Impact of extensive reading programs on vocabulary development and reading comprehension

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ARTICLE INFO	ABSTRACT
Keywords: extensive reading, vocabulary size, reading comprehension.	*This study investigates the impacts of an Extensive Reading (ER) program on students' vocabulary size and reading comprehension, addressing a critical gap in supporting learners with low English proficiency. The research focuses on students enrolled in the Written English 1 course at Petra Christian University, many of whom have repeatedly failed the course due to limited vocabulary and difficulties in reading comprehension. Participants include first-year students required to read at least 20 graded readers over one semester, progressing from level-1 to level-2 materials as part of their coursework. Data collection involves pre-and post-tests to measure vocabulary size and reading comprehension, student reading logs to track progress, and semi-structured interviews to capture student experiences and perceptions of the ER program. The research employs a mixed-methods approach, combining quantitative analysis of test results and qualitative insights from interviews to understand the program's effectiveness comprehensively. Findings are expected to offer practical implications for enhancing reading and language proficiency in similar educational contexts.*

1. Introduction

Extensive Reading (ER) has been widely acknowledged as a powerful tool in language learning, offering significant benefits for vocabulary development, reading comprehension, and overall language proficiency. Krashen (1982, 1985) emphasized the role of comprehensible input in second language acquisition, highlighting how ER provides learners with abundant exposure to meaningful and context-rich language. Studies by Elley and Mangubhai (1983) demonstrated that students participating in book-based programs experienced substantial gains in vocabulary and reading comprehension compared to traditional grammar-focused instruction. Similarly, Day and Bamford (1998) argued that ER promotes a love of reading, increases reading fluency, and fosters autonomous learning.

While the efficacy of ER programs is well-documented, gaps remain in understanding their impact on specific learner groups, particularly those with persistently low English proficiency. For instance, Pigada and Schmitt (2006) explored vocabulary acquisition through ER and found notable gains; however, their study focused on intermediate learners rather than those struggling to meet basic language requirements. Additionally, Yamashita (2013)

highlighted the affective benefits of ER, such as increased motivation and reduced anxiety, but the study did not explore learners who repeatedly failed foundational language courses. These gaps point to the need for targeted research on the implementation of ER programs for struggling learners.

At Petra Christian University, the ER program was reintroduced as part of the Written English 1 course to address the needs of students who consistently face vocabulary and reading comprehension challenges. This course is designed for first-year students who have failed the subject multiple times, reflecting a critical need for interventions catering to their unique learning difficulties. Integrating ER into this course aims to provide extensive exposure to graded readers, enabling students to incrementally develop vocabulary and comprehension skills. This study seeks to address the following research questions:

1. How does the reintroduced Extensive Reading program impact the vocabulary size of students with low English proficiency?
2. What effects does the program have on their reading comprehension?
3. How do students perceive the role of ER in improving their language proficiency?

By investigating these questions, this study aims to contribute to the growing body of research on ER, specifically by examining its effectiveness for struggling learners. The findings are expected to offer practical insights for educators and institutions seeking to implement ER programs as a remedial strategy for language learning.

2. Research Methodology

Implementation of ER

There were 12 students joining this program. Their level is lower-intermediate. They had to read level-1 graded readers provided by the teacher for 5 months. The teacher chose level-1 graded readers because these books are within their level of comprehension. This idea follows the characteristics of a successful ER program (Renandya, 2007). They read the books mainly outside the classroom. However, there were times when they read the books as a classroom activity. Within one semester, they had to finish at least 20 books to get full points for the program. This activity was graded because it was part of the Written English 1 class activities. Since the level-1 books were limited, the students had to exchange them with friends. The teacher collected all the level-l books from the library to make it easier for the students to borrow and read them. After they finished reading the book, they had to return it to the teacher so that other students could borrow it. There were 20 books for level 1. If they could finish all level-i books, they could read level-2 books. They could get additional points for each level-2 book they read. These additional points were used as a tool to motivate them to read more. In ER, students are encouraged to read many books (Renandya, 2007).

