The Effect of Incorporating the Extensive Reading Approach into Vocabulary Instruction on Learners' Lexical Depth in an EFL Context

Mohsen Jafarpour
Payame-Noor University of Rasht, Guilan, Iran
E-mail: mohsenjafarpour.64@yahoo.com

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Abstract
Inspired by current issues in lexical depth and previous extensive reading (ER) investigations, this study examined the effectiveness of ER approach in lexical depth of young EFL students in Iran. In the present study, two male classes were formed. One of these two classes was randomly selected as a treatment group and another one as a control group. The treatment group was provided with vocabulary instruction through the ER approach. However, the control group was taught traditionally and without the ER approach. Students in treatment group were provided with ER approach for 17 weeks. At the end of the study, a test of lexical depth was administered to both groups and a t test was used to compare means of test scores between groups. The results indicated that ER is an effective approach to improve students' lexical depth.

Keywords: Extensive reading approach, Lexical depth, Word association task

1. Introduction
There is an agreement among researchers that lexical knowledge involves more than being able to remember the meaning of a specific word (Nation, 1994). Generally, lexical knowledge is defined as a combination of vocabulary breadth (size) and vocabulary depth (quality) (Shen, 2008; Qian, 1998). Vocabulary breadth refers to the number of words whose meaning is known to a learner. However, vocabulary depth refers to a learner's knowledge of various important aspects of a given word (ibid). Simply, it relates to how well one knows a word (Marzban & Hadipour, 2012; Shen, 2008). In fact, lexical depth focuses on the idea that learners need to know more than just a superficial understanding of the meaning for words (Shen, 2008).

The necessity of developing lexical depth is inevitable for EFL learners. However, how to develop vocabulary depth in an effective way itself is a tricky question which needs to be considered with caution. Mansoory and Jafarpour (2014, p.149) argue that "in vocabulary instruction, in many cases, traditional teaching methods do not bring about native-like competence of English vocabulary so complements are necessary". Xiao and McEnery (2006) believe that vocabulary should be taught in a context that helps learners to be aware of its exact meaning and usage.

Over the past decades, there has been a great deal of interest in ER and many language learners and teachers have discovered that it is the best way for getting great amount of language input. Although vocabulary instruction is a hot topic and much research has been focused on some specific traditional vocabulary teaching and despite well accepted and practiced vocabulary teaching, no specific study has been devoted to see how the teaching vocabulary through the ER approach will affect the learners' vocabulary depth in an EFL context, and the depth dimension of vocabulary knowledge has been largely overlooked. Therefore, this paper attempts to fill the gap and supplement the existing studies of vocabulary instruction. Specifically, it will be shown how vocabulary instruction through the ER approach in a male EFL class will increase readers' lexical depth. The aim is to provide information about incorporating the ER approach into vocabulary instruction in an high-intermediate level EFL context.

1.1 Extensive Reading
From when we learn how to read till the end of our life reading is all around us. Although both intensive and ER are needed, most EFL teachers just pay attention to intensive reading and have ignored the use of ER in their reading curriculum. As Hamp-Lyons (1983) puts it:

Most courses in English for academic purposes concentrate on teaching traditional reading comprehension skills at the intensive level, and do not offer help to the students with the area of reading which frequently causes the non-native student the greatest difficulty in his English-medium university courses: the sheer volume of reading required, which often overwhelms the foreign university student. (p.303)

ER has been technically defined slightly variably by scholars, and many researchers have offered different definitions of it. According to Rodrigo et. al. (2007) ER is reading in large amounts in order to get general understanding of text or is just for enjoying the reading process. Hitosugi and Day (2004) define it in following way:
In an ER approach, students read large quantities of books and other material that are well within their linguistic competence. Students select which books they are interested in reading, and read at their own speed. Student self-selection gives this approach a great deal of flexibility, which caters to the different needs and interests of individual students and allows them to develop their foreign language (FL) competence at their own pace. (para.5)

In studies by Bell, 1998; Day and Bamford, 1998; Renandya, et al., 1999; and Walker, 1997 (cited in Leung, 2002, Method, para. 5-9) following characteristics of ER approach have been established:

1. Students read as much as possible.
2. Students read a variety of materials of their interest.
3. Reading materials are well within students' linguistic competence.
4. Students choose what they want to read and the purposes of reading are usually related to pleasure, information, and general understanding.
5. Follow-up tasks should be simple, encouraging, relate to students' readings, and be done in a low anxiety environment.

