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Extensive reading in a challenging environment: a comparison of extensive and intensive reading approaches in Saudi Arabia

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Many studies have shown that reading can have a beneficial effect on second language learning, but relatively few of these have focused on extensive reading in classroom environments over a period of time. This study compares an extensive reading class against a more traditional class involving intensive reading and vocabulary exercises. The classes were part of a Saudi college presessional course, and this classroom setting posed several problems for the extensive reading approach, including relatively weak students, an environment where pleasure reading is atypical, and the course being of short duration. The result is that the reported extensive reading class was carried out in what could be considered challenging conditions. Nevertheless, gain scores in reading comprehension ability, reading speed, and vocabulary acquisition showed that the extensive reading approach was just as effective as the intensive approach, even though some of the measurement instruments for these variables should have favored the intensive approach. Moreover, the extensive reading participants reported much more positive attitudes toward reading, their class, and their learning than the participants in the intensive reading group. Overall, these results indicate that, for the variables studied, the extensive reading approach was as good as, or better than, the more focused intensive reading approach.

Keywords: extensive reading, intensive reading, vocabulary acquisition, reading speed, reading comprehension, learner attitudes

I Introduction

Reading is often promoted as a good way to improve learners' second language proficiency, especially in input-poor environments. But if some reading is useful, then perhaps extensive reading is even better (for two recent overviews, see Day and Bamford, 1998; Horst, 2005). Extensive reading entails learners reading as much as possible, for the purpose of pleasure or information rather than learning particular language features, and is usually self-selected (for a more complete listing of the characteristics of extensive

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reading, see Day and Bamford, 1998: 7–8). Research has shown, with varying degrees of confidence, that extensive reading facilitates reading comprehension ability, reading speed, vocabulary acquisition, and positive attitudes towards reading. We first briefly review each of these factors in turn, giving particular attention to studies that were not been previously discussed in Horst's overview. We then report on a study exploring whether extensive reading can deliver these benefits in a very challenging classroom environment.

II Background

1 Extensive reading and facilitation of reading comprehension

A number of studies have demonstrated reading comprehension gains from extensive reading (Hafiz and Tudor, 1989; Robb and Susser, 1989; Sims, 1996; Mason and Krashen, 1997; Bell, 2001; Hitosugi and Day, 2004). Sims (1996) carried out a study on two groups of Taiwanese university freshmen, where one group was exposed to extensive reading while the other group was exposed to skill-based reading. The extensive group scored better on written recall protocols and on reading comprehension tests. Likewise, Hitosugi and Day (2004) found improvements in their participants' reading ability over the period of 10 weeks. They studied one extensive reading class and another regular reading class, which did not have the extra extensive treatment. The reading comprehension of both groups was pre- and posttested. The study found that the extensive reading group outperformed the traditional group on a reading ability test. Mason and Krashen (1997) found a similar effect for general language learning, with their extensive reading groups in Japan making greater gains on a 100-item cloze test than traditionally-taught groups.

Other studies have found positive results for extensive reading, although various methodological problems lower the rigor of these studies. For example, Robb and Susser (1989) found some advantage for an extensive reading methodology over a skill-building one, in terms of understanding important facts and guessing vocabulary from context, but not for getting the main idea or making inferences. However, the two methodologies were not clearly differentiated from each other and were similar in many ways. Bell (2001) found that an extensive reading group outperformed an intensive reading group after a two-semester period, but he questions the reliability of all of his tests.

2 Extensive reading and the facilitation of reading speed

In contrast to the numerous studies linking extensive reading and reading comprehension, we found only a few that measured reading speed (Robb and Susser, 1989; Lai 1993a; 1993b; Mason and Krashen, 1997; Bell, 2001). Unfortunately, the evidence that some of these studies provide is less than convincing. Robb and Susser (1989) reported that their extensive group read

significantly faster than the control group, although the way they measured it was not discussed, and the test was not attached to their article. Mason and Krashen (1997) also found significant gains in their extensive groups' reported reading speed over the comparison group. However, these gains were self-reported by the participants, and there was no formal test of reading speed. In contrast, Bell (2001) provides better evidence. He measured his EFL Yemeni participants' reading speed by using two different texts. He asked his participants to read each text for 3 minutes, and then mark the final word they reached. He used these texts before and after the treatment. Bell found a significant improvement in the extensive group's reading speed.

