L2 Reading Ability and Lexical Writing Development: Does University In-class Extensive Reading Work?

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Although reading is part and parcel for the development of L2 literacy skills, such as in reading and writing, the skill has been practiced more often for grammar instruction and literal translation in EFL contexts. While realizing there is less focus on the development of L2 skills through extensive reading (ER) in EFL university contexts, the purpose of the present study was to explore the outcome of an in-class ER approach in English university classrooms. With 249 students, the study reports on the implementation of a university level ER class and the outcome for L2 development via the measures of L2 reading speed, L2 speed reading comprehension, and L2 lexical writing ability. Results indicated positive outcomes for the development of students’ L2 reading ability, productive retrieval of academic words and lexical variety. The outcome of the ER program validates the effort and time expended on such programs when graded readers are utilized at matching student Lexile levels.

Key words: extensive reading, graded readers, L2 reading ability, speed reading, lexical L2 writing

1. INTRODUCTION

While there are many purposes for reading and different skills involved, reading can be defined as the “process of receiving and interpreting information encoded in language form via the medium of print” (Urquhart & Weir, 1998, p. 22) or as “Comprehension [that] occurs when the reader extracts and integrates various information from text and combines it with what is already known” (Koda, 2005, p. 4). However, when we think of the

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different purposes for reading and the varying processes that are called into play, it is evident that no single statement is going to capture the complexity of reading.

In the context of the present study, we focus on “extensive reading” (ER), reading widely and in large quantities, which has been frequently recommended by well known reading experts such as Grabe (2002), Eskey (2002), and Nuttall (1996). The researchers explain how ER has been effective in reinforcing reading and writing proficiency. Day and Hitosugi (2004) also explain that “in an ER approach, students read large quantities of books and other material that are well within their linguistic competence” (p. 21). In contrast to intensive reading, which focuses on translation and comprehension of the text, ER is considered more manageable for the L2 learners since the readers’ attention is drawn to meaning, not the language (Nation, 2009). That is, when learners are engaged in extensive reading, they are able to read materials that involve few unfamiliar vocabulary and grammar since their attention need to be focused on meaning of the text rather than detailed understanding of the text.

Another benefit is that “extensive reading is usually related to pleasure, information, and general understanding, and these purposes are determined by the nature of the material and the interests of the student” (Day & Bamford, 2009, p. 8). That is, the purpose of extensive reading should be based on students’ interest and their own choice of what they want to read. Through the process, learners will be able to choose what they are interested in reading according to their own preferences, and develop language skills at their own speed (Day & Hitosugi, 2004).

In spite of the usefulness of ER proved by previous researchers (e.g., Cho & Krashen, 1994; Day & Hitosugi, 2004; Hafiz & Tudor, 1990; Lai, 1993; Susser & Robb, 1989; Tsang, 1996), few programs in the Korean context have been able to implement well-grounded ER programs particularly at the university level, and results are split on whether it is effective for reading comprehension (e.g., Cha, 2009; Yang, 2010). This seems to arise from the ambience that at the university level, it is the students’ responsibility to be able to take care of their own learning. Also, instruction for Korean learners of English is often focused on exam-oriented written English input where intensive reading is involved; students are situated to analyze texts line by line and memorize vocabulary or grammar structures (Hwang, 2011; Kim, 2012; Yang, 2010). The result is that students will rarely have the opportunity to read extensively or for pleasure in L2. This type of reading approach is eventually likely to slow down the reading process and demotivate students to read in L2.

From a more general perspective, Grabe (2009) goes on to point out how ER has been the focus of attention for a growing number of researchers and teachers from the 1990s. Yet when we look at reading programs, reading textbooks, and reading reference sources, the role of ER in classrooms around the world is remarkably small. Grabe explains that the
nonpopularity of ER, at least in L2 settings, is due to how fluent reading is often not really the goal for a reading curriculum; rather, the goal is the development of language skills, vocabulary, grammar, or translation.

Ultimately, even when there have been studies on the implementation of ER, most studies have treated ER either as an extra-curricular activity or as a part of a regular class where the number of participants has been small (Day & Bamford, 2009). Most of all, the researchers have been questioning the benefits and the outcome of a formal ER program at the university level. As such, the purpose of the present study is to incorporate a formal ER program (e.g., equipped with selection of graded readers) into a reading curriculum, and seek to investigate if the results can be generalized for L2 university learners of English in Korea. When the source of input in English is lacking as in EFL contexts, ER seems to be the propitious way of providing quality input by tailoring content and level to the learners’ need.

2. BACKGROUND

2.1. Extensive Reading and L2 Reading Ability

Regarding the benefits of language learning through ER, a number of empirical studies have validated how improvement of reading ability can be attributable to ER. The studies have used different measures to assess development in reading ability via reading fluency and reading proficiency measures (Bell, 2001; Day & Bamford, 2009; Elly & Mangubhai, 1981; Elly & Mangubhai, 1983; Hayashi, 1999; Iwahori, 2008) in addition to reading attitude (Day & Hitosugi, 2004; Nation, 2009), and vocabulary acquisition (Al-Homoud & Schmitt, 2009; Hayashi, 1999; O, 2011).

In an attempt to confirm the effectiveness of ER, Bell (2001) carried out a study with 26 students of elementary level in Yemen over a period of two semesters. 14 students in the ER group were allowed to borrow and read a large collection of graded readers on a regular basis, while 12 students in the control group (CG) read short passages intensively, followed by completion of tasks focused on linguistic contents. Both groups spent 36 out of 144 hours reading during the period of the study, and the reading was conducted both in class and for homework. On the analysis of the result between two groups, it was found that the ER group had achieved significantly greater gains on reading speed and reading comprehension than the CG group had made. The significant differences indicated that the ER group based on graded readers had been productive for improvement of reading speed and reading comprehension as compared to the CG group which had focused on intensive reading classes.
Similar to the results of Bell (2001)’s study, Iwahori (2008) also proved the effectiveness of ER on reading rates and general reading proficiency. The ER study was executed with 33 high school students in Japan for 7 weeks. With a total of 137 number of graded readers and comic books provided, the students could choose and borrow books at their preferences, followed by reading assignments. As a result of the ER treatment, the Japanese high school students were able to demonstrate enhanced reading rates and general language proficiency.

