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Effects of different text difficulty levels on EFL learners' foreign language reading anxiety and reading comprehension

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Abstract

This study aimed to examine the effects of different text difficulty levels on foreign language reading anxiety (FLRA) and reading comprehension of English as a Foreign Language (EFL) learners. To this end, 50 elementary EFL learners were selected from two intact classes (n = 25 each). Each class was assigned to a text difficulty level (i.e., 'i + 1' and 'i - 1') in which the participants experienced extensive reading at different levels of difficulty for two semesters. A reading comprehension test and the Foreign Language Reading Anxiety Scale (FLRAS) were administered before and after the treatment. The results revealed that both text difficulty levels significantly improved the participants' reading comprehension. The findings also showed that, at the end of the study, the 'i + 1' group's FLRA increased, while that of the 'i - 1' group decreased.

Keywords: extensive reading, EFL learners, foreign language reading anxiety, text difficulty level, reading comprehension

Reading is viewed as a crucial skill for foreign language learners to improve their language ability (Chiang, 2015). Reading is defined as "a fluent process of readers combining information from a text and their own background knowledge to build meaning" (Nunan, 2003, p. 68). It provides opportunities for foreign language learners to be exposed to English in situations that language input is quite limited (Lao & Krashen, 2000; Wu, 2012).

In recent years, extensive reading (ER) has received special attention as an effective and promising way of developing foreign language abilities (Yamashita, 2013). ER intends "to develop good reading habits to build up knowledge of vocabulary and structure and to encourage a liking for reading" (Richards & Schmidt, 2010, p. 194). The main goal in ER is to arrive at a general understanding of what is read (Richards & Schmidt, 2010). ER is for general

understanding in which "the minimum 95% comprehension figure" (Meng, 2009, p. 134) is acceptable and the reading speeds are below 100 to 150 words per minute (Mikeladze, 2014). Indeed, some studies (e.g., Bell, 2001; Chiang, 2015; Hitosugi & Day, 2004; Iwahori, 2008; Leung, 2002; Tanaka, 2007) have reported that ER significantly improved foreign language reading comprehension and general proficiency.

Among many affective factors influencing foreign language reading, anxiety has been found to have a debilitating effect (Saito, Horwitz, & Garza, 1999). Some scholars (e.g., Huang, 2001; Yamashita, 2004; Zhao, 2008) have acknowledged the negative effect of anxiety on reading in a foreign language. However, Mills, Pajares, and Herron (2006) found no significant effect of foreign language reading anxiety (FLRA) on English as a foreign language (EFL) learners' performance. Moreover, ER has revealed to lower the EFL learners' reading anxiety (Yamashita, 2013).

One of the sources to provide language input for EFL learners is through ER (Day & Bamford, 1998; Krashen, 1982). According to Krashen (1982), the input to which learners are exposed should be a little beyond their current level of competence, '*i* + 1,' in which '*i*' refers to the current language ability of learner, whereas '1' refers to the input that is slightly beyond the learners' current language ability. On the other hand, Day and Bamford (1998) offered a different model on the difficulty level of the input. According to this model, ER is beneficial if it provides language learners with input which is slightly below their current level of competence (i.e., '*i* - 1'). This way language learners can quickly build up their reading confidence, reading fluency and build sight words and high-frequency words.

However, a review of the literature reveals that there is little research on the effects of these two perspectives (i.e., '*i* + 1' and '*i* - 1') on EFL learners' reading comprehension and FLRA. To fill in the existing gap, the present study aimed to shed light on this issue by investigating how ER through '*i* + 1' and '*i* - 1' materials may influence EFL learners' reading comprehension and FLRA.

Literature Review

Extensive reading

Reading extensively is an individual activity which is based on the learners' interest (Nation, 1997). ER improves reader's reading skills and it is easy to teach EFL learners to read better through ER which is enjoyable to them (Nuttal, 2000). The main goal of an ER program is to provide a situation for learners to enjoy reading a foreign language and unfamiliar authentic texts silently at their own pace and with adequate understanding (Day & Bamford, 1998). ER is supported by Krashen's (1982, 1994) input hypothesis, affective filter hypothesis, and pleasure hypothesis.

According to Krashen's (1982) input hypothesis, sufficient exposure to comprehensible input is necessary for language learners to acquire language. Based on this hypothesis, the input to which learners are exposed should be a little beyond their current level of language competence, i.e., '*i*

+ 1.' Based on this hypothesis, when learners frequently and repeatedly meet and focus on a large number of messages (input) which is a little beyond their level of competence, they gradually acquire the forms. Moreover, according to Krashen's affective filter hypothesis (1982), language acquisition happens in low-anxiety situations. Foreign language learners with a low affective filter (e.g., anxiety) will gain the language acquisition or comprehension more easily (Huang, 2001). In the same vein, Krashen (1994) proposed the pleasure hypothesis, arguing that the pleasurable activities are beneficial and facilitating for language and literacy development. According to this hypothesis, ER provides a low-anxiety situation for learners to learn a foreign language. Krashen's hypotheses have persuaded various universities and institutions to do research in ER and use ER programs in foreign language teaching (Chiang, 2015).