3 Extensive reading and the facilitation of vocabulary development

Horst (2005) listed 10 studies that were conducted in extensive reading environments; however, only two of them measured vocabulary growth (Robb and Susser, 1989; Cho and Krashen, 1994). Robb and Susser report a significant improvement in their extensive reading group's ability to guess the meaning of new words from context, although they did not provide a description of their tests, or a discussion of any other vocabulary improvement. Cho and Krashen (1994) tracked the acquisition of unknown words that occurred in the reading of four participants of widely varying proficiency. Three of the participants were asked underline unknown words in the 'Sweet Valley' novels they read (although they varied in how much they did this) and were interviewed post-treatment about these words' meanings. The other participant was measured differently, being given pre- and posttests. Despite the different proficiency levels and measurement techniques, Cho and Krashen found that all of their participants had increased their vocabulary, gained more confidence, and reported improvements in aural skills.

Al-Nujaidi (2004) reported two studies he carried out on 104 Saudi college students. In the first, the extensive reading group read Oxford Fact Files graded readers at home for 10 days during a 3-month period, while the control group was not given any extra exposure to English texts. The participants' vocabulary size was measured before and after the experiment with the Vocabulary Levels Test (VLT) (Schmitt, 2000; Schmitt *et al.*, 2001). Al-Nujaidi found that the treatment group gained 233 words in the 2000 word section, 283 words in the 3000 word section, and 40 words in the Academic word section, while the control group gained 15 words, 48 words, and 6 words, respectively. Therefore, Al-Nujaidi concluded that the extra reading had led to significantly better vocabulary growth for the extensive reading group, which is unsurprising given the extra exposure. In the second similar study, he found significant improvement at the 3000 and academic word levels. It is also worth noting that reading Oxford Fact Files increased the participants' knowledge of academic words, even though Horst (2005) reported that she found few academic words in the Fact Files she scanned.

Alshwairkh (2004) found that 18 ESL MBA students who were required to read extensively on the internet, keep regular vocabulary logs, write journal entries, and participate in interviews over the period of 8 weeks, increased their depth of vocabulary knowledge as well as their vocabulary size. This is congruent with the results of Pigada and Schmitt (2006), who found that their case-study participant G improved his knowledge of the spelling, meaning, and grammatical behavior of 133 French target words after a month of reading. Overall, it seems that extensive reading does facilitate vocabulary acquisition, although it is not clear whether the facilitation stems from the increased exposure, or from the fact that the extra exposure is in the form of extensive reading.

4 Extensive reading and attitudes toward second language reading

The positive attitudes that second language (L2) learners hold towards extensive reading has been one of the most commonly discussed issues in extensive reading studies. For example, Liem (2005) studied six Vietnamese computer science students who were required to reflect on and report their reading experience during a 7-week extensive reading treatment. Liem found positive results in terms of attitudes towards reading in the L2, the use of different strategies, and reading autonomy. However, extensive reading does not always result in an improvement in attitudes; Robb and Susser's (1989) extensive reading group did not report any significantly better attitudes toward their approach than the skill-based group. Moreover, learner attitudes may be linked to the type of student. Walker (1997) investigated 51 EAP and general English students in the UK, and found that the general English students had more positive attitudes towards an extensive reading program than the EAP students. Walker concludes that the EAP students perceived extensive reading to be less beneficial because the type of reading involved (graded readers) did not have the expected focus on structure and vocabulary expansion.

5 Extensive reading in classroom teaching environments

Numerous studies have reported reading-based improvement of the various aspects of language competence discussed above, but some of them have been 'peripheral' studies where the extensive reading was not fully embedded into learners' classroom and learning environment. If an argument is to be made for the effectiveness of extensive reading, it must be well researched in the type of environments in which it will actually be employed. Therefore, the main focus of the current study is to determine whether benefits accrue from an extensive reading approach as it is deployed in a classroom teaching situation, with all its attendant problems. The teaching situation in this study will be difficult, covering only a relatively short period of time, in an EFL environment with students not used to reading. In fact, the extensive reading program described might be considered the minimal program one

could reasonably put on. If extensive reading can show positive results in this challenging environment, then this would provide solid evidence of the effectiveness of the approach.

The specific areas of investigation the study addresses are as follows:

1) Are there any differences between an extensive reading approach and a traditional intensive reading approach in terms of learners' improvement in reading comprehension ability, reading speed, and vocabulary gain?
2) Are there any differences between the attitudes of learners participating in an extensive reading program vs. a traditional intensive reading program?

In addition, the study will address the issue of whether the level of graded reader makes a difference:

3) What degree of difficulty of graded reader (reading above one's level vs. reading at or below one's level) works best in terms of learners' improvement in reading comprehension ability, reading speed, and vocabulary gain?