In comparison, the 10-week ER study conducted by Al-Homoud and Schmitt (2009) in Saudi Arabia seemed to yield different results when the students in the ER class performed as well as those in the intensive reading (IR) class on tests of reading comprehension ability, reading speed, and vocabulary acquisition. That is, it indicated that both groups had positive gains on the tests. It was, however, noted that when considering challenging conditions in the ER group such as weaker students, short duration, and inactive readers, the results of the study can sufficiently support the evidence of benefits of ER.

The most convincing evidence for the benefits of extensive reading comes from what has come to be known as the “book flood” studies (Elly & Mangubhai, 1981; Elly & Mangubhai, 1983), which looked at the effect of extensive reading on the English language proficiency of Fiji elementary school children. These studies provide evidence of a clear improvement made by the students on measures of language use (consisting of oral language, reading comprehension, and writing), language knowledge (which included word recognition, vocabulary knowledge, and grammar), as well as academic performance (as measured by the examinations used across the Fiji elementary school system).

In the domestic context, Kim (2012), O (2011), Yang (2010), Cha (2009), Chang (2011), and Jeon (2008) investigated the effectiveness of ER activities. O (2011) had 53 Korean learners of English at a women’s university in Seoul participate in a 12-week ER program. In the study, she examined the students’ vocabulary learning and reading comprehension improvements, and their perceptions toward ER activities. During 12 weeks, the students in the ER group (EG) were asked to bring some graded readers for themselves and post what they had read and comment about the books at an online community whereas the participants in the control group (CG) were not required to do this. The results produced by pre- and post-tests with the use of TEPS mock tests indicated significant improvements on the vocabulary test in the EG whereas the CG did not demonstrate a meaningful difference. However, the reading comprehension tests did not display statistically meaningful differences between the pre- and post-tests for both the EG and CG so that the positive outcomes of ER were not completely confirmed.

Unlike O’s research, Yang (2010) focused on conducting ER in the form of an extracurricular activity, that is, conducted outside the classroom in order to investigate the effectiveness of ER in English classes. The effectiveness of ER on college students’
reading speed, grammar/vocabulary ability and their attitudes toward reading was investigated in the study using two different types of extensive reading methods (extensive and modified extensive) in college EFL classrooms for 12 weeks. The two ER groups were assigned to read English story books individually chosen from *Penguin Graded Readers* or *Oxford Bookworm Library* series at least two hours a week out of the class time. Students were asked to keep a reading record sheet and book reports, including a very short book summary and their reaction to the story in the book reports. Students in the modified extensive reading group were instructed to read a letter from Annie’s Mailbox on the Internet every week and to submit a report with translation of the text, sentence part markings, and a vocabulary log on a weekly basis. The study came up with the findings that the extensive reading approach was effective on reading speed gains, grammar improvement and for developing positive attitudes. The modified extensive reading was also found to be effective in language gains. However, the researcher does not explicitly state that there was improvement in reading comprehension.

Cha (2009) conducted an empirical study for 12 weeks on whether ER would be effective on Korean EFL learners’ reading speed and vocabulary gains. Her study aimed to examine whether the benefits of ER, especially gains in L2 vocabulary and reading rates, are effective for Korean vocational high school students who are regarded to be reluctant in learning L2. Half of the 20 students in the study received ER treatment by reading graded readers extensively and the other half did not receive any treatment. The results indicated that the ER group showed significant growth in L2 reading rates, but no gains in vocabulary sizes.

For conducting in-class ER with the teacher present, Jeon (2008) investigated the feasibility of the ER approach in a formal college-level English reading class. Jeon examined the possibility of using ER as the main part of classroom activities on 17 students in the ER class by comparing 22 students in the intensive reading class. During the 12 weeks, he examined students’ reading abilities in English, their reading behaviors and perceptions towards ER. In order to measure them, he used three reading tests (reading speed, recall and cloze tests), asked students to write reading records, conducted interviews with the students, and collected course evaluation questionnaires. The students in the ER group were asked to engage in reading graded readers inside and outside the classroom, but there were no follow-up activities except a short summary of what they had read. The results demonstrated that students’ reading behaviors and perceptions towards ER were positive after the course. Through the analysis of students’ reading performance, it was revealed that students’ reading abilities in English in the ER group improved on the three reading tests whereas the CG did not show significant increases.
2.2. L2 Reading and L2 Writing Competence

While there have been studies researching the outcomes of ER for extended reading abilities, another area where effects of ER can be validated is through L2 writing. In fact, there is general evidence supporting positive influences of reading on language and literacy development. However, Grabe (2001) points out how we still lack a comprehensive understanding of exactly how the act of reading shapes writing proficiency since the literature in this area is rather mixed in their results. One of the reasons for this may be due to how the ER research has been conducted with conditioning of different quantities and length of time readers are exposed to language input so that these factors are not consistent across studies and make it difficult to make generalizations. There have also been reports on the outcome of ER for different ESL and EFL contexts, which lead to inconsistent results regarding influences of reading on writing abilities of learners across different age groups. As such, the results on the effects of ER are split between those that have indicated reading to be highly related to improvement in L2 writing performance (Elley, 1991; Hafiz & Tudor, 1989; Hafiz & Tudor, 1990; Hayashi, 1999; Hedgcock & Atkinson, 1993; Janopoulos, 1986; Krashen, 1993; Mason & Krashen, 1997; Tsang, 1996; Tudor & Hafiz, 1989), and others that only see moderate or no significant improvements in L2 writing ability after exposure to L2 reading (Lai, 1993; Kirin, 2010).

In a study where a relationship seemed to exist, Janopoulos (1986) reported statistically significant relationships between students’ self-initiated reading patterns and standard composition scores in an analysis of the reading habits and L2 writing performance of graduate ESL students. He concluded that “the amount of pleasure reading a student does in English may be used as a reliable predictor of his/her English writing proficiency” (p. 767). Tudor and Hafiz (1989) and Hafiz & Tudor (1990) studied the effects of extensive reading among students in the UK and Pakistan respectively. Hafiz and Tudor in their study found in the learners’ writing that there were significant gains in both fluency and accuracy in the use of expressions, though not in the range of structures used. In another study, Tudor and Hafiz (1989) set up a three-month ER program using ‘graded reading books’ to improve the learners’ language competence. Results demonstrated improvement in the learners’ reading and writing skills and a simpler but more correct use of syntax in the L2. Elley’s (1991) synthesis of nine “book flood” studies conducted around the world similarly confirmed the “spread of effect from reading competence to other language skills—writing, speaking, and control over syntax” (p. 404).