More comprehensively, Day and Bamford (2002, para. 6-28) listed ten principles that define a successful ER program for L2 learners and encourage teachers to use the principles as a tool to examine their beliefs about reading in general and extensive reading in particular, and the ways they teach reading:

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

In a comprehensive study by Mason and Krashen (1997) three experiments were done. In Experiment 1, “reluctant” EFL students at the university level in Japan performed extensive reading for one semester. At the beginning of semester they were far behind traditionally taught comparison students on a cloze test, but nearly caught up to them by the end of the semester. In Experiment 2, students who did extensive reading outperformed ones who were taught traditionally. In Experiment 3, extensive readers who wrote summaries in English made significantly better gains on a cloze test than a comparison class that devoted a great deal of time to cloze exercises. These three experiments confirmed the value of extensive reading in English as a foreign language.

Carrell and Carson (1997) in their investigation in an EAP reading curriculum approached both intensive and extensive reading through Task-Based Language Teaching (TBLT). They argued that both intensive and extensive reading are necessary to make students ready for the task and texts they may encounter in college. It was shown that intensive reading with a focus on skills/strategies instruction bring about positive effects on second language reading. At the same time, students need practice of extensive reading in order to orchestrate, coordinate and apply skills/strategies that have acquired through intensive reading over the larger texts and multiple reading sources.

Because most studies focus on the extensive reading in classroom context, they are not able to provide a clear picture of the process of the doing extensive reading. However, Ching (2002) in a qualitative study examined the impact of extensive reading on an adult's self-study of Japanese over 20 weeks. Data were collected from multiple sources (triangulation), including a learner diary, audio-recordings from several private tutorial sessions, and vocabulary tests. The results showed that extensive reading can improve vocabulary acquisition and reading comprehension, and enhance a positive attitude toward reading. The study suggested that the key element in the success of extensive reading is having access to a large quantity of reading materials geared to an individual's level of proficiency and interest. He concluded that if appropriate reading materials are available, it is possible that a beginning foreign language learner can get the benefits of extensive reading.

An ER program was incorporated into a second semester Japanese course at the University of Hawai‘i in a study by Hitosugi and Day (2004). Their ten-week program showed that the students improved their scores according to a traditional measure of reading comprehension. There was also an increase in positive responses on the affective questionnaire that measured attitudes toward and motivation for learning Japanese from the beginning to the end of the semester. In addition, since the books they used were what Japanese children read, the students gained valuable cultural information. It was suggested that an ER program should be an integrated part of a regular foreign language curriculum in order to enrich students' language learning.

Extensive reading appears to lead to substantial vocabulary learning and many researchers have confirmed the belief of incidental vocabulary learning through extensive reading. However one of the limitations of incidental learning is that the learner may not try to guess the meaning of new words. Pigada and Schmitt (2006) by doing a case study of a 27-year-old learner of French examined whether an extensive reading program can enhance lexical knowledge. Their study assessed a relatively large number of words (133), and examined if one-month period of extensive reading...
improved knowledge of these target words' meaning, spelling, and grammatical characteristics. Simplified materials were preferred instead of authentic ones to offer L2 learners appropriate conditions for word learning. A one-on-one interview was conducted. The study showed that vocabulary acquisition varies according to how often words are encountered in the texts. The results also showed that knowledge of about two-thirds of target words was enhanced. Meaning and grammatical knowledge were also enhanced, to some extent. For spelling, there was relatively strong enhancement, with a small number of exposures. All in all, the study showed that more vocabulary acquisition is possible from what was supposed.

In another study, Iwahori (2008) explored the effectiveness of ER on reading rates of high school students in Japan. Students were provided with graded readers and comic books as homework for 7 weeks. The results of pretests and posttests of reading rate and language proficiency indicated that ER is an effective way to improve students’ rate and general language proficiency.

Kweon and Kim (2008) selected twelve 21-year-old Korean learners (11 male and 1 female) of English to read authentic, unsimplified texts that were uncontrolled for vocabulary and grammatical complexity. The learners were tested on their knowledge of vocabulary before reading (pretest), immediately after reading (Posttest 1), and 1 month after Posttest 1 (Posttest 2). The results of the tests showed significant differences in student understanding between the pretest and Posttest 1 but no significant differences between Posttests 1 and 2, and most words acquired were retained without much attrition. Among the 3 different word classes that were used, more frequent words were more easily learned than less frequent words across all 3 word classes. However, when the meanings of them were vital for meaning comprehension, lower frequency words were better learned than words of higher frequency.