III Methodology

1 Participants

The participants were 70 male EFL students in the presessional Intensive Course at the College of Languages and Translation at Al-Imam Mohammad Ibn-Saud Islamic University, Riyadh, Saudi Arabia. These participants had studied English for 6 years as a foreign language in secondary and high schools (i.e. between the ages of 13 and 18); usually for four 45-minute classes a week. Overall, the students' language proficiency was rather weak, although it did vary a great deal. For example, there were some students who could not understand very basic words or utterances, e.g. *understand*, *sir*, *door*, '*Could you open the window, please?*', while others were able to comfortably read graded readers from the third level (see below).

The participants assigned to the extensive reading treatment had additional limitations. They were novice learners introduced to extensive reading. Coady (1997) believes that it is difficult for beginners to learn vocabulary via extensive reading since they do not have enough vocabulary to read effectively. Moreover, Al-Nujaidi (2003) found that his Saudi university participants reported very low levels of pleasure reading in English, the average amount being 15 minutes per week. So introducing an extensive reading approach meant changing the reading habits of the participants in the extensive reading group. Furthermore, it took time for the extensive reading group to know and cope with the new reading approach: where they needed to borrow/return books, choosing their own books instead of being prescribed certain books, and reading for the general idea without having any comprehension questions. All of these posed challenges for the extensive reading approach.

2 Materials

The participants were divided into two groups, one receiving an intensive reading approach, and the other an extensive reading approach (for details, see the Procedure section). The intensive group was taught by a colleague of the first author and were required to read 200–400 word texts from *Reading power* (Mikulecky and Jeffries, 2005, 3rd edition), followed by comprehension questions. They also worked on various reading skills (e.g. scanning, skimming, and making inferences). (For a review of *Reading power*, see Ishida, 2002.) Overall, about 100 pages of the book were completed during the presessional course. To reach an accurate estimate of how many words this entails is difficult, since the book includes short and long reading passages, comprehension questions, and reading strategies that differ from one page to another. But an average page contains around 250–300 words. If the students read 100 pages, this translates into about 25000–30000 words during the 10-week course. In addition, the teacher in the intensive group said that he explicitly taught around 20–30 new words per session, which would translate into roughly 80–120 words a week, and 800–1200 words for the 10-week treatment.

For the extensive group (taught by the first author), we used 150 graded readers chosen from Oxford University Press, Longman, and Cambridge University Press. The titles of graded readers were chosen from diverse genres – such as fact file topics, thrillers, adventures, detective stories, human interest, and humor – in order to cater to the assorted nature of the participants' interests. Moreover, the graded readers ranged in terms of level in order to cover the considerable discrepancy in the language proficiency of the participants.

Due to the fact that the graded readers were from different publishers, the books levels were not identical. That is, Oxford University Press, for example, has the first level of their graded readers written around 400 words, while Longman has designed their first levels around 200 words. This difference occurred in all other levels. Therefore, we devised a classification system that addressed these differences. Books that belong to different levels of different publishers were put together into one level if the difference between them was around 200 words. For example, books that fall into the 600-word level in the Longman series and books that belong to the 700-word level in the Oxford series were put together to represent one level (e.g. Level 2; see Table 1). Since the difference was not that large, this enabled us to have fewer levels and more books in each level.

Furthermore, in order to make it easier for participants to recognize the level of the graded readers when borrowing or returning, different colored labels were attached to the books. For instance, green labels were attached to graded readers in Level 3. There were 6 different colors representing 6 different levels of graded readers, as can be seen in Table 1.

In order to make this small library accessible to all students, we designed a small bookcase on wheels, and divided it into six shelves, each containing the

Table 1 List of graded readers used in the study

Level	Headwords	Color	Number of books available
1	300–400	red	33
2	600–700	yellow	33
3	1000–1200	green	30
4	1700–1800	orange	15
5	2300–2500	blue	27
6	3000	white	12
Total			150

books of one particular level. This allowed the students to read the titles of the graded readers from the spines of the books, each according to level. This made it much easier for the students to pick up the title that attracted them most. During each reading class, the 'mobile library' was brought into the classroom, where students could choose their readers. This convenient access seemed to reduce the amount of time spent in borrowing and returning the books, which maximized the time available for reading inside the classroom.