Tsang (1996) compared the effects of an enriched syllabus which included extensive

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1 The researchers are aware on how there may have been instances of avoidance as a strategy in the writing tasks so that the writing products may not reflect improvements.
reading and frequent writing assignments on English descriptive writing performance at different form levels with Cantonese-speaking students at four form levels in Hong Kong. There were three groups named mathematics, reading, and writing group, and the students in the reading group only were asked to conduct extensive reading with graded materials in the school library. When the researcher conducted pre- and post-writing tests for each group, the results of the total scores in each group indicated that there were significant improvements only in the reading group. Results also indicated significant higher mean scores in the reading group in comparison to the other two groups. Suggesting that reading contributes more significantly to composing proficiency than even intensive writing practice, Tsang concluded that extensive reading improved general knowledge and thus helped develop content in writing.

In a study investigating various factors of L1 and L2 reading and writing, Hedgcock and Atkinson (1993) examined the reading habits of L1 and L2 university level speakers of English, as determined through a self-report questionnaire, and their expository writing proficiency, as judged through a holistically-scored essay. The results for L2 showed no significant relationship between writing scores and textbook or fiction reading in L2. The authors conclude that either exposure to L2 texts may have little or no impact on L2 writing proficiency, or that their methodology simply did not detect it. The researchers deduce that the placement exam that was used to measure L2 writing proficiency or writers’ varying L1s (not mentioned in the study) may have played a role in the results. As such, the study conducted by Hedgcock and Atkinson does not demonstrate a relationship between L2 reading and L2 writing.

In a similar vein, Kirin (2010) reports on a study where the researcher was not able to find clear relations between reading ability and writing ability. The study reports on a 15-week reading experiment with a group of Thai EFL learners who were encouraged to read, and were then sub-divided for statistical analysis on the basis of their reading amounts. All participants had their essay writing abilities measured every five weeks throughout the entire engagements with simplified reading books. Regarding results, low-ability learners were found not to have improved in their writing ability despite additional reading involvement over the four months. The researcher attributes this to how all the participants were given the same books to read regardless of proficiency levels so that this may have created different levels of interest and comprehension, leading the low-ability learners to read superficially and rarely reach a threshold level for producing language at the sentence level.

In addition to the unclear results that can be found for the connection between L2 reading and L2 writing, the studies with the ER approach indicate how there has not been much attention paid to the lexical aspects of writing that can be researched in the learners’ writing products. Ponniah (2011) examines the impact of reading on vocabulary
development with adult ESL students in India, but results were analyzed from the students’ performance of vocabulary knowledge rather than free production. (See Methods below in how we were interested in learners’ vocabulary profile as indication of writer’s development in L2 writing).

The current study intends to contribute to the split findings that can be found on ER and in particular to check on the feasibility of conducting ER in the EFL university context. In previous studies in the Korean context, some studies are unclear on whether reading comprehension was enhanced (e.g., Cha, 2009; Yang, 2010). The present study also incorporates ER as a main part of the classroom syllabus in the university English classroom, rather than as an extracurricular activity. Previously, Jeon (2008) investigated the feasibility of the ER approach in a formal college-level English reading class where ER was the main activity, but the number of learners was insufficient (n = 39) to generalize for interpreting results of ER-based classrooms so that results may be inconclusive. In our study, there was also a large volume of graded readers for the students to read with more than a 1,000 books to choose from. Each graded reader used in class was accompanied by a matching short reading comprehension quiz so that this allowed the students to systematically check their comprehension on what they had read. Last but not least, a research-based and computer adaptive reading comprehension assessment was employed in order to help students select books at their appropriate levels (See Methods below for details). To corroborate the validity of a university in-class ER program as an independent program devoted mainly to extensive reading, we were guided by the following research questions:

1. How does in-class ER influence development of EFL university students’ reading ability (i.e., reading proficiency, reading speed and speed reading comprehension)?
2. How do ER classes affect students’ writing ability as seen by the use of different lexical measures?
3. What are the potential predictors of L2 learners’ general reading proficiency?

3. METHOD

3.1. Participants

Participants were 249 students at a Korean university located in Inchoen. The data for this study were collected for 15 weeks during the Fall semester in 2011 where all students were taking the ER course as a requirement for graduation in a course titled English Reading. The participants in the study were in their sophomore or junior year of university.
and had been assigned to four different classes by their affiliated colleges and majors (i.e., Liberal arts, Fine Arts, Natural Sciences, and Engineering). Most of the students in the present study had already taken the English reading course when they were a freshman or a sophomore so that most were familiar with the procedures of the ER course. According to the survey conducted on students' English learning background at the beginning of the semester, most of the participants had studied English for more than 9 years and they were all in their early twenties. During the period of the study, only a negligible number of students \( n = 9 \) from the 249 students were taking other English-related courses in the university. Overall, it was found that most students' main source of input in English was obtained via reading in the ER course.

3.2. Instruments and Materials

3.2.1. Reading proficiency test

In order to measure students' performances on reading, the TOEIC (Test of English for International Communication) scores as pre- and post-tests of the ER courses were utilized. Incidentally, the university where the research was implemented required all students in the ER classes to take TOEIC, that is, at the beginning and end of semester. Since the learners' reading ability was of main interest, only the reading comprehension (R/C) scores on TOEIC were used in this study, and the total for this part of the test was 495 points. The instrument recorded moderate reliability with Cronbach's alpha of .864.

3.2.2. Speed reading tasks

To validate and triangulate students' reading proficiency scores (i.e., TOEIC), we also utilized a secondary means to measure reading ability, that is, speed reading tasks through which we were able to assess more of an in-class performance-based measure of reading ability. Through the task, we were able to assess both the students' reading speed and reading comprehension scores. Eskey and Grabe (1988) have pointed out the importance of speed or automaticity in word recognition so that it needs to be tapped into for assessing reading ability. Another common component of reading is comprehension, which consists of parsing sentences, understanding sentences in discourse, building a discourse structure, and then integrating this understanding with what one already knows (Alderson, 2000). Assessment of the two sub-constructs of reading was simultaneously possible through the speed reading tasks. Moreover, utilization of the speed reading task was considered logical since reading speed, in concert with reading comprehension, is a precondition for any effective reading to occur during the students' academic lives and in terms of time
management on high-stakes test taking.