Day and Bamford (1998), on the other hand, proposed a new model which is different from Krashen's (1982) input hypothesis. According to this model, ER is beneficial if it provides the language learners with input which is slightly below their current level of competence (i.e., '*i* - 1'). According to this model, '*i* - 1' provides a situation for automaticity training and developing a large sight vocabulary rather than learning new target structures (Mikeladze, 2014). In fact, '*i* - 1' is viewed as the learners' comfort zone where language learners can quickly build up their reading confidence and reading fluency (Chiang, 2015).

Previous studies have examined the effects of ER on EFL reading comprehension and vocabulary learning. Bell (2001) conducted a two-semester study on young adult students at the elementary level in Yemen to compare the effects of ER and intensive reading on reading speed and reading comprehension. This study was conducted over two semesters. The researcher divided students into two groups: an experimental group (n = 14) and a control group (n = 12). The experimental group received an ER program and read graded readers; these students had access to 2000 graded readers in the British Council library. On the other hand, the control group received the intensive reading program, read short passages and completed the tasks. The researcher measured students' reading speed by using two reading tests, and for measuring their reading comprehension he used three different texts with three types of questions (cloze, multiple-choice, and true-false). The two groups developed both in speed and reading comprehension, but the ER program based on graded readers was much more beneficial to the development of reading speed than the intensive reading program. The results of the reading comprehension test also showed that the learners in the extensive group received higher scores than students in the intensive group.

Chiang (2015), recently, conducted a study on 54 non-English freshmen majors to collect quantitative and qualitative data about their reading comprehension and attitudes toward English during one year. All of them were at the high-intermediate level. The researcher used the reading section of the English Placement test to determine students' reading comprehension levels. Then, the researcher adopted the input hypotheses proposed by Krashen (1982) and Day and Bamford (1998), i.e., '*i* + 1' and '*i* – 1.' The participants were randomly divided into two classes ('*i* + 1' and '*i* - 1' reading groups). The Oxford Bookworms Series were selected as the reading materials. The participants in the '*i* + 1' group read graded readers higher than their levels (5 and 6), whereas the participants in the 'i - 1' group read graded readers lower than their levels (3 and 4). In addition to the reading test, the researcher used a reading attitude survey to measure students' attitudes toward English. After one year of ER intervention, the study indicated that the reading

attitudes of the '*i* - 1' group increased significantly, but the '*i* + 1' group had no significant difference before and after the study. Moreover, the results showed that ER significantly improved the participants' reading comprehension and general proficiency regardless of the text difficulty.

Foreign language reading anxiety (FLRA)

Affective factors like anxiety can explain some variances in foreign language reading performance (Bernhardt, 2005). FLRA is a kind of anxiety which readers experience in reading foreign language texts (Saito et al., 1999). It is "the feeling of apprehension and worry when learners have to read in a non-native language" (Rajab, Zakaria, Abdul Rahman, Hosni, & Hassani, 2012, p. 363). Some scholars (Dialami, 2013; Guimba & Alico, 2015; Jafarigohar & Behrooznia, 2012) found that there was a significant negative relationship between FLRA and reading comprehension among EFL learners. On the contrary, some studies found no significant relationship between FLRA and reading performance (e.g., Brantmeier, 2005; Mills et al., 2006). These inconclusive results imply that the relationship between FLRA and reading performance could be affected by reading task types and reading text difficulty.

Saito et al. (1999) first developed a questionnaire called the foreign language reading anxiety scale (FLRAS) to measure the level of FLRA. The FLRAS contains 20 items, each of which is answered on a 5-point Likert-scale, ranging from *strongly agre*e to *strongly disagree*. The total score of the FLRAS is ranged from 20 to 100. Saito et al. (1999) also hypothesized that the level of FLRA varies by target languages. In other words, the level of FLRA can depend on specific target languages and specific writing systems. Saito et al. (1999) conducted a study on 30 intact first-semester classes of Spanish, Russian, and Japanese (383 learners) and offered a scale for its measurement (FLRAS) to measure learners' FLRA. The results showed that the levels of FLRA varied by target language and seemed to be related to the writing systems of the target languages. Japanese students were the most anxious when reading, followed by the French students and the students of Russian experienced the lowest levels of FLRA. In addition, they reported that the learners' FLRA levels increased with the difficulty of the reading in foreign language, and their grades decreased in their levels of FLRA and general foreign language anxiety.

Sellers (2000) carried out a study to examine (a) the effect of language anxiety on reading comprehension and recall of students, and (b) the effect of language anxiety on the reading process itself. To this end, 89 participants, all students in two different levels of Spanish at a large university, were selected. Participants were divided into two levels: Level 1 included 53 students enrolled in a third-semester Spanish course; Level 2 consisted of 36 students enrolled in an advanced oral expression course. Each participant first completed two anxiety assessment scales to assess each participant's thoughts while reading four different non-literary reading passages (such as magazines, newspapers, etc.). In the study, he explored that FLRA is a distinct variable in foreign language learning. Furthermore, the participants with higher levels of overall foreign language learning anxiety reported higher levels of FLRA. The participants reported that they are somewhat anxious about foreign language reading compared with other activities. The study also showed that the participants with higher levels of anxiety recalled less passage content than others. Moreover, the results revealed that FLRA negatively influenced the participants' reading performance.