The amount of reading done by the extensive group varied widely. For example, a student reading at Level 1 might read around 20–30 pages a week, while another student reading at Level 3 might read around 50–60 pages. However, this and a number of other factors make it difficult to arrive at an estimate of the average number of words read by the group as a whole. First, the participants' proficiency levels were diverse, as we reported earlier. Second, learners speeded up their reading through the course. For example, it took some students at Level 1 about 8–10 days to finish a 25-page book in the early stages of the treatment. Later on, it was easy for most of these participants to finish the same number of pages in 5–7 days. Third, the different levels of graded readers varied in their length and in the number of words (and pictures) on each page. Still, based on our reader logs, we can get some idea of the range of reading that occurred in the extensive group. We can estimate that the weaker readers read somewhere in the area of 31 500 words during the presessional course, while the better readers may have read closer to 162 000 words (number of books reported read × average number of words in the relevant level of graded reader). Overall, it can be safely said that each participant managed to read at least one graded reader each week after the first 3 weeks of the treatment.

3 Measurement instruments

a Vocabulary size: The Vocabulary Levels Test (VLT) (Schmitt *et al.*, 2001) has been used in numerous studies to obtain a measure of the vocabulary size of second language learners, and is now as close to a standard test

as we have for this purpose. Because our participants had limited language proficiency, we elected to use only the 2000, 3000, and Academic Word List sections of the VLT. In the Schmitt *et al*. validation study, these tests had reliability figures of .920 (2000, Version 1), .922 (2000, Version 2), .929 (3000, 1), .927 (3000, 2), .958 (Academic Word List, 1), and .960 (Academic Word List, 2).[1] We administered both versions of the VLT (total 60 items), and averaged the two scores. For example, if a participant scored 25 on the 2000 level on Version 1 and 23 on Version 2, their score was calculated as 24 for this frequency level.

b Reading comprehension: Two tests were used to measure the participants' reading comprehension:

- the Cambridge Preliminary English Test comprising 3 reading passages with 5 multiple-choice items each; and
- the reading section of a Pre-TOEFL which consisted of 5 reading passages with a total of 20 reading comprehension questions.

The length of these passages ranged from 6 to 20 lines. The rationale for the choice of Pre-TOEFL was that the original test did not match the proficiency level of the participants.

c Reading speed: Since there are no standardized tests that measure reading speed, a test was designed based on an idea from Bamford and Day (2004). The test consisted of 3 reading passages taken from one book of graded readers (i.e. *Huckleberry Finn*, Stage 2). The level of this book was within the abilities of the majority of the participants based on our judgment. Participants were given a 2-page passage to read during 3 minutes, and then mark the last word they reached. They were asked to move at a normal pace, reading for general comprehension. They were then given the second and third passages following the same procedure. The reading speed (in words per minute) was averaged between the three passages. Reliability for the combined reading speed pretest was .851 and the posttest .920.

4 Questionnaire

In order to probe our learners' perspective on the different reading approaches, we developed a 50-item questionnaire based on our reading of the literature. To see if the questionnaire was valid for our target participants, we administered it to 120 students who passed the previous presessional intensive course 3 months earlier.

The questionnaire explored how the participants felt about the two reading courses, and how they perceived the effects of their course on their language skills. The items on the questionnaire were divided into 10 different, but

related, categories as listed below (reliability figures from the current study in parentheses):

1) attitudes towards the reading course (.602);
2) reading skills (.809);
3) reading comprehension (.789);
4) reading fluency (.853);
5) vocabulary knowledge (.881);
6) other improved language skills (.751);
7) self-confidence (.625);
8) amount of reading (.817);
9) books (.829);
10) classroom exercises (.678).

Each item was fixed to a 6-point Likert scale, ranging from 'strongly disagree (1) to 'strongly agree' (6), as in the following example. The 6-option format left no option for neutral responses, in order to escape the 'fence-sitting' phenomenon (Dörnyei, 2003).

	strongly disagree					strongly agree
I like reading in English.	1	2	3	4	5	6

The questionnaire as a whole proved to have good overall reliability (.933). The reliability of the 10 categories also proved to be adequate, meeting Dörnyei's (2003: 112) criterion of a minimum of .6 for questionnaires researching L2 issues.

5 Procedure

The research design was T1–treatment–T2,[2] which compared two groups receiving different reading approach treatments. The 70 Saudi participants were assigned to one of the two groups alphabetically, according to their last name, which presumably lead to a random division between the participant population. The participants in both groups received the same language instruction in their university, except for the reading class, where the methodology differed.

The 23 participants in the control group (intensive group) were given the usual reading instruction at the university, which consisted of four 50-minute classes a week. In each session, the teacher in this group explicitly taught new words, quizzed students on previous met words, and drilled reading strategies and dictionary use strategies. As homework, the students were asked to read new passages, answer related comprehension questions, and find topic sentences for different paragraphs.

The 47 participants in the treatment group (extensive group) had the same amount of class time, but were encouraged to read, without examinations.