Speed reading tasks were conducted as pre- and post-tests at the beginning and end of semester. Two different sets of the speed reading tasks, to eliminate any practice effect, were selected from *Asian and Pacific Speed Readings for ESL Learners* (Quinn, Nation, & Millett, 2007). The package has been created for the purpose of training students to increase students’ reading speed through a daily speed reading exercise. Each reading passage is approximately 550 words, each with ten comprehension questions. Through the speed reading tasks, we were able to measure both the students’ reading speed and reading comprehension ability that accompanied the speed reading tasks. The reading speed tests and the speed reading comprehension tasks respectively recorded Cronbach’s alpha of .718 and .697.

The readings are based on topics related to Asia and the Pacific and are written within the 1,000 most frequently used words of English (West, 1953). The only exceptions are words that are explained in the text, the titles of passages or content words like country names and animal names. In addition, the grammar has been restricted by limiting the number of relative clauses, passives and difficult time references. The title of the readings selected as pre- and post-tests of ER were respectively *The English Language* and *Life in the South Pacific Islands*. The readings were selected based on student interest and relatedness.

3.2.3. Extensive reading materials

Reading materials that were used in the ER classrooms were more than 1,000 graded readers provided by publishers of *Scholastic*, and the readers diversely ranged in genres of adventures, fairy tales, thrillers, human interests, science, fiction, and cultures. *Scholastics* supplies a SRI (Scholastic Reading Inventory), which is a research-based, computer-adaptive assessment originally for Grades K–12 that measures students’ levels of reading comprehension based on the Lexile Framework, and was deemed suitable in the EFL college classrooms. The Lexile scores is a common scale for measuring text difficulty and student reading ability, and scores have been calculated by two factors: Semantic difficulty and syntactic complexity. Accordingly, with information on Lexile scores, the students in the current study were able to select books that matched their level of reading ability. According to Birmingham (2006), lexile scores are research-proven and scientific measures of reading ability and text difficulty. The Lexile map provides examples of

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popular books and sample text at various points on the Lexile scale, from 200L for early reading books to 1600L for more advanced texts.\(^4\)

3.2.4. Book review reports

As the course progressed, the students were required to write a book report (approximately 250 words) in English as a course assignment after having finished reading each book. A book report form was adopted from that presented by Day and Bamford (2009), whereby student-readers were asked to describe the characters in the book, the most interesting part of the book, personal experiences or thoughts related to the story of the book, and ideas on how to change the story. For the study, the corpora of students’ first and last book reports were utilized for analysis with *Web VocabProfile* (see next section) in order to seek any benefits of ER on students’ development of productive lexical knowledge in L2 writing.

3.2.5. Web VocabProfile

The Internet-based program *Web VocabProfile*,\(^5\) originally adopted from RANGE (Heatley, Nation, & Coxhead, 2002), was utilized to analyze the range of lexical words produced by students for their book reports. The program analyzes text for the proportion of 1\(^{st}\) 1,000 (K1), 2\(^{nd}\) 1,000 words (K2), and Academic Words that are used in a corpus. While K1 and K2 bands refer to the high-frequency words of English needed for basic communication (Nation, 2001), the percentage of words at different bands can provide information on how students’ written lexical profiles may have changed over time, that is, before and after the ER sessions.

3.3. Procedure

The reading course itself lasted for the duration of 15 weeks. However, week 1 of the semester was spent on implementing a pre-speed reading task and administering pre-TOEIC. The results of each student’s SRI for a Lexile level were supplied to find matching graded readers. That is, most of the students had obtained a Lexile level from the previous semester. Those students without it had to take the test for SRI. Week 14 was expended on administering the post-TOEIC, and the post-speed reading task was administered in week 15, which as a result left 12 weeks for the actual ER.

\(^4\) See http://www.lexile.com/tools/lexile-map/ for more information on Lexile measures.

\(^5\) Accessed from: http://www.lextutor.ca/vp/eng/
All participants in the four different classes participated in the identical course *English Reading*. One of the researchers of the study was also the instructor of the classes, which enabled her to observe classes as well as collect data during the whole semester. Each class met 2 hours a week for 12 weeks. All student readings were carried out only in the ER classes. However, one of the course requirements was to see that each student finished reading one assigned book, and when this goal was not reached, the students had to finish reading outside the classroom. While the students were engaged in silent reading in the ER classes, the instructor also read books and answered questions from individual students. Day and Bamford (2009) claims that “giving students valuable class time in which to read is one of the things that teachers can do to demonstrate the value of reading and to establish a reading community” (p. 128). That is, existence of the teacher in the ER class as a role model of a reader for students can influence the students’ reading behaviors and attitudes.

The pre-speed reading task administered at the beginning of the semester was accompanied by 10 follow-up comprehension questions to assess any improvement by comparing with the later post-speed reading task after the ER course. The testing procedure for this task was as follows: First, the students were asked to record their accurate reading time by indicating both minutes and seconds as soon as they had finished reading the passage within 7 minutes by watching the timer set in front of the classroom. Students who could not finish reading within 7 minutes were allowed to record “more than 7 minutes.” Thereafter, 10 short reading comprehension questions were distributed to the students, and they were required to answer the questions without looking back at the passage.

In the following weeks, the students in the ER classes were asked to choose graded readers according to their Lexile levels, through which books could be chosen at their level or slightly beyond it. The students’ personal preference and interests were also considered. The students read as much of the books as they could during the sessions and completed a 15-item comprehension question quiz once they had finished reading each book. The questions were computer-based and the reading comprehension questions had been already set on every computer before the semester in the ER classrooms.

Subsequently after every class, the students were asked to submit their book report cards, which had been distributed to the students at the beginning of the semester. It was in the interest of the instructor to check on the students’ reading progress and give brief comments on it. According to Nation (2009), a short book record form helps teachers in the ER class to see at a glance how much learners have read over a period of time. As such, by looking at the student book records, the average amount of students’ reading for the whole semester could be calculated for later examination. With regard to writing a book report, the instructor gathered these writing products after each reader had been completed by the students. For the study in examining changes in the lexical profile of the written products, the first and the last book reports were examined for any lexical changes in the use of...
English vocabulary in writing after the semester. After the 12 weeks of the actual ER sessions, the course ended by asking students to take the post-TOEIC R/C in week 14, and the post-speed reading task in week 15.