In the same vein, Huang (2001) investigated the effects of foreign language anxiety on reading in English. The participants were 236 Chinese university students enrolled in English classes. Saito et al.'s (1999) FLRAS was administered to estimate the students' foreign language anxiety. The findings of the study revealed that Chinese students experienced FLRA. The findings indicated that FLRA negatively influenced reading comprehension and reading cognitive process.

Although most studies have shown that learners experience reading anxiety when they encounter a reading passage in the target language, some other studies have represented that FLRA is not much of a concern to advanced language learners.

Brantmeier (2005) investigated the relationship between anxiety and second language (L2) reading comprehension among 92 advanced level Spanish learners. The results revealed that learners at the advanced level generally do not feel anxious about reading in a second language. Moreover, the participants were more anxious about post-L2 reading tasks (both oral and written) than the act of reading itself. It was also concluded that anxiety about reading at the advanced level may not be a function of reading itself, but rather a function of oral or written reading comprehension tasks. In the same line, Zhao (2008) examined the FLRA among Chinese students in the United States. The participants of this study were selected from the students learning Chinese at Florida State University. The results of this study showed that the level of FLRA was similar to general foreign language anxiety between Chinese learners. She found that unfamiliar scripts, unfamiliar topics and worry about the reading effect were the main sources of FLRA. Finally, there was a negative correlation between FLRA and reading performance.

Mills et al. (2006) later conducted a study to explore the relationship between self-efficacy, anxiety, and French proficiency in reading and listening. The participants were third- and fourth-semester college students studying French as a foreign language in the United States. The result of the study showed the students' French reading self-efficacy had positive relationship with reading proficiency. They also found no significant relationship between FLRA and reading performance.

In another study, Yamashita (2013) investigated the influence of ER on the four variables of attitude (comfort, anxiety, intellectual value and practical value). Sixty-one second-year undergraduate students who were non-English majors (agriculture, economic and information) in Japan participated in this 15-week study. The class met once a week for 90 minutes and 500 graded readers were available for students in the class. The results of this investigation indicated that ER had a positive impact on the students' feeling of comfort, decreased students' FLRA, and increased their intellectual value.

However, to the best of the researchers' knowledge, no study has been conducted on the effects of different levels of text difficulty (i.e., '$i + 1$' and '$i - 1$') on EFL learners' FLRA and reading comprehension. To achieve the objectives of the study, this study made an attempt to answer the following research questions:

Q1: Are there any significant differences between and within the '*i* + 1' and the '*i* - 1' groups' reading comprehension after four-month participation in extensive reading? If so, which group has higher reading comprehension in English?

Q2: Are there any significant differences between and within the '*i* + 1' and the '*i* - 1' groups' foreign language reading anxiety after four-month participation in extensive reading? If so, which group has lower anxiety towards reading in English?

Method

Design

This study used a quasi-experimental approach to collect data from 50 EFL learners to examine the potentially different effects of utilizing '*i* + 1' versus '*i* - 1' readers on reading anxiety and reading comprehension. To this end, the reading anxiety and reading comprehension of the participants were quantitatively measured prior to and after the intervention of ER through the FLRAS and the FCE (First Certificate in English).

Participants

Fifty EFL learners (20 males and 30 females) from a language institute in Ahvaz, Iran, participated in this study. The participants' ages ranged from 18 to 26. The textbook taught to the participants was *American Headway 1* (Soars & Soars, 2010). *American Headway 1* is suitable for the A2 level based on the Common European Framework of Reference (CEFR) classification. To ensure the participants' proficiency level, CEFR Headway placement test (2012) was administered to all participants, and their score ranged between 57 and 65, which is equal to A2 level. The participants were selected from two intact classes. Each class was assigned to a group (i.e., '*i* + 1' or '*i* - 1'). The '*i* + 1' group (n = 25) read graded readers stories which were beyond their level of proficiency, whereas the '*i* - 1' group (n = 25) read graded readers stories which were below their level of proficiency. The participants read graded readers along with their classroom materials. Each week, 30 minutes of class time was allocated to the participants' narration of the novels they had already read.

Instruments and materials

CEFR Headway Placement Test. CEFR Headway placement test is designed to provide a useful tool to estimate the participants' level at which they should begin or continue their English language studies. This test was chosen because the participants were studying American Headway. In addition, the *American Headway* book, CEFR Headway placement test (2012) and Oxford Bookworm Series (the graded readers in this study) were classified based on CEFR. It could be a big help to determine the probable 'i' of participants. CEFR Headway placement test (2012) consists of 100 multiple-choice items with three sections, including 50 vocabulary, 25 grammar and 25 reading comprehension items. The results were compared with the band score of CEFR Headway placement test (see Table 1).