The 50-minute classes were usually divided in the following way, although this varied somewhat: Usually, some warm-up activities focusing on intensive reading skills were given for about 10–15 minutes (e.g. scanning, skimming, previewing, studying grammatical structures). The rational behind introducing the extensive group to some intensive reading exercises is twofold. First, Nation (2001) and Waring (2009) argue that any extensive reading program should be balanced and intertwined with intensive reading exercises. Second, all participants were required to sit for a final exam run by the College, which is usually based on the intensive reading approach. However, it is important to note that although both groups were given intensive reading exercises, the extensive group had far fewer and less frequent exercises than the intensive group.

The initial skills activities were followed by 20–25 minutes of students' individual silent reading of their choice of graded reader with the remaining time (10–15 minutes) dedicated to the teaching of vocabulary learning strategies (e.g. using dictionary and guessing from context), any questions or suggestions, or general discussion about some of the readers' reactions to what they had read.

The extensive group was further divided according to what level of readers they were encouraged to read. The participants' initial reading ability was determined by a composite of the reading comprehension, reading speed, and vocabulary size scores from the T1. The vocabulary group (21) were asked to read graded readers at one level above their reading level, which should have exposed these students to additional unknown vocabulary. The fluency group (26) read books at, or one level below, their reading level, which should have limited the new vocabulary available, but also should have made the graded readers relatively easy to read. The participants in the extensive group were assigned to one of the two groups alphabetically according to last name, although not all of the participants took part in all test administrations. Most students stayed within their assigned reading level, but some did move. For example, student-reading logs showed that some students finished all of the books at one level and moved up to the next level. Others began reading books at a higher level, while continuing to read books at their assigned level.

Before their reading course began, the participants in the both the extensive and intensive groups were given a test battery consisting of the Vocabulary Levels Test, the TOEFL and PET reading comprehension tests, and the reading speed test (T1). The participants then attended a 10-week course. Although the students received 10 weeks of instruction, there was a long 3-week break in the middle of the course. At the end of the course, the participants were given the identical test battery (T2), along with the questionnaire concerning their attitudes towards the reading approach they were taught with.

IV Results and discussion

This study mainly focuses on whether an extensive reading approach works as well as a more traditional intensive reading approach in a real teaching

environment. We compared the benefits of the two approaches in advancing learners' language knowledge and abilities, in terms of their ability to comprehend texts, their reading speed, and their vocabulary gains. Each of these is discussed in turn.

1 Overall reading comprehension

We used two different measures of reading comprehension, the TOEFL and PET tests. The data from these tests was examined to ensure that it was normally distributed (it was according to Kolmogorov–Smirnov normality tests), and T1→T2 gain scores calculated. The descriptive statistics are shown in Table 2. Independent-samples *t*-tests compared the gain scores between extensive and intensive reading groups and found that there were no significant differences in the reading comprehension gains between the groups for either the TOEFL or PET measures. When paired-samples *t*-tests were used to determine whether there were statistically reliable improvements in the comprehension scores between T1 and T2 administrations for the TOEFL and PET tests, the only significant result was for the extensive group on the TOEFL test ($p = .037$). So, while previous research which has found that extensive reading can help improve reading comprehension, this study showed little or no gains in comprehension, although this can probably be attributed to the short period of the study. However, when there was an advantage between the extensive and intensive approaches, it was in favor of the extensive group, with the only significant improvement in comprehension. Thus, the results show that the extensive reading approach was at least as effective in improving reading comprehension as the intensive approach. This is in spite of the fact that the TOEFL and PET tests were very similar in format to the type of instruction given and the materials used in the intensive reading program, which presumably should have advantaged the intensive group students.

Table 2 Reading comprehension scores (TOEFL and PET)

Test	*n*	T1[c]	sd	T2[c]	sd	Gain[d]
Extensive group:						
TOEFL[a]	47	6.21	2.82	7.45	2.95	1.24*
PET[b]	47	3.56	1.82	4.39	1.97	.83
Intensive group:						
TOEFL	23	5.57	2.50	7.00	2.00	1.43
PET	23	3.74	1.86	4.48	2.50	.74

Notes: [a] maximum score = 20; [b] maximum score = 15; [c] mean;
[d] extensive↔intensive gain comparisons for both TOEFL and PET (independent-samples *t*-test, $p > .05$); *paired-samples *t*-test (T1→T2): $p < .05$.