3.4. Data Analysis

For data analysis, SPSS (Statistical Package for Social Sciences) 18.0 was used to analyze the variables of interest. The paired t-test was employed to track any changes before and after the ER via TOEIC, L2 speed reading tasks, and book reports for lexical profiles of L2 writing. One-way analysis of variance (ANOVA) with post-hoc tests was used to check any improvement in students’ reading ability or lexical writing ability by different amounts of reading (i.e., 0-5, 6-9, +10 books).

Later in the analysis, multiple regression was also applied in recognizing the predictors of L2 reading proficiency (as seen via TOEIC) when amount of reading, reading speed, speed reading comprehension scores, gender, major, and language skill reported most difficult (e.g., listening, speaking, reading, writing) by the students were submitted for analysis to find the best fitting regression model. Variables on a nominal scale were dummy coded for analysis.

4. RESULTS AND DISCUSSION

4.1. Extensive Reading and L2 Reading Ability

This section queries how in-class ER may have brought any positive influence on students’ reading ability at the university level. To validate results from more than one measure, we examined any changes in students’ reading speed and speed reading comprehension scores in addition to the TOEIC R/C scores. Scores of 203 students were examined when some were absent for the tests. As presented in Table 1, the paired t-test conducted on TOEIC reading comprehension (R/C) scores indicated a significant difference between pre- and post-tests \((p < .05)\) indicating a gain of 7.12. The outcome suggests improvement in the students’ reading proficiency over the period of the extensive reading course, and validates how the ER approach can bring positive outcomes in the Korean university classrooms.

As another means of noting the outcome of ER, paired t-tests were conducted for reading speed (as measured in seconds) and follow-up speed reading comprehension questions (i.e., 10 items). When the alpha level was set at \(p < .025\) with Bonferroni adjustment in order to reduce Type 1 error since both had been produced from the speed...
reading task, the results of both reading speed and speed reading comprehension were significantly different as seen in Table 1. The results overall indicate how student reading speeds have improved while also sustaining L2 reading comprehension ability.

TABLE 1
L2 Extensive Reading and Reading Ability Development

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<td>Pre-ER</td>
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<td>Pre-ER</td>
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<td>15.231</td>
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<td>Pre-ER</td>
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</table>

*Note. R/C: reading comprehension; *p < .05, **p < .025

The findings corroborate those found in previous studies (Cho & Krashen, 1994; Day & Hitosugi, 2004; Hafiz & Tudor, 1990; Lai, 1993; Susser & Robb, 1989; Tsang, 1996), and complement those conducted in the Korean context (i.e., Cha, 2009; Yang, 2010) which were not completely clear on the positive outcomes for reading comprehension. Through the results, it can be suggested that university students who score a mean of 195/495 on the TOEIC R/C (see previous Table 1) would be able to improve reading comprehension over a 12-week period when a minimum of 24 hours of in-class extensive reading (12 weeks × 2 hours) is conducted. Another precondition for this would be to use graded readers, the source of input that is slightly beyond the students’ current level of reading proficiency.

While ER refers to reading a large amount in the second language (Day & Bamford, 2009), the next evolving question was to seek how learners had performed on measures of reading comprehension according to different amounts of reading. This type of information is likely to provide teachers, learners, and other stakeholders an estimate on how much L2 reading needs to occur before the initiation of any improvement in reading ability.

Before examining reading ability according to different amounts of reading, the students’ average amount of weekly reading was calculated based on students’ book record cards. The results indicated that students had been reading an average of 73 pages within their linguistic competence as matched by their Lexile levels. Moreover, based on student

6 A limitation in the calculation of the average number of pages may be that the exact number cannot be accurately calculated since the graded readers vary in their length, the number of words, and pictures on each page. Also, since learners read at different speed, counting the accurate quantity of students’ reading may be problematic as acknowledged in a previous study (Al-Homoud & Schmitt, 2009).
weekly book record cards, the amount of students’ reading during the period of the study could be estimated to be an average of 8 books, and approximately 87,600 to 116,800 words when the average number of words on a page can be estimated to be 150–200 words.\(^7\) Regarding the minimum and maximum number of words the students would have read during the ER sessions, the range as in the amount of books the students read was from 1 to 18 books as shown in Table 2, and this resulted in 1,958 books read by the 249 students. As such, it can be assumed that the weakest students read approximately within the range of 10,950 to 14,600 words\(^8\) whereas the strongest students read about 197,100 to 262,800 words during the ER sessions.

**TABLE 2**

<table>
<thead>
<tr>
<th>Amount of Reading (No. of GR)</th>
<th>Min</th>
<th>Max</th>
<th>Total No. of GR</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.00</td>
<td>18.00</td>
<td>1,958.00</td>
<td>7.86</td>
<td>3.12</td>
</tr>
</tbody>
</table>

*Note. GR: grader readers*

To seek any differences in reading ability according to different amounts of reading, one-way ANOVA was conducted for post-reading speed (measured by number of seconds), post-speed reading comprehension scores, both measured by the speed reading task; and post-TOEIC reading comprehension scores by categorizing the students’ amount of reading into three groups (i.e., 0-5, 6-9, +10 books) (See Table 3).

Table 3 indicates significant differences between reading groups for both reading speed \((F_{(2,246)} = 4.855, p = .009)\) and TOEIC R/C \((F_{(2,239)} = 17.014, p = .000)\), however, not for the post-speed reading comprehension. The mean scores indicates for post-speed reading comprehension that the progression of improved comprehension is not clear between reading groups 6-9 and +10 groups where there was actually a descriptive drop in the level of comprehension, although only of a decimal difference (6.33 to 6.10). A possible explanation for this is that the post-speed reading task, *Life in the Pacific Islands*, may have generally caused more comprehension problems when the Korean university students who participated in the study are prone to have more background knowledge for schema related to the metropolitan way of life.

---

\(^7\) The number of words for the graded readers was calculated by “Average number of books (8) × Average number of pages (73) × average number of words on a page (150–200 words).”