Development of general reading ability and lower-level linguistic ability was examined in a study conducted by Yamashita (2008). Improvement from a pretest to a posttest was found to be significant for reading ability, but that was not the case for linguistic ability. The results suggest that the effects of extensive reading might be manifested more quickly in general reading skills than in L2 linguistic ability, at least for adult L2 learners.

To those principles aforementioned, following insights are revealed for ER teachers:

1. Some researchers argue that is not easy to observe the benefits of extensive reading in short term (Yamashita, 2008).
2. Extensive readers at the outset should be dependent to their teachers and progressively become autonomous.
3. It is necessary to make sure that learners are reading at the right level, that they are kept motivated, ant that they are enjoying their reading (Paran, 2005).
4. Extensive reading is not put in isolation and other skills are connected with it (Paran, 2005).
5. Extensive reading is used to improve reading and language skills for children in their first language (L1) and for adults in a foreign or second language (L2) (Rodrigo et. al., 2007)
6. Extensive reading program for succeeding needs a well-equipped library containing a variety of genres, interesting titles and multiple books for each title, and different topics to (Rodrigo et. al., 2007).
7. In selecting reading materials it is up to learner to decide what to read and ER teachers should consider the learners' ages, interests, and linguistic levels(Rodrigo et. al., 2007).
8. Extensive reading program should be integrated with other programs (Hitosugi & Day, 2004).

It seems that extensive reading is underestimated and the power of ER is more than what is mentioned and as Renandya and Jacobs (2002) argue:

Beyond powerful gains in language proficiency, reading offers more. It offers a richer understanding of the world and a place in the ongoing, worldwide dialogue on a universe of topics open only to those who are literate and who exercise their literacy. Thus, ER represents much more than teaching devise. It represents a lifelong habit, a habit that brings with it the power and wealth that language offers in such large qualities. (p.300)

1.2 Lexical Depth

Dóczi (2006) argues that exploring the depth of word knowledge involves "examining all the word knowledge types (spoken form, written form, grammatical and collocational behaviour, frequency, register, meaning and associations) with a special emphasis on word associations" (p.118). He also claims that in order to learn a new word, all kinds of necessary information for learning should be clarified.

In a comprehensive study, Qian (1998) contended that "depth of lexical knowledge is not a solid mass whose qualities cannot be differentiated. In other words, it is feasible to characterize different levels of lexical Knowledge" (p.22). In fact, lexical depth involves many aspects. He claims that aspects of the lexical depth include the following: pronunciation and spelling, morphological properties, syntactic properties, meaning, register or discourse features, and frequency. He concludes that according to this working definition of vocabulary knowledge the following are all main aspects of the depth dimension: morphological properties, lexical meaning, and lexical collocation. He also claims that, regarding components of vocabulary knowledge, L1 researchers have noted the importance of lexical depth in reading comprehension, but this is not the case in L2 research (Qian, 1998).

In a study conducted by Shen (2008), the relationships between the breadth and depth of vocabulary knowledge and EFL reading comprehension were reviewed. It was shown that depth of vocabulary knowledge had a significant
relationship with the prediction of scores on reading comprehension, and that the prediction provided by lexical depth is stronger than the prediction provided by the breadth of vocabulary knowledge.

Dóczi (2006) states that

researching depth of word knowledge is complex and time-consuming as it is extremely difficult to investigate all the components. Furthermore, there is still a lack of appropriate measures for assessing the various kinds of word knowledge and research needs to be longitudinal in order to show vocabulary development. (p.122)

1.2.1 Word Associations Test

According to Marzban & Hadipour (2012), measuring depth of vocabulary knowledge is more difficult than measuring vocabulary size. Therefore, "measures capable of assessing depth of vocabulary knowledge effectively are urgently needed" (p.5297). The basic technique in order to explore the lexical network is through word association tasks (WAT) (Read, 2004; mentioned in Dóczi, 2006).