Table 1. *Band score of CEFR Headway placement test*

Test result	CEFR level
0-40	A1- low
41-48	A1- high
49-56	A2- low
57-65	A2- high
66-74	B1- low
75-83	B1-low-medium
84-92	B1- medium-high
93-100	B1- high

Graded Readers. In this study, the Oxford Bookworms Series published by Oxford University Press were selected as the reading materials. The Oxford Bookworms Series classifies books into seven levels. Table 2 shows the word counts and CEFR levels in the Oxford Bookworms series.

Table 2. *Word counts and CEFR levels in the Oxford Bookworms Series*

Book levels	Word counts	CEFR levels
Starter	250	A1
Level 1	400	A1/A2
Level 2	700	A2/B1
Level 3	1,000	B1
Level 4	1,400	B1/B2
Level 5	1,800	B2
Level 6	2,500	B2/C1

To make sure what level is suitable, nine EFL learners at the elementary level and four EFL teachers were asked to read the Oxford Bookworms Series at different levels. After studying the books, all teachers agreed that for the elementary level learners, Starter and Level 1 were really easy, and Levels 3, 4, 5 and 6 were both grammatically and lexically difficult. According to the teachers, Level 2 was considered suitable for the elementary level. The learners also reported that Level 2 was comprehensible for them. Level 2 equals to levels A2 and B1 in CEFR. Therefore, Level 2 was determined as the appropriate level for the participants. Accordingly, the 'i - 1' group was suggested to read Levels Starter and 1 and the 'i + 1' group was suggested to read Levels 3 and 4. The participants were required to read two books at each level throughout the study.

Reading comprehension test. To measure the participants' reading comprehension ability, the reading comprehension section of the Cambridge First Certificate in English (FCE, 2008) was used. This section consists of three reading passages which include both macro and micro questions, such as the expression of opinion, attitude, purpose, main idea, detail, tone and gist. The reading section of the FCE includes 30 items that should be answered in 30 minutes. This study used two equivalent versions of the FCE, one as a pretest and the other as a posttest. A Parson correlation coefficient between the two equivalent forms of the FCE was calculated as 0.89 which showed a high reliability between the two versions of the test.

Foreign Language Reading Anxiety Scale (FLRAS). The FLRAS was designed by Saito et al. (1999) to measure the anxiety that learners experience in reading in a foreign language learning context. It is a 20-item questionnaire based on a 5-point summated Likert-type scale, ranging from *strongly agree* to *strongly disagree*. The highest degree of anxiety received a five and the lowest degree of anxiety received a one. Therefore, the possible range of scores is 20 to 100. In this study, the FLRAS questionnaire was adapted from Shariati and Bordbar (2009) who modified the questionnaire based on the Iranian context (see Appendix A). The only difference between the adapted FLRAS and the original one was the wording. The FLRAS was also translated into the participants' first language (Persian) by two independent translators to increase the quality and accuracy of the questionnaire. The translation was also validated through a back translation method by two other expert translators (see Appendix B). According to Saito et al. (1999), the FLRAS has a good internal consistency of 0.86. Zhao (2008) examined internal consistency of the FLRAS with a Cronbach's alpha coefficient of 0.83, and the revised FLRAS has been shown to be reliable and valid with alpha coefficient of 0.88. In this study, the Cronbach's alpha for the FLRAS was 0.85.

Procedures

Fifty elementary level EFL learners participated in this study. In the first week, the CEFR Headway placement test was administered to determine the participants' proficiency levels. This test also helped the researchers identify the probable participants' '*i.*' In the second week, the FLRAS questionnaire and the reading comprehension test were conducted in 90 minutes. Regarding the results of the CEFR Headway placement test (2012), the '*i* + 1' group were assigned to read graded readers at Levels 3 and 4, and the '*i* - 1' group were assigned to read Starter and Level 1 graded stories. There was a small library and bookstore in the language institute to provide the participants with the graded readers. It was also suggested that if they would not find the book of their interest, they could find them from other libraries and bookstores outside.

The number of pages the participants needed to read was determined at the beginning of each week. At the end of each week, 20 minutes of the class was allocated for their reports. The participants were given time to talk about different parts and the characters of the novels, their opinions about the end of the novels, and even provided some comments regarding the novels. In the first semester, the '*i* + 1' group read two graded readers at Level 3 which were one level beyond their '*i*', and in the second semester, they read two graded readers at Level 4. On the other hand, in the first semester, the '*i* - 1' group read two graded readers at the Starter level which was two levels below their '*i*' and in the second semester, they read two graded readers at Level 1 which was one level below their '*i.*' Finally, after a four-month engagement in this study, the results of these two different ways were compared with each other. In the last week of the second semester, the participants received an immediate posttest. They answered the FLRAS questionnaire and an equivalent version of the reading comprehension test in one session. The procedure was like the pretest.