2 Reading speed

The three reading speed tests were combined to produce one average reading speed score. The data was handled in the same manner as described for the reading comprehension measures. The data was normal, and paired-samples *t*-tests showed that both the extensive and intensive groups improved significantly in their reading speed (Table 3). However, an independent *t*-test showed that the extensive group had a significantly larger improvement than the intensive group. Thus the results show that both groups improved their reading speed between T1 and T2, but that the extensive group had the advantage in increasing reading speed.

Previous research indicates the great impact extensive reading has on L2 learners' reading speed rate (Robb and Susser, 1989; Bell, 2001). Grabe and Stoller (2002: 79) believe that one of the most effective ways of promoting reading fluency and automaticity is extensive reading, both in and out the classroom. Our study supports these findings: reading fluency seems to be one of the essential benefits of extensive reading. When extensive reading is carried out with graded readers, learners engage with difficulty-controlled texts in terms of grammar and vocabulary. This simplification appears to lead to faster recognition of words and common patterns of sentence structure. Moreover, we believe that the diversity of titles and self-selection had its own effect on the learners' reading fluency. Reading enjoyable texts may well encourage the learner to read faster to see what happens next and how the story is going to end. However, it is important to note that the intensive reading approach also led to improved reading speed.

3 Vocabulary gains

Changes in vocabulary size were measured by three sections (2000, 3000, Academic) of the Vocabulary Levels Test. Because the more frequent words are typically learned earlier than less frequent words (Schmitt, 2000; Nation, 2001), and because the academic words on the test are not based solely on frequency criteria, we feel that each level carries discrete information. We will therefore report the three levels separately, rather than as a combined score.

a The 2000-word level: Table 4 shows that both the extensive and the intensive groups improved their scores on the 2000 level of the VLT. The data was

Table 3 Reading speed (words per minute)

Group	N	T1[a]	sd	T2[a]	sd	Gain[b]
Extensive	43	60.08	19.41	93.57	21.18	33.49*
Intensive	22	61.62	21.61	87.75	28.75	26.13*

Notes: [a] mean; [b] extensive↔intensive gain comparison (independent-samples *t*-test, $p < .05$); *paired-samples *t*-test (T1→T2): $p < .001$.

Table 4 Vocabulary size (2000 level)[a]

Group	N	T1[b]	sd	T2[b]	sd	Gain[c]
Extensive	45	19.11	6.10	24.96	9.56	5.85*
Intensive	20	14.45	5.03	21.35	7.01	6.90*

Notes: [a] maximum score = 30; [b] mean; [c] extensive↔intensive gain comparison (independent-samples *t*-test, $p > .05$); *paired-samples *t*-test (T1→T2): $p < .001$.

handled as above, and paired-samples *t*-tests showed that these gains were statistically reliable ($p < .001$). An independent samples *t*-test showed that the two groups did not differ in the magnitude of their improvement. In other words, the extensive group gained as much new vocabulary as the intensive group, even though the intensive group had to focus explicitly on vocabulary during their required analysis of texts, and their grammar and vocabulary tasks. Generally speaking, the intensive group could not proceed without understanding most of the words present in those texts. The extensive group, on the other hand, was reading texts that are suitable for their levels, and the participants were reading for general understanding. This means that the density of new words was very low to ensure reading fluency, despite of the presence of some new words. Overall, the reading was at their ease; and they were not required to show any proof that they had found and studied new words, although they were told that picking up and memorizing new words would help them understand better. Despite this, the extended and less regimented reading approach was equally effective in facilitating vocabulary gain at the 2000 frequency level.

We can extrapolate from the test scores to estimate the extensive group learned something on the order of 390 words on average during the course. If we assume that the students read only during the 10 weeks they were actually taking classes (70 days; informal interviews with the students confirmed that they did not read over the 3-week break), this means that they learned about 5.57 words on average for each day. The intensive group had somewhat higher numbers (though insignificantly so): 460 words over the course, and 6.57 words per day. These numbers look positive if we consider Nagy's (1997: 75) comment that the annual gain of new words from reading around one million words a year is about 1000 words. At the rate of learning indicated in this study, students following either the extensive or the intensive approaches would be able to meet the 1000 words per year goal, even with long periods of vacation factored in. However, this would only hold true if similar rates of learning occurred at lower frequency levels, as students would soon run out of high-frequency words to learn if the rate only held at the 2000 level.

b The 3000-word level: The two groups gained fewer words at this level than at the 2000-word level (Table 5), which was expected since most students

Table 5 Vocabulary size (3000 level)[a]

Group	N	T1[b]	sd	T2[b]	sd	Gain[c]
Extensive	45	12.38	4.61	16.58	7.37	4.20*
Intensive	20	8.30	3.56	12.55	3.76	4.25*

Notes: [a]maximum score = 30; [b]mean; [c]extensive↔intensive gain comparison (independent-samples *t*-test, $p > .05$); *paired-samples *t*-test (T1→T2): $p < .001$.

were mainly reading from graded readers at 1800-word level or below. The data was normal and both groups showed significant gains (paired-samples *t*-tests, $p < .001$). However, there was no significant difference in the amount of gain between the two groups (independent-samples *t*-test, $p > .05$).