\(^8\) The number of words was calculated in the same way as in footnote 7. For instance, the calculation for the weakest student is by “Number of book(s) (1) × Average number of pages (73) × average number of words on a page (150–200 words).”
TABLE 3

<table>
<thead>
<tr>
<th>Amount of Reading, Reading Speed, Speed Reading Comprehension, and TOEIC R/C</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-reading speed (Sec)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>61</td>
<td>314.72</td>
<td>82.093</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-9</td>
<td>120</td>
<td>280.30</td>
<td>66.172</td>
<td>4.855</td>
<td>.009*</td>
</tr>
<tr>
<td>+ 10</td>
<td>68</td>
<td>280.74</td>
<td>81.454</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-speed reading comprehension test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>61</td>
<td>5.97</td>
<td>1.722</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-9</td>
<td>120</td>
<td>6.33</td>
<td>1.272</td>
<td>1.447</td>
<td>.237</td>
</tr>
<tr>
<td>+ 10</td>
<td>68</td>
<td>6.10</td>
<td>1.437</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-TOEIC R/C test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>59</td>
<td>163.98</td>
<td>64.366</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-9</td>
<td>116</td>
<td>200.73</td>
<td>58.228</td>
<td>17.014</td>
<td>.000*</td>
</tr>
<tr>
<td>+ 10</td>
<td>67</td>
<td>224.70</td>
<td>53.745</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Regarding post-reading speed and post-TOEIC R/C, further analysis with Bonferroni post-hoc tests (See Table 4) indicated for reading speed that there were significant differences between the learner groups who had read 0-5 number of books, and those who had read within the range of 6-9 books (p = .011) during the ER sessions. However, a significant difference in reading speed was not noted between those who had read +10 books and 6-9 books (p = 1.000). The results point to how reading 6-9 books is a prerequisite for students to be able to speed up the reading process or improve their reading fluency, which entails automatic recognition of words, parsing sentences, building a discourse structure, and integrating novel information with existing knowledge. This when calculated for the number of pages would be equivalent to 438 pages (6 × 73 pages) or a range of 65,700 to 87,600 words (6 × 73 pages × 150-200 words). However, as mentioned previously, this is based on the condition that the books read are within the vicinity of the students’ Lexile level or when the reading consists of comprehensible input (Krashen, 1982).
With regard to improvement on TOEIC R/C, as seen for reading speed, there was a significant difference between 6-9 and 0-5 groups resulting in a difference of 36.75 (p = .000) so that the significant difference of 60.72 between the +10 and 0-5 groups did not seem surprising (p = .000). As a whole, the results illustrate that there is a relationship between learners’ amount of reading and reading ability. This result is consistent with those obtained by Chang (2011) and Kirin (2010) where a relationship was found between amount of reading and reading comprehension ability. Students who read large quantities of books gained relatively better scores than those who had read less. Therefore, although a causal relationship cannot be definitely stated, it seems that learners who make constant effort to read extensively are those who are likely to gain improved reading proficiency. However, a pedagogical question for many is how much reading is actually needed for improvement in L2 reading. For instance, in previous research, for criteria on the amount of reading, Hill and Thomas (1988) and Paulston and Bruder (1976), both cited in Day and Bramford (2009), have respectively suggested that the appropriate amount of reading is 30 pages an hour or 50 pages per week, but these guidelines lack detail. According to our analysis in the amount of reading, the prerequisite level of reading for any improvement in reading speed and reading proficiency is 6 books/438 pages (i.e., 6 books × 73 pages) or a minimum of 65,700 words (i.e., 6 books × 73 pages × 150 words) when reading for comprehensible input at the i+1 level.

4.2. Extensive Reading and L2 Lexical Writing Development

This section seeks to examine how the ER classes possibly affected students’ writing ability as seen by the use of different lexical measures. The connection between ER and lexical writing development was tracked with use of the on-line Web VocabProfile where student writing products collected as book reports at the beginning and end of semester
were used for lexical analysis.

At *Web VocabProfile*, they distinguish the students’ use of vocabulary for the 1st 1,000 (K1), 2nd 1,000 (K2), 9 Academic Word List (AWL), 10 and the Type-Token ratio which is a measure used to determine lexical variation (Read, 2000). Excluding 40 students who did not submit book reports as a part of the course assignment, 209 book reports were gathered. As seen in Table 5, the L2 learners’ use of vocabulary seen by different word frequency bands and academic words indicated that the learners had used less words at the K1 word frequency band \(t = 4.313, p < .01\), and more academic words \(t = -4.675, p < .01\) in their final book report summaries. It may be worth noticing that the learners’ use of K1 words decreased while there was more use of academic words, which is an indication of learners’ improved competence to be able to productively use words at the tertiary level for academic purposes (Coxhead, 2000). It can be suggested that the repeated exposure to words in L2 reading contributed to learners becoming relatively more fluent in the productive use of academic words.

**TABLE 5**

<table>
<thead>
<tr>
<th>L2 Lexical Writing Development</th>
<th>(N = 209)</th>
<th>M(%)</th>
<th>SD</th>
<th>(t)</th>
<th>df</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-ER K1 words</td>
<td>79.78</td>
<td>5.55</td>
<td>4.313</td>
<td>208</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>Post-ER K1 words</td>
<td>77.71</td>
<td>6.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-ER K2 words</td>
<td>6.20</td>
<td>2.44</td>
<td>-0.569</td>
<td>208</td>
<td>.570</td>
<td></td>
</tr>
<tr>
<td>Post-ER K2 words</td>
<td>6.32</td>
<td>2.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-ER AWL words</td>
<td>2.13</td>
<td>1.52</td>
<td>-4.675</td>
<td>208</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>Post-ER AWL words</td>
<td>2.94</td>
<td>2.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-ER Type-token ratio</td>
<td>0.52</td>
<td>0.06</td>
<td>-2.656</td>
<td>208</td>
<td>.009*</td>
<td></td>
</tr>
<tr>
<td>Post-ER Type-token ratio</td>
<td>0.54</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. ER: extensive reading; *\(p < .05\)

For the 209 students, there was also a significant increase in the type-token ratio 11 \(t = -2.656, p < .01\) indicating the use of a wider range of different words rather than the tendency to rely on a small stock of words that are frequently repeated. As such, the results

---

9 Note that the 1st 1,000 (K1) and 2nd 1,000 words (K2) are the range of high-frequency words used in English.


11 While being a component of *lexical richness*, the type-token ratio measures lexical variation when calculated by dividing “the number of different lexemes in the text” by “the total number of lexemes in the text” (Read, 2000).
have implications for how learners may be able to improve lexical variety from regular reading occurring at manageable levels (Krashen, 2004; Ponniah, 2011). The results also lend validity to the proposition that composing ability emanates partly, if not largely, from frequent, self-initiated reading, preferably over sustained periods (Tsang, 1996).