Data analysis

At the beginning of the study, two independent samples *t*-tests were done to figure out if there was any significant difference between the '*i* + 1' and the '*i* - 1' groups in terms of reading comprehension and FLRA. At the end, two 2 x 2 mixed analysis of variance (ANOVAs) were carried out to explore significant interaction effects between time and group from the reading comprehension test and the FLRAS. Moreover, independent samples *t*-tests were performed to test the simple main effects of group on the pretests and the posttests. Paired samples *t*-tests were also done to further follow up on the simple main effects of time on FLRA and reading comprehension for both groups. To show the practical significance, for all of the *t*-tests, effect sizes (Cohen's *d*s) were calculated.

Results

Before embarking on choosing the appropriate statistical test, it was deemed necessary to test the normality of the data through employing the Shapiro-Wilk test of normality (see Table 3).

Table 3. *Tests of normality on the reading comprehension test and FLRAS*

		Shapiro-Wilk		
Group	Test	Statistic	df	Sig.
i+1	Reading pretest	.930	25	.086
	Reading posttest	.955	25	.317
i-1	Reading pretest	.927	25	.074
	Reading posttest	.950	25	.276
i +1	FLRAS (before treatment)	.945	25	.196
	FLRAS (after treatment)	.926	25	.069
i – 1	FLRAS (before treatment)	.971	25	.665
	FLRAS (after treatment)	.954	25	.300

As seen in Table 3, all significant values in the Shapiro-Wilk tests were higher than the confidence level of 0.05. This indicates that data were normally distributed. Table 4 displays the means and standard deviations of the participants' scores on the reading comprehension tests and the FLRAS questionnaire before and after the study.

Table 4. *Means and standard deviations of the 'i - 1' and* '*i* + 1' *groups' responses to reading comprehension test and FLRAS*

	Pretest		Posttest	
Group	Reading Comprehension	FLRAS	Reading Comprehension	FLRAS
	Mean (*SD*)	Mean (*SD*)	Mean (*SD*)	Mean (*SD*)
i + 1 (*n* = 25)	7.16 (1.40)	54.88 (10.08)	12 (1.61)	58.48 (8.55)
i – 1 (*n* = 25)	7.52 (1.16)	56.76 (7.08)	11.44 (1.50)	50.40 (7.52)

To answer the first research question, one mixed 2 x 2 ANOVA with two main factors, time (i.e., reading comprehension pretest and posttest) and group (i.e., '*i* + 1' and '*i* - 1') was conducted to

examine whether there were significant interaction effects between difficulty levels. Moreover, independent samples *t*-tests were conducted to examine the simple main effect of group on the reading comprehension pretest and the posttest, respectively. Finally, paired samples *t*-tests were done to examine the simple main effect of time for each group. Table 5 shows the results of the mixed ANOVA on the reading comprehension tests.

Table 5. *Results of mixed-ANOVA on reading comprehension pretest and posttest with time and group factors*

Source		Type III SS	MS	*df*	*F*	Sig.	Partial η^2
Between Subject							
	Group	.250	.250	1	.076	.783	.002
	Error	157.160	3.274	48			
Within Subject							
	Time	479.610	479.610	1	596.4	.000	.926
	Time x Group	5.290	5.290	1	06	.014	.121
					6.578		
	Error (Time)	38.600	0.804	48			

The results show that the main effect of the text difficulty level was not significant [*F* (1, 48) = .076, *p* = .783, partial eta squared = .002], suggesting no difference in the reading comprehension scores of the '*i* + 1' and the '*i* - 1' groups. Moreover, there was a significant interaction between difficulty level and time [*F* (1, 48) = 6.578, *p* = .014, partial eta squared = .121], suggesting that over the course of two semesters, the changes in scores from the reading comprehension differed significantly between the '*i* + 1' and the '*i* - 1' groups. There was also significant main effect of time [*F* (1, 48) = 596.406, *p* = .000, partial eta squared = .926], suggesting a substantial difference in the reading comprehension scores across two periods. Subsequent to a mixed ANOVA, two independent samples *t*-tests were conducted as follow-up tests to examine the simple main effect of group on the pretest and the posttest, respectively (Table 6).

Table 6. *Independent samples t-tests on reading comprehension pretest and posttest scores*

	Mean difference	Std. error difference	*t*	*df*	*p*	Cohen's *d*
Pretest	-.360	.364	-.988	48	.328	.280
Posttest	.560	.440	1.273	48	.209	.359

As Table 6 displays, the results revealed that there was no significant difference between the two groups on the pretest (*t* = -.988, *p* = .328, *d* = .28), indicating that both the '*i* + 1' and the '*i* - 1' groups were at a similar baseline prior to the experiment. The results also indicate no significant difference between the two groups in their posttests (*t* = .560, *p* = .209, *d* = .359) after the intervention. In other words, although the '*i* + 1' group was found to have a greater increase in the overall reading comprehension scores, the *t*-tests results illustrate that there were no significant differences in the posttest scores between the '*i* + 1' and the '*i* - 1' groups. Moreover, paired-samples *t*-tests were performed as follow-up tests to investigate the simple main effect of time for each group (Table 7).