We find a similar pattern of vocabulary acquisition as in the 2000 level. Both groups improved their vocabulary size at the 3000 level to a significant degree, but there was no difference in the amount of gain between the groups. We estimate that the extensive group learned 140 words over the course (2.00 per day) and the intensive group almost exactly the same amount: 142 (2.03). This is a useful amount when added to the learning at the 2000 level, and shows that learning continues beyond the 2000 level.

c Academic vocabulary: Academic vocabulary is somewhat different from the 2000 and 3000 level words, as it is vocabulary beyond the most frequent 2000 level, which occurs across a diverse range of academic texts. It is interesting in this study, as the intensive group – which read academic texts in their class and studied them intensely – should have found it easier to obtain better scores on the posttest of the Academic Word section than the extensive group, which read graded readers and did not focus on academic vocabulary. The data was normal and handled as above. Both groups achieved significant gains over the 10-week course (paired-samples *t*-tests, $p < .05$), with the extensive group managing to do as well as the intensive group (independent-samples *t*-test, $p > .05$) (Table 6).

At the academic level, we find a very similar pattern as at the 3000 level. Both extensive and intensive groups improved their academic vocabulary size to a significant degree, but there was no difference in the amount of gain between the groups. It is not surprising that significant learning occurred in the intensive group, as the tasks in the intensive class were always likely to improve academic vocabulary. The surprising result is that the extensive group also increased their academic vocabulary size, since academic words are not very frequent in graded readers, especially at lower levels. Horst (2005: 372) states that she found very few academic words in the 37 readers she scanned; therefore, she did not include any academic words in her targeted lists of words used for testing the vocabulary knowledge of her participants. Although we do not know how many Fact Files readers were included in Horst's scan, Al-Nujaidi's (2004) results showed that Fact Files can help learners increase their Academic words.

Table 6 Vocabulary size (Academic)[a]

Group	N	T1[b]	sd	T2 [b]	sd	Gain[c]
Extensive	45	12.18	4.56	13.89	5.43	1.71*
Intensive	20	8.55	3.59	10.85	4.51	2.30*

Notes: [a]maximum score = 30; [b]mean; [c]extensive↔intensive gain comparison (independent-samples *t*-test, $p > .05$); *paired-samples *t*-test (T1→T2): $p < .05$.

Overall, our findings show that the extensive group was under no disadvantage when compared to the intensive group when it came to learning the vocabulary on the Academic Word List although, in real terms, the vocabulary gains were small: extensive (32 words; .46 words per day), intensive (44 words; .62 words per day).

4 Effect of level of graded reader on learning

To the best of our knowledge, this study is the first of its type to discuss the issue of L2 learners' performance on reading different levels of graded readers. The available literature usually recommends that L2 learners should read graded readers at their comfort level (Day and Bamford, 1998), i.e. below their current level, and that any difficult text will hinder the reading process. To explore this issue, we divided the extensive group into a vocabulary group, in which the learners read graded readers at one stage above their level, and a fluency group, where the learners read at or one stage below their level.

Table 7 shows the test battery scores for these two groups. It shows that there was no significant difference in the gain scores between the vocabulary and fluency groups for any of the language variables studied. The results from previous sections suggest that an extensive reading approach using graded readers is effective in improving language proficiency, and this result indicates that the level of reader is not critical. Reading at a comfortable lower level of reader did not facilitate a greater improvement in reading speed than reading at a more difficult higher level. Likewise, reading at a higher level, where more unknown vocabulary is available to be learned, did not result in greater vocabulary learning than reading at lower levels where more of the vocabulary would already be known. A more detailed study is necessary, but these initial results suggest that the mere fact of reading graded readers, rather than reading at a precise level, is what makes the difference in learning.

