기를 해보고 싶다.					
	나는 내가 관심 있는 주제의 글을 계속 읽어보고 싶다.					

그동안 수업시간 외에 본인이 관심 있는 한 가지 주제에 관한 글을 계속해서 읽은 것이 자신에게 어떤 영향을 미쳤는지에 대한 생각을 적어주세요.

수업시간 외에 본인이 관심 있는 한 가지 주제의 글을 지속적으로 읽는 것이 일반적인 교과서 읽기 방법에 비해 좋은 점이 있었다면, 어떤 점이 좋았는지 그 이유를 적어 주세요.

그동안 수업시간외에 본인이 관심 있는 여러 가지 주제의 글을 계속해서 읽은 것이 자신에게 어떤 영향을 미쳤는지에 대한 생각을 적어주세요.

수업시간외에 본인이 관심 있는 여러 가지 주제의 글을 지속적으로 읽는 것이 일반적인 교과서 읽기 방법에 비해 좋은 점이 있었다면, 어떤 점이 좋았는지 그 이유를 적어 주세요.

- 설문에 성실히 답변해 주셔서 감사합니다. -

국문초록

현재 학교 영어수업에서 이루어지고 있는 영어읽기 수업은 대부분 교과서의 짧은 영어지문을 이용한 정독의 형태로, 학생들은 한정적인 읽기자료의 단어 및 문법적 구조에 집중하여 읽게 된다. 하지만, 학습자 중심, 자기주도적 읽기의 중요성이 대두되면서 영어지문의 의미와 내용에 집중하여 읽으면서 언어의 정확도 보다는 능숙도를 향상시킬 수 있는 영어읽기 학습방법의 필요성이 강조되고 있다. 이러한 관점에서 본 연구는, 학교 현장에서의 영어 읽기 경험의 한계를 깨닫고, 학습자 개개인의 영어학습 수준에 맞는 실제적인 읽기자료를 활용한 다독과 좁혀읽기를 수업시간 외에 자기주도적으로 할 수 있는 환경을 통하여 한국 학생들의 부족한 영어읽기 경험을 보완하고자 하였다.

지금까지의 다독 및 좁혀읽기의 연구가 수행되었지만, 실질적으로 EFL 환경에서 보다 쉽고 보편적으로 사용 될 수 있는 방법을 사용하여 연구되지 않았다는 점에서 입증된 효과성에 비해 활용도가 낮다. 뿐만 아니라, 환경적 제약으로 인해 다독과 좁혀읽기를 실행함에 있어 이 읽기방법들이 가지고 있는 특성을 최대한 포함하지 못하였고, 기존 연구들은 언어 학습에서 중요한 변수 중 하나인 학습자의 능숙도가 충분히 연구되지 않았다는 한계점이 있다. 따라서, 이번 연구를 통하여 이러한 다독이나 좁혀읽기 방법을 이용한 자기주도적 읽기가 한국 중학교 영어학습자들의 영어 읽기이해능력과 읽기태도에 어떠한 영향을 미치는지 알

아보고, 이러한 읽기경험이 모든 수준의 학습자들에게 유의미한 영향을 끼치는지 살펴보았다.

본 연구의 참여자인 서울특별시 소재의 한 여자중학교 학생 90명(상급 학습자 42명, 중·하급 학습자 48명)은 동일하게 다독집단, 좁혀읽기집단, 일상적인 영어 수업만 받는 통제집단으로 나뉘어졌고, 다독과 좁혀읽기집단 학생들은 수업시간 이외에 온라인 영어읽기 프로그램을 활용하여 자기주도적으로 본인의 수준과 흥미에 맞는 다독 혹은 좁혀읽기를 14주 동안 실시하였다. 모든 학생들은 사전·사후 영어읽기이해능력 시험과 영어읽기태도에 관한 설문조사에 응했으며, 사후 영어읽기이해능력 시험 결과 및 설문조사 결과를 비교한 결과, 다독과 좁혀읽기가 본 연구의 한국 중학교 영어학습자들의 영어읽기능력 및 태도에 미치는 긍정적인 영향을 확인할 수 있었다. 다독과 좁혀읽기를 실시한 집단이 일상적인 영어 수업만 받은 집단에 비해 더 높은 영어읽기이해능력과 더 긍정적인 읽기태도를 보였으며, 다독집단과 좁혀읽기 집단은 유의미한 차이를 보이지 않았다. 이는, 다독과 좁혀읽기가 영어읽기이해능력 및 읽기태도 향상에 동등한 긍정적인 영향을 미치는 것을 나타내며, 비교적 알려지지 않은 좁혀읽기 방법의 효과성을 확인할 수 있었다.

한편, 영어 능숙도 집단 별 사후 영어읽기이해능력 시험 결과는 다른 양상을 보였다. 다독과 좁혀읽기를 한 상급학습자들의 영어읽기이해능력은 일상적인 영어 수업만 받은 상급학습자들의 영어읽기이해능력과 유의미한 차이가 없는 것으로 나타났다. 반면에, 다독과 좁혀읽기는 중급·하급 학습자들의 영어읽기이해능

력에 보다 더 유의미한 향상을 보여주었다. 이러한 결과는 상급 학습자들이 중급·하급 학습자들보다 더 적은 양을 읽었다는 점, 비교적 상급 학습자들의 사교육 횟수와 시간이 많은 점과 다독과 좁혀읽기를 한 상급 학습자들이 사용한 온라인 영어읽기 프로그램이 다르다는 점으로 설명 될 수 있지만, 이번 연구에서는 보다 명확히 알 수 없었다. 이러한 결과에 근거하여, 본 연구는 실현 가능한 다독과 좁혀읽기 방법에 대한 시사점과 이후 연구에 대한 제언을 결론부에 제시하였다.

주요어: 영어읽기, 다독, 좁혀읽기, 영어읽기이해, 읽기태도

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