Regarding the relationship between different amounts of L2 reading and L2 lexical writing, Table 6 indicates the outcome of writing ability when investigated for different reading groups (i.e., 0-5, 6-9, +10 books). Amount of reading produced different results in the learners’ ability to use academic words \( (p = .000) \). Post-hoc tests with Bonferroni indicated that there were significant differences between all reading groups (See Table 7). The results may suggest how learners who read more number of graded readers were able to demonstrate improved ability in the production of academic words.

**TABLE 6**

<table>
<thead>
<tr>
<th>Reading Amount and Lexical Profiles of Post-Writing Products</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Post-K1 words</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>46</td>
<td>79.387</td>
<td>4.524</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-9</td>
<td>106</td>
<td>77.399</td>
<td>6.320</td>
<td>1.901</td>
<td>.152</td>
</tr>
<tr>
<td>+ 10</td>
<td>64</td>
<td>77.502</td>
<td>6.442</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216</td>
<td>77.853</td>
<td>6.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-K2 words</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>46</td>
<td>6.456</td>
<td>2.360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-9</td>
<td>106</td>
<td>6.246</td>
<td>2.498</td>
<td>.980</td>
<td>.907</td>
</tr>
<tr>
<td>+ 10</td>
<td>64</td>
<td>6.293</td>
<td>3.155</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216</td>
<td>6.304</td>
<td>2.671</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-AWL words</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>46</td>
<td>1.904</td>
<td>1.582</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-9</td>
<td>106</td>
<td>2.850</td>
<td>2.064</td>
<td>10.895</td>
<td>.000*</td>
</tr>
<tr>
<td>+ 10</td>
<td>64</td>
<td>3.723</td>
<td>2.227</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216</td>
<td>2.907</td>
<td>2.115</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-Type-token ratio</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>46</td>
<td>.532</td>
<td>.058</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-9</td>
<td>106</td>
<td>.534</td>
<td>.062</td>
<td>.474</td>
<td>.623</td>
</tr>
<tr>
<td>+ 10</td>
<td>64</td>
<td>.542</td>
<td>.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216</td>
<td>.536</td>
<td>.057</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*\( p < .01 \)
TABLE 7

<table>
<thead>
<tr>
<th>Group (Post-AWL words)</th>
<th>Group Difference (mean)</th>
<th>Std. Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10 - 0-5</td>
<td>0.946</td>
<td>0.357</td>
<td>.026*</td>
</tr>
<tr>
<td>6-9 - 0-5</td>
<td>1.819</td>
<td>0.391</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Note. AWL: Academic Word List; *p < .05

The results are unlike those found in Kirin’s (2010) study where evidence was not clear in the connection between different volumes of reading input and writing production. However, a noticeable difference in the implementation of reading is that all participants in Kirin’s study were given the same books to be read regardless of proficiency levels so that this may have created different levels of interest and comprehension, and L2 written production. This has implications for us in that the use of graded readers is a prerequisite for trying to elicit successful outcomes in the EFL university classroom.

4.3. Predictors of L2 Reading Proficiency

As a follow-up to having investigated the students’ L2 reading ability and its relationship to lexical aspects of L2 writing ability, delineation on a model of L2 reading was needed to tease out potential predictors of L2 reading proficiency. While the students’ end of the semester TOEIC R/C scores were used as the dependent variable, the potential independent variables of interest were the learners’ amount of reading achieved during the 12 week period, learners’ reading speed and speed reading comprehension scores at the end of the ER class, and writing ability as seen through lexical measures. In addition, subject variables such as gender, majors, and language skills reported most difficult were also included in the analysis to seek a model for explaining how different language and subject variables contribute to explaining the learners’ reading proficiency (i.e., TOEIC R/C scores). When multiple regression was conducted, a significant model emerged ($F_{(13,209)} = 5.899, p = .000$). As seen in Table 8, the model explains how amount of reading ($p = .001$), reading speed ($p = .003$), speed reading comprehension ($p = .000$), and Arts, Music, & Physical Ed ($p = .002$) were significant predictors. Writing ($p = .054$) was at a borderline significance level so that this may need to be noted.

An explanation with Unstandardized Coefficients (B) provides a more detailed analysis between the predictors and L2 reading proficiency. Those students with having read one more graded reader were able to demonstrate an increase of more than 4 points (i.e., 4.571) on TOEIC R/C. In a similar way, those who slowed down on reading speed were also those likely to score slightly less on TOEIC (i.e., -.167). Students who
scored a point higher on the post speed reading comprehension test tended to score 11 points more (i.e., 11.213) on the reading proficiency test. While the lexical measures used for analyzing the writing products did not particularly seem to have relationships to L2 reading, students who majored in Arts, Music, & Physical Ed. scored almost 41 points less (i.e., -40.922) on TOEIC in comparison to those majoring in Liberal Arts. Gender did not seem to have a noticeable relationship with L2 reading proficiency.

All in all, the results point to how the amount of ER, that is the number of books read, and the students' sustained ability to read fluently (i.e., assessed by reading speed and speed reading comprehension level) contribute to students' improved performance on L2 reading. In terms of majors, teachers will need to pay more attention to the students from backgrounds in Arts, Music, or Physical Ed. who may have other primary interests. Teachers observing the ER classes will need to make sure that those students are able to select graded readers at matching levels of L2 reading proficiency so that reading is not a demotivating process for them.