WAT was developed by Read (1993, 1998) to measure the learner's lexical depth, which is based on 2 relationships among words: meaning (pragmatic), collocation (syntagmatic). The WAT consists of 40 items; each item includes one stimulus word with two boxes (one with 4 adjective, another with 4 nouns). Adjectives are synonyms with the stimulus word and nouns are collocations of the stimulus word. Each item has 4 correct answers. An example taken from the instruction part of the test is provided below:

**Sudden**

| beautiful □ | quick ■ | surprising ■ | thirsty □ | change ■ | doctor □ | noise ■ | school □ |

There are several advantages to use word association tasks: it is a simple and quick procedure, it provides much richer data about the respondent than any other traditional vocabulary test (Schmitt, 1998b; mentioned in Dóczi, 2006). Hughes (2003) states that the best technique for testing vocabulary recognition ability is multiple choice one because distracters are easy to make, there is no harmful backwash effect and guessing the meaning of vocabulary is something that is recommended. Scoring is perfectly reliable, rapid and economical, too.

According to Qian (2002)

in language-testing context, which favors question types that would produce a positive washback effect on language teaching and learning, depth of word knowledge by assessing knowledge of polysemy and collocation instead of just single meanings of target words is superior to the breadth of word knowledge. (cited in Marzban & Hadipour, 2012, p.5299)

Consequently, the present study seeks to fill the gap and supplement the existing studies of lexical depth literature by reporting on the following research hypothesis:

1- Incorporating the ER approach into instructional curricula particularly into vocabulary instruction has a significant effect on learners' lexical depth in an EFL context.

2. Method

2.1 Participants

Forty high-intermediate students participated in this study. All participants were studying English at Farhang English Institution in Talesh, Iran, and were native speakers of Persian. The students were divided to two (twenty-student) classes. One of these two classes was randomly selected as a control group and another as a treatment group. Gender was not considered as a moderator variable in this study. English was the medium of instruction in these classes.

Participants' ages were 16 to 18, and they were all male, high school students. They had already studied English for 4 to 6 years; with a mean of 5 years. They had studied the let's go series for two years and Interchange series for three years and had just entered the Passage series, which is a higher level than Interchange series and the learners were to know at least 3000 English words. The main reason for choosing these subjects was that they attended English classes six terms per year, six weeks per term, and three sessions per week. In other words, they took about 150 hours of English classes for one year. Thus, they had a greater chance to improve their lexical depth. The coursebook that they were studying was passages 1 (Richards, 2008). The classes were held three times a week for 4 months and each session was 90 minutes. However, the class practiced vocabulary twice per week. Both groups were taught by the same teacher.

2.2 Materials

A Michigan Test of English Language Proficiency (1997) was administrated at the beginning of the study to assess the participants' level of language proficiency.

The validity of this test was already presupposed. The reliability index, as estimated through Kuder and Richardson formula (KR-21), was reported to be 0.89.

In order to measure the lexical depth, Read's WAT (1998), which had a content at a level similar to what students had at their level of study, was selected. There was no penalty for guessing.
2.3 Treatment

In the present study, the students in treatment group were provided with traditional vocabulary instruction, plus graded readers as both class work and homework. They were also taught how to read extensively.

To create an ER-friendly environment, the institution was equipped with a library of different books. Graded readers were chosen from publishers such as Oxford University Press, and Pearson Longman, with a range of basic vocabulary from 200–1,000 words. In addition to graded readers, students were provided with some story books. About eighty graded readers and 20 story books, totaling 100 books, were provided for the 20 students in treatment group. Thus, students could choose books from a range of topics that they were interested in. During the vocabulary sessions, some books were provided by the students and the teacher to read extensively.

When borrowing books, students wrote their name and the title of each book taken in the loan notebook. Students were asked to write a book report as a way of checking the amount of reading completed. In their reports, students wrote the title of the book and a very brief comment in English. Based on their book reports, the teacher interviewed all the participants in different stages in the middle of the study period so that their progress could be checked and advice could be given. Moreover, in an unstructured interview that followed the test, it was confirmed that they had followed the plot of all the books perfectly well and they reported that the books were easy enough for the reading to be pleasant. Subjects were allowed to speak in either English or Persian, whichever allowed them to express their ideas more clearly. On a random page of some students, the participants found about one unknown word in every thirty words.

In control group, however, vocabulary was taught traditionally and without ER.

2.4 Procedure

Before administering the pretests, students in both groups read a consent form that explained the purpose of the study and they agreed to participate. After 4 months instruction, the WAT test, which consisted of 40 multiple-choice items, was given to the both classes. Participants were required to answer the test in 30 minutes.