Table 7. *Paired samples t-tests of the* '*i* + 1' *group's and the* '*i* - 1' *group's prescores and postscores from the reading comprehension test*

	Mean differences	*SD* of mean differences	Std. error mean	*t*	*df*	*p*	Cohen's *d*
i + 1	4.840	1.375	.275	17.603	24	.000	3.52
i – 1	3.920	1.152	.230	17.017	24	.000	3.40

As displayed in Table 7, the results suggest that both groups' reading comprehension was significantly enhanced at the end of this study (t = 17.603, p = .00, d = 3.52 for the '*i* + 1' group's reading comprehension; t = 17.017, p = .00, d = 3.40 for the '*i* - 1' group's reading comprehension). That is, the reading comprehension of the '*i* - 1' and the '*i* + 1' groups significantly improved after the intervention of ER. Cohen (1988) stated that the effect size (Cohen's *d*) of 0.2 is small; 0.5 is moderate; and 0.8 is high. Cohen's effect size values of the '*i* + 1' and the '*i* - 1' groups' paired samples *t*-tests are d = 3.52 and d = 3.40 for reading comprehension, respectively, suggesting high practical significance. To answer the second research question, first, a mixed ANOVA was performed to assess the effect of two discriminatory text difficulty levels ('*i* + 1' vs. '*i* - 1') on participants' scores from the FLRAS before and after the study (Table 8).

Table 8. *Results of mixed-ANOVA on FLRAS pretest and posttest with time and group factors*

Source		Type III SS	MS	*df*	*F*	Sig.	Partial η^2
Between Subject							
	Group	240.250	240.250	1	1.905	.174	.038
	Error	6054.560	126.137	48			
Within Subject							
	Time	47.610	47.610	1	3.279	.076	.064
	Time x Group	620.010	620.010	1	42.705	.000	.471
	Error (Time)	696.880	14.518	48			

As Table 8 depicts, there was significant interaction between difficulty level and time [F (1, 48) = 42.705, p = .00, partial eta squared = .471], suggesting that over the course of two semesters, the changes in scores from the FLRAS differed significantly between the '*i* + 1' and the '*i* - 1' groups. There was no significant main effect of time [F (1, 48) = 3.279, p = .076, partial eta squared = .064], suggesting no substantial difference in the FLRAS scores across the two periods. In addition, the main effect of the text difficulty level was not significant [F (1, 48) = 1.905, p = .174, partial eta squared = .038], suggesting no difference in the FLRAS scores of the two text difficulty levels. Following the mixed ANOVA, two independent samples *t*-tests were conducted to examine the simple main effect of group on the pretest and the posttest, respectively (Table 9).

Table 9. *Independent samples t-tests on FLRAS pretest and posttest*

	Mean difference	Std. error difference	*t*	*df*	*p*	Cohen's *d*
Pretest	-1.880	2.463	-.763	48	.449	.215
Posttest	8.080	2.277	3.549	48	.001	1.00

As Table 9 illustrates, the results showed that there was no significant difference between the two groups on the pretest (t = -.763, p = .449, d = .215), suggesting that both the '*i* + 1' and the '*i* - 1'groups were at a similar baseline of FLRA prior to the experiment. The results also indicate a significant difference between the two groups in their posttests (t = 3.549, p = .001, d = 1.00) after the treatment. In other words, the '*i* + 1' group was found to have greater increases in their FLRAS scores. Moreover, Cohen's effect size value of the groups' independent *t*-tests on the posttest is d = 1 indicating high practical significance. Paired-samples *t*-tests were also performed as follow-up tests to examine the simple main effect of time for each group (Table 10).

Table 10. *Paired samples t-tests of the* '*i* + 1' *group's and the* '*i* + 1'*group's prescores and postscores from FLRAS*

	Mean differences	*SD* of mean differences	Std. error mean	*t*	*df*	*p*	Cohen's *d*
i + 1	-3.60	5.852	1.170	-3.076	24	.005	.615
i - 1	6.360	4.881	.976	6.515	24	.000	1.303

As displayed in Table 10, the results suggest that the '*i* + 1'groups' FLRA was significantly enhanced at the end of this study (t = -3.60, p = .005, d = .615), whereas the '*i* - 1' groups' FLRA was significantly decreased after the intervention (t = 6.360, p = .00, d = 1.303). Cohen's effect size values of the '*i* + 1' and the '*i* - 1'groups' paired samples *t*-tests are d =.615 and d = 1.303 for FLRAS, respectively) suggesting moderate practical significance for the '*i* + 1' group and high practical significance for the '*i* - 1' group. In brief, the text difficulty significantly influenced the '*i* + 1' and the '*i* - 1' participants' FLRA. The results imply that the '*i* + 1' group had greater increases in their FLRAS scores.

Discussion

It was revealed that the participants' reading comprehension improved in both the '*i* + 1' and the '*i* - 1' groups. This finding is in line with previous research (Bell, 2001; Chiang, 2015; Tanaka, 2007; Wu, 2012; Yamashita, 2008). Consistent exposure to the input (i.e., graded readers) over four months seemed to have had an important effect on improving participants' reading comprehension. It could be possible that consistent exposure to written input facilitated the participants' incidental vocabulary learning (Mikeladze, 2014; Waring & Takaki, 2003).