5 Attitudes of the participants toward the two reading approaches

The results up until now have reported on the degree to which the two reading approaches facilitated language learning. However, teaching methodologies can also have a great effect on student attitudes towards

Table 7 Comparisons for vocabulary vs. fluency groups[a]

Test	Vocabulary group			Fluency group		
	Gain[b]	sd	sig.	Gain[b]	sd	sig.
TOEFL comprehension[c]	2.38	3.94	.012*	.31	6.04	.679
PET comprehension[d]	1.68	2.68	.008*	.12	3.01	.847
Reading speed[e]	32.50	11.20	.001*	34.35	14.91	.001*
2000 level[f]	4.86	6.50	.002*	6.78	6.85	.001*
3000 level[f]	2.73	5.50	.030*	5.61	7.45	.002*
Academic[f]	1.55	5.56	.209	1.87	4.93	.083

Notes: [a] all vocabulary/fluency gain score comparisons $p > .05$ (independent-samples *t*-test); [b] T1→T2 gain, paired-samples *t*-tests; *$p < .05$; [c] maximum score = 20; [d] maximum score = 15; [e] words per minute; [f] maximum score = 30.

learning. This section reports on the results from the questionnaire tapping into the participants' perceptions of their learning under the two reading approaches.

The results from Table 8 show that participants in the extensive group reported having more positive attitudes towards their learning experience, and gave a stronger indication of learning than the participants in the intensive reading group did. The only category where no difference was seen was the one that asked about language skills other than reading and vocabulary ('Other improved language skills'). For all other categories, the results were not only significantly higher for the extensive reading group, but very clearly so. The difference was at least .55 on a 6-point Likert scale for every category, often was close to a full point, and for the category exploring the suitability of the books, was an extremely strong 2.13. Thus the differences are not only significant, but are highly meaningful. It is worth noting that the intensive reading participants also reported (marginally) positive responses, but these paled in comparison to the responses to the extensive approach.

The extensive group participants held more positive views about their reading development in terms of all of the following: reading skills, reading comprehension, and reading fluency. They also rated their learning of vocabulary more highly than did the intensive group. They liked the classroom exercises better (from the intensive reading skills part of their lessons), and compared to the intensive group, had a much higher opinion of the books used in their approach. These positive views are important because the students in the extensive reading group are more likely to continue reading on their own, which means continued progress in English. Furthermore, as the students did not know the different classes were being compared, it is unlikely that the higher scores for the extensive group were due to any 'halo' effect. Although the students in each class may have given higher ratings to please their individual teacher, there is no reason to believe that the extensive approach students did this any more than the intensive group students.

Table 8 Learner perspectives on the extensive and intensive reading approaches

	Extensive reading group ($N = 41$)		Intensive reading group ($N = 15$)	
	M[a]	sd	M[a]	sd
Attitudes towards the reading	5.10	.64	4.02*	1.02
Reading skills	4.72	.62	4.12*	.96
Reading comprehension	4.84	.79	4.07*	1.18
Reading fluency	5.24	.62	4.50*	1.30
Vocabulary knowledge	4.79	.67	4.12*	1.06
Other improved language skills	4.44	1.02	4.53	.55
Self-confidence	5.37	.51	4.82*	.96
Amount of reading	4.98	.64	4.11*	1.10
Books	5.11	.75	2.98*	1.44
Classroom exercises[b]	2.68	.92	3.37*	1.01

Notes: [a] based on a 1–6 Likert scale; [b] negatively worded items; *independent samples *t*-test $p < .05$.

These positive attitudes toward the extensive reading approach support the results of previous studies. Day and Bamford (1998: 35) conclude that 'study after study shows how attitudes changed toward reading in the second language and how the students become eager readers' when exposed to the extensive reading approach. Nonetheless, most of the studies (apart from Walker, 1997 and Liem, 2005) did not have any formal measurement of attitudes. This study, using a questionnaire that was piloted and checked for reliability, gives additional robust evidence for the affective advantages of extensive reading.

V Conclusions

Saudi learners who self-selected and read graded readers for pleasure (although there was a mandatory reading requirement at play) improved at least as much on every measure as similar students who received intensive instruction in reading. In other words, the relatively stress-free and highly popular extensive reading approach was as good or better than the more formal and pressured traditional reading approach. If extensive reading can show positive results in the challenging environment reported in this study (short duration, weaker students, an input-poor environment, students not active readers), there is little doubt that it can be a viable language teaching approach. Overall, this study adds to the growing evidence showing the benefits of extensive reading.

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Notes

[1] Best research practice dictates that the reliability of the measurement instruments in a study be established for the participants in that study, but unfortunately the original participant scripts were lost after the initial data entry. This made it impossible to subsequently calculate the reliability figures for the Vocabulary Levels Test, the TOEFL, and the PET tests for our participants. Although all of these are standardized tests with previous evidence for reliability, the lack of participant-specific reliability information should be seen as a limitation of the study.

[2] T1 = test 1; T2 = test 2.

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