2.5 Data Collection and Data Analyses

At the beginning of the study, the Michigan Test was administered to 60 participants, determining their proficiency level, in order to choose homogenous students. Thus, those students (40) who performed about one standard deviation above and below the mean on the test were chosen as homogenous high-intermediate students. In the next step, and after a time period of 4 months, Read's WAT (1998) was administered to the target groups (40 EFL learners).

In the present study, the aim, regarding the testing section, was to assess the learners' receptive knowledge of lexical depth at the end of the study. Therefore, Read's WAT (1998) was chosen. However, to avoid cheating, two versions of the same test were constructed, which the only difference between them was the order in which they appeared. In each example, there were four correct answers. However, there was not a consistent number of correct answers on the left or on the right. The students were just supposed to try to find four related words for each item. They were given a time limit of 30 minutes to answer the questions. Having taken the test, each student was given a mark out of 160- one score for each correct answer.

In this study, there was one dependent variable (lexical depth) and one independent variable (a 17-week vocabulary instruction through the ER approach). There are four assumptions for a t test: (a) independence of groups, (b) independence of observations, (c) normality of the distributions, and (d) equal variances (Brown, 1992, pp. 644–645). The distribution can be described as normal. All of these assumptions for this statistic were met. To compare means of the test between the groups, independent t test was used. In this calculation, the null hypothesis of no difference between groups means was chosen. The alpha level was set to .05.

3. Result

Statistics for WAT score, for both control and treatment groups, are presented in Table 1. In control and treatment groups, the means on WAT scores are 83.95 and 98.05, respectively. Similar differences in minimum, maximum, and sum scores were also found. The standard deviation (SD) is almost the same (13.748 and 13.829). The two distributions had neither significant skewness nor kurtosis problems.

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<td>WAT.tre</td>
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Table 2. Independent samples test

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Table 2 shows the result of an independent *t* test of WAT scores between the control group and treatment group (M = -14.100, at a 95% confidence). It shows that the difference is statistically significant, *t* (38) = -3.234, at *p* < .05, 2-tailed. Therefore, the null hypothesis of no difference between group means was rejected. That is, the average difference of -14.100 between WAT scores of control group and treatment group was statistically significant. This suggests that the students in treatment group increased in their lexical depth to a statistically significant degree compared to control group in the 4-month period, during which they engaged in learning vocabulary through the ER approach.

Figure 1. The comparison of each group's mean scores

Figure 1 shows the comparison of control and treatment groups' mean scores, where no.1 is control and no.2 is treatment group.

4. Discussion

The results of the present study showed that high school students' lexical depth improved after a 17-week ER treatment. However, to appropriately address the results of reading rate, they should be interpreted with caution.

4.1 Differences in vocabulary choice appropriateness test scores

The difference in students' knowledge of lexical depth between control and treatment groups is meaningful because the difference is large. Therefore, the results of the present study supported the research hypothesis that high school students' lexical depth would improve through ER.

Possible explanations for the differences between groups may be found by considering the following two factors: (a) participants' expectations, and (b) measurement. First, students may have expected some improvement in their lexical depth after the treatment. This is because the purposes of the study and of ER instruction were explained to them before the study. In addition, the consent form they read revealed the purpose of the study. Second, the results could be different depending on the way they were measured. In this study, Read's (1998) WAT was selected and the scores of students in answering to the test were considered as a method for measuring knowledge of lexical depth.
5. Conclusion

5.1 Implications and Recommendations for Teaching

The first implication is that ER is a helpful way for improving language learners lexical depth. Thus, along with intensive reading, extensive reading should be incorporated into instructional curriculum, plus it should be practiced and taught during class sessions.

As the study took a 4-month period, it can be concluded that the effect of ER is significant in improving lexical depth in a long term period.

The pleasant of reading increases more as learners read extensively. In an unstructured interview that followed the study, it was discovered that learners enjoyed reading more when reading extensively.

5.2 Limitations and Delimitations

All participants were male learners. No female learners were able to participate in this study for institutions in Iran are not allowed to hold mixed classes.

Only students of English Language institution of Farhang participated in the study.

5.3 Suggestions for Future Study

This study used lexical depth. Future researchers may work on other parts vocabulary knowledge such as breadth. The test and study were in receptive mode, further research can investigate lexical depth in a productive mode.

Further research might be conducted on female learners, and/or using extensive interviews or case studies as a technique for data collection, and/or using different (numbers of) books.

References