However, based on the comparison made between two groups of varying text difficulty, both groups performed better in reading comprehension and gained better results at the end of the study. This finding is in contrast with Krashen's (1982) input hypothesis. According to Krashen (1982), it was expected to observe the development of reading comprehension only in the '*i* + 1' group. For that reason, the similar development in the '*i* - 1' group's reading comprehension seems skeptical. The results of statistical analysis refute such an idea and show that reading the '*i* - 1' materials improved participants' reading comprehension. This finding is consistent with Chiang's (2015) research in which the '*i* - 1' group's reading comprehension was similarly developed. The results can be due to using '*i* - 1' materials which provided a situation for participants to expand their reading comfort zone in which they had the opportunity to build up their reading confidence and develop a large sight vocabulary rather than learning new linguistic elements (Day & Bamford, 1998).

The results of this study also revealed that there was significant effect of time suggesting substantial difference in the reading comprehension scores across two periods. However, regarding the other previous studies, time might be less crucial in affecting participants' reading comprehension. Whether the time of intervention was two months (Mason & Krashen, 1997), five months (Tanaka, 2007) or even one year (Chiang, 2015), reading comprehension increased. It might be possible to identify more obvious differences in reading comprehension between the two groups if the duration of participation in ER could be extended.

It was also revealed that the text difficulty significantly influenced the FLRA of two groups. The FLRA of the '*i* - 1' group decreased significantly after participating in ER for four months. On the other hand, the results indicated that there was a high level of FLRA in the '*i* + 1'group. According to the paired samples *t*-test, the '*i* + 1' group's FLRA was significantly enhanced at the end of the study. This is in line with previous studies (Huang, 2001; Saito et al., 1999; Sellers, 2000) which have argued that the higher the difficulty level in a text, the more anxiety the participants are expected to experience while reading. In this study, the '*i* + 1' group read graded readers with a higher difficulty level than the '*i* - 1' group. Therefore, they encountered more unfamiliar words and structures which increased their level of FLRA.

However, the '*i* + 1' group with higher FLRA still showed an increase in reading comprehension scores. This finding may appear to reject the previous studies' (Huang, 2001; Zhao, 2008) results which found FLRA negatively impacts reading comprehension and reading cognitive processes (Huang, 2001; Zhao, 2008). It could be due to the fact that the participants had some background knowledge of English which helped them obtain higher scores in the reading posttest despite the high level of FLRA they had. Moreover, as Mills et al. (2006) put it, the low-stakes test-taking conditions might have led the '*i* + 1' group to gain higher scores on the reading comprehension posttest despite having higher levels of reading anxiety.

Conclusion

The results of the current study indicate that both the '*i* + 1' and the '*i* - 1' groups' reading comprehension improved regardless of the text difficulty after a four-month intervention. The findings also indicate that the text difficulty significantly influenced the participants' FLRA level in two '*i* + 1' and '*i* - 1' groups. The results indicate that the FLRA of the '*i* + 1' group increased significantly, while the '*i* - 1' group experienced low level of FLRA after four months. The open-ended survey showed the effectiveness of ER in promoting the participants' writing, speaking, and grammar. It also enhanced the participants' knowledge regarding expressions and sentences English people use in their daily life and improved the positive attitudes in the learners towards reading extensively. Despite some problems they encountered, approximately all of the learners from the '*i* + 1' and the '*i* - 1' groups indicated their desire to continue reading extensively in future.

Implications of the study

This study provides some implications for teachers who are interested in using ER in their classes. Teachers can take benefit of the '*i* + 1' or the '*i* - 1' in ER as a supplementary activity in English courses. This study suggests that ER is effective in improving EFL learners' reading comprehension, and helpful in enhancing vocabulary, grammar and reading speed regardless of the level of materials learners choose. This study indicates whether the learners choose easier or harder ER materials, they gain more or less similar results in reading comprehension. According to this study, choosing novels based on the participants' own interests can encourage them to eagerly participate in ER program. Ideally, teachers should consider the value of self-selected materials as a key to a successful implementation of ER.

Limitations of the study and suggestions for future research

There are, however, some limitations in the study. First, there were 50 participants in the present study. In order to gain more evidence about the influence of text difficulty on participants' FLRA and reading comprehension, more participants are recommended. Second, lack of random sampling was one of the limitations of the study. Random sampling will provide more concrete evidence for the effects of text difficulty on FLRA and reading comprehension. It is recommended to invite larger samples of learners in order to provide an opportunity for selecting them randomly. Third, future research can be replicated in ESL contexts. Fourth, in the current study, participants read four novels. Future research needs to provide a big stock of books and also ask participants to read more to maximize the effects of ER. Fifth, future research can focus on the effects of the '*i* + 1' and the '*i* - 1' hypotheses on other areas of language learning like grammar. Finally, time commitment is important for ER to be reasonably successful; this study lasted for four months which may not be sufficient for full benefits of ER. Future studies can gain better results if learners participate in ER program for a longer time.