### TABLE 8
Predictors of L2 Reading Proficiency

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>148.663</td>
<td>73.710</td>
<td>2.017</td>
<td>.045</td>
</tr>
<tr>
<td>Amount of reading</td>
<td>4.571</td>
<td>1.386</td>
<td>.233</td>
<td>.001*</td>
</tr>
<tr>
<td>Post reading speed</td>
<td>-.167</td>
<td>.056</td>
<td>-.194</td>
<td>.003*</td>
</tr>
<tr>
<td>Post speed reading</td>
<td>11.213</td>
<td>3.002</td>
<td>.238</td>
<td>.000*</td>
</tr>
<tr>
<td>comprehension</td>
<td></td>
<td></td>
<td>3.736</td>
<td></td>
</tr>
<tr>
<td>Post K1 Words</td>
<td>.132</td>
<td>.749</td>
<td>.014</td>
<td>.177</td>
</tr>
<tr>
<td>Post K2 Words</td>
<td>1.613</td>
<td>1.556</td>
<td>.073</td>
<td>.1037</td>
</tr>
<tr>
<td>Post AWL Words</td>
<td>-3.069</td>
<td>1.974</td>
<td>-.109</td>
<td>.122</td>
</tr>
<tr>
<td>Female</td>
<td>-.989</td>
<td>7.830</td>
<td>-.008</td>
<td>-.126</td>
</tr>
<tr>
<td>Arts, Music, &amp; Physical Ed</td>
<td>-40.922</td>
<td>12.929</td>
<td>-.247</td>
<td>.002*</td>
</tr>
<tr>
<td>Natural Science</td>
<td>2.262</td>
<td>10.655</td>
<td>.018</td>
<td>.212</td>
</tr>
<tr>
<td>Engineering</td>
<td>5.263</td>
<td>12.098</td>
<td>.041</td>
<td>.435</td>
</tr>
<tr>
<td>Speaking</td>
<td>-11.888</td>
<td>11.232</td>
<td>-.098</td>
<td>.291</td>
</tr>
<tr>
<td>Reading</td>
<td>-6.061</td>
<td>20.308</td>
<td>-.021</td>
<td>.298</td>
</tr>
<tr>
<td>Writing</td>
<td>-24.706</td>
<td>12.719</td>
<td>-.171</td>
<td>.054</td>
</tr>
</tbody>
</table>

Note. Amount of reading: No. of books; Reading speed: seconds; Reading comprehension: score; K1 words: 1st 1,000 words; K2 words: 2nd 1,000 words; AWL: Academic Word List; Male: dummy variable; Liberal Arts: dummy variable; Listening: dummy variable
5. CONCLUSION

Promoting literacy habits such as extensive reading in EFL university contexts is
admittedly a serious challenge, particularly for practitioners with limited or no access to the
material resources necessary for instituting a comprehensive and effective ER program.
The present study has tried to demonstrate that when the type of limitation is overcome, the
outcome may prove beneficial. The program was equipped with a library of graded readers
to match student Lexile levels and topical preferences and conducted in the form of an in­
class ER program where the instructor was always present as an observer.

The outcome of the 12-week EFL university ER program proved positive outcomes on
all measures of reading ability (i.e., TOEIC R/C, reading speed, speed reading
comprehension). Regarding different amounts of reading which can have pedagogical
implications for both teachers and learners, it was necessary for the students to have read at
least 6 graded readers, or 438 pages when the average number of pages for the readers was
calculated as 73 pages.

The implementation of the ER program also brought positive results for students’
improved performance in the use of academic words and less use of Kl words, the most
basic words of English. In connection to our investigation of students’ improved lexical
profiles or vocabulary size, the argument for learning words from context is persuasively
To this, Grabe estimates that if students read approximately a million words of running text
in a year, and if they know 96–98 percent of the words, they will be exposed to 20,000 to
40,000 new words (e.g., one million words equals 10–12 shorter novels, or 65 graded
readers.) Nation (2001) also points out that if a student reads 100 wpm for 45 minutes per
day, and for 222 days a year, the reading will amount to just under one million words in a
year. Nation goes onto explain how vocabulary learning can be expedited when there is
“some deliberate attention to vocabulary” (p. 238).

To bring a more integrated view of the different variables that may contribute to L2
reading proficiency, the measures of reading, lexical writing, and subject variables were
submitted for analysis when the TOEIC R/C scores was fixed as a dependent variable. All
measures of reading ability, that is reading speed and speed reading comprehension,
contributed to L2 reading proficiency. However, students that are affiliated with studies in
Arts, Music, or Physical Ed. clearly lagged behind the Liberal Arts majors so that the
students may need more attention in choosing graded readers to suit their topical
preference and in helping the students to cope with challenges they have not experienced in
the process of reading.

Taken as a whole, the present study, as well as other previous empirical studies, have
proved that for programs that expect students to develop reasonably advanced academic
reading abilities, there is no escaping the simple fact that one learns to read by reading, and by reading a lot. Accordingly, the present study suggests integrating the in-class ER program in university English classes based on several important pedagogical guidelines.

First, Day and Bamford (2009) has emphasized that reading materials should be attractive to students in order to increase their pleasure of reading English books, and success in an ER program depends on distributing books that learners are interested in reading (Nation, 2009), that is, various topics so that the students would be able to widen their choice of books. Second, follow-up activities without interrupting students’ reading time too much like short reading comprehension quizzes or writing a book report are beneficial for both a teacher and students in terms of checking whether or not the students have read English by appropriately understanding the content of the books. Third, the in-class ER program can encourage learner autonomy. In other words, students would be able to build up voluntary learning while choosing what they want to read and reading it as many as possible without a teacher interrupting. Therefore, the role of the teacher in the ER class is important as a good model of a reader rather than as a controller of the class. Monitoring of learners’ progress via students’ book record cards right after every class is also effective for checking on the students’ flow of reading or spotting problems. For example, based on the book record cards, the teacher in the ER class can encourage them to choose books from the next level when noticing that some students are staying at one level only (Day et al., 2011). Lastly, when using graded readers in the ER class, accurate reading levels of students should be ascertained so that the students’ reading materials appropriately match their reading abilities. However, few previous ER empirical studies have offered an accurate measurement for students’ reading level, and rather allowed students to choose books at their estimated English level. Also, it is crucial for students not to worry about unknown or difficult words as seen in one of the ten principles of the ER approach (Day et al., 2011). This is another reason why most experts recommend students to know 98-99 percent of the words in a text (three to six unknown words on a 300-word page) since ER will require some level of fluency and efficiency in processing words and sentences (Grabe, 2009; Nation, 2001).

Although the findings on the effects of ER class have been presented in the current study, further studies are encouraged to improve the limitations of the study. First, longitudinal research of the ER class is needed to achieve more reliable results since the present study comprised of only 12 weeks for the actual ER. Second, ER studies validating results through speaking and listening would also be noteworthy for the development of English listening and speaking language skills. For instance, by using audio versions of books or oral reports in English based on what students have read would help reveal the link between ER and those skills. Lastly, the current study is limited in terms of assessment since the ER classes were based on a credit course. Since the evaluation of the students was
norm-referenced, this caused competition among the students. Jeon (2008) mentioned that "an excessive reading competition among students may hinder them from reading for pleasure..." (p. 74). That is, in order to maintain students' pleasure of reading English books without much competition for the course grade in the in-class ER program, designing an appropriate evaluation method before beginning the ER course should be considered.

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Applicable levels: Tertiary, secondary

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Received in September 2013
Reviewed in October 2013
Revised version received in November 2013