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Appendix A

Foreign Language Reading Anxiety Scale (Shariati & Bordbar, 2009)

The following statements concern the situation of foreign language reading anxiety. There are no right or wrong answers. Please rate how much these statements reflect how you feel or think personally. Please select the choice corresponding to the degree of your agreement or disagreement.

1= strongly agree, 2= agree, 3= neither agree nor disagree, 4= disagree, 5= strongly disagree

Statements	1	2	3	4	5
1. I get upset when I'm not sure whether I understand what I am reading in English.					
2. When reading English, I often understand the words but still can't quite understand what the author is saying.					
3. When I'm reading in English, I get so confused I can't remember what I'm reading.					
4. I feel intimidated whenever I see a whole page of English in front of me.					
5. I am nervous when I am reading a passage in English when I'm not familiar with the topic.					
6. I am upset whenever I encounter unknown grammar when reading English.					
7. When reading English, I become anxious and confused when I don't understand every word.					
8. It bothers me to encounter words I can't pronounce while reading English.					
9. I usually end up translating word by word when I'm reading English.					
10. By the time you get past the funny letters and symbols in English, it's hard to remember what you're reading about.					
11. I am worried about all new symbols I have to learn in order to read English.					
12. I enjoy reading English.					

13. I feel confident when I'm reading in English.					
14. Once you get used to it, reading English is not so difficult.					
15. The hardest part of learning English is learning to read.					
16. I would be happy just to learn to speak English rather than having to learn to read as well					
17. I don't mind reading to myself, but I feel very uncomfortable when I have to read English aloud.					
18. I am satisfied with level of reading ability in English that I have achieved so far.					
19. English culture and ideas seems very foreign to me.					
20. You have to know so much about English history and culture in order to read English.					

Appendix B

Persian Edition of Foreign Language Reading Anxiety Scale

پرسشنامه‌ی ذیل جهت سنجش اضطراب خواندن در زبان خارجی تهیه شده است. در این پرسشنامه جواب درست یا اشتباه وجود ندارد. از اینرو، خواهشمندم جملات ذیل را بادقت بخوانید و گزینه‌ای که با ویژگی‌های شما بیشتر مطابقت می‌کند را انتخاب نمایید.

1= کاملاً موافقم 2= موافقم 3= تا حدودی 4= مخالفم 5= کاملاً مخالفم

	عبارات	کاملاً موافقم	موافقم	تا حدودی	مخالفم	کاملاً مخالفم
1	اگر مطمئن نباشم انچه را که می‌خوانم درک کرده ام، ناراحت خواهم شد.					
2	اغلب اوقات ،هنگام خواندن متن انگلیسی کلمات را درک می‌کنم اما هنوز نمی‌توانم آنچه را نویسنده بیان می‌کند کاملا بفهمم.					
3	هنگام خواندن انگلیسی، از به یاد نیاوردن آنچه که می‌خوانم نگران می‌شوم.					
4	زمانی که یک صفحه کامل انگلیسی را روبه روی خود می‌بینم، احساس ترس می‌کنم.					
5	هنگامی که یک متن انگلیسی را می‌خوانم، اگر با موضوع آشنا نباشم عصبی می‌شوم.					
6	هنگام خواندن متن انگلیسی، در صورت برخورد با گرامر ناآشنا مضطرب می‌شوم.					
7	هنگام خواندن متن انگلیسی، درصورت نفهمیدن معنی هرکلمه عصبی وگیج می‌شوم.					
8	در هنگام خواندن، برخورد با کلماتی که نمی‌توانم آنها را تلفظ کنم موجب ناراحتیم نمی‌شود.					
9	معمولا هنگام روخوانی کلمه به کلمه ترجمه می‌کنم.					
10	بعد از خواندن علامت‌ها و حروف عجیب وغریب انگلیسی، یادآوری آنها برای من دشوار است.					
11	من نگران تمامی علامت‌های جدیدی هستم که باید آنها را برای خواندن انگلیسی یاد بگیرم.					
12	از خواندن متن انگلیسی لذت می‌برم.					
13	هنگام خواندن متن انگلیسی از خود ممطمئن هستم.					
14	خواندن انگلیسی دشوار نیست وقتی‌که به آن عادت کنید .					
15	یاد گرفتن نحوه خواندن متن انگلیسی، سخت‌ترین قسمت کار است.					
16	از اینکه فقط بتوانم به انگلیسی صحبت کنم خوشحال تر خواهم بود تا اینکه مجبور شوم خواندن آن‌را هم یاد بگیرم.					
17	از اینکه برای خود بخوانم مشکلی ندارم، اما وقتی‌که با صدای بلند می‌خوانم احساس آرامش نمی‌کنم.					
18	از توانایی خواندنی که تا کنون در انگلیسی کسب کرده‌ام راضی هستم.					
19	عقاید و فرهنگ انگلیسی برای من خیلی ناآشنا هستند.					
20	برای خواندن متن انگلیسی باید در مورد فرهنگ و تاریخ انگلیسی آگاهی بیشتری داشته					

					باشم.	

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