After reading the book, they were asked to record new words that they did not know the meaning in their index book. They had to write the part of speech, the definition and the example. Moreover, they were also asked to write journals. The length of each journal is 1-2 pages. Several questions could be used as their guidance when they wrote their journals. The teachers used the journals to assess their ER activities. Besides recording the new vocabulary and writing journals, they had vocabulary size tests before they read, after they read for 2 months and a half, and after they read for 5 months. They did the vocabulary size test online. The test is taken from my.vocabularysize.com.

3. Findings

The ER program has an impact on the students 'vocabulary size. The following table shows the students' vocabulary size. Table 1 shows a clear overview of the changes in vocabulary size for each student across the three stages of assessment.

Table 1: Vocabulary size

Student	Before ER	After Reading for 2.5 Months	After Reading for 5 Months
1	5,200	6,600	6,700
2	3,600	5,000	4,900
3	5,950	7,100	7,300
4	5,330	5,800	7,800
5	6,300	7,500	8,200
6	4,750	5,400	5,400
7	6,6350	6,900	6,600
8	5,380	6,600	6,500
9	3,500	5,700	5,200
10	6,500	7,800	7,000
11	6,700	5,900	7,700

From Table 1, it can be seen that before the ER program, the students' vocabulary size was 5,333 on average. The lowest one is 3,700, and the highest one is 6,800. After they read the books for 2.5 months, the average vocabulary size increased to 6,233. The lowest score is 4,500, and the highest one is 7,800. The average kept increasing after they read for 5 months. It became 6,750. Besides that, there were 5 students whose vocabulary size kept increasing (1, 3, 4, 5, 12). The significant improvement is shown by students 3 and 12. Their vocabulary size increased by at least 100% at the end of the program. Furthermore, some students increased after reading for 2.5 months, but their scores decreased slightly at the end of the program (2, 7, 8, 9, 10). The improvement in the students 'vocabulary size supports the idea that ER "allows students to expand their knowledge of general vocabulary" (Domenica, 2010) and "leads to substantial vocabulary learning" (Pigada & Schmitt, 2006). From this research, it is found that when the vocabulary size increases, reading comprehension improves. It is shown in Table 2.

Table 2: Reading comprehension improvement

Student	Before ER	After ER
1	50.5	71
2	49	76
3	48.5	78.5
4	62	76
5	50.5	82
6	49	82
7	45	76
8	36	76.5
9	45	57.5

Student	Before ER	After ER
10	60.5	76
11	37	79.5
12	49.5	73.5

The table shows that there is improvement in the student's reading comprehension. Their score before ER is 48.5 on average, while after ER, their average score is 75.4. All students had better reading comprehension after joining the ER program. Bell's study (2001) also showed that learners in the extensive group achieved significantly higher scores.

4. Discussion

Implementing the Extensive Reading (ER) program in this study notably impacted students' vocabulary size over five months. The data revealed steady improvements across most students, aligning with the theoretical and empirical support for ER as a tool to enhance language acquisition and comprehension.

Vocabulary Growth and the ER Program

Students exhibited significant growth in their vocabulary size after engaging in the ER program. For example, Student 5 increased from 6,600 words to 8,200 words over five months, representing the highest improvement among participants. This aligns with Krashen's (1985) Input Hypothesis, which emphasizes that exposure to comprehensible input in a low-anxiety environment facilitates language acquisition. Through reading level-appropriate graded readers, students were immersed in contexts that allowed them to infer the meaning of new words and integrate them into their lexicon.

However, not all students showed linear progress. For instance, Student 2's vocabulary size peaked at 5,000 words after 2.5 months but slightly declined to 4,900 words after 5 months. This decline may indicate that vocabulary retention is influenced by the quality of engagement with the reading material, as suggested by Nation (2001), who emphasized the importance of deliberate vocabulary learning strategies alongside incidental learning through reading.

Reading Comprehension and Vocabulary Interconnection

The parallel improvements in reading comprehension and vocabulary size further confirm the symbiotic relationship between the two. For example, Student 4, who exhibited substantial vocabulary growth (from 4,800 to 7,800 words), also showed improved comprehension scores (62 to 76). This supports Grabe's (2009) findings that vocabulary knowledge is a critical predictor of reading comprehension performance.

Additionally, Laufer and Ravenhorst-Kalovski (2010) propose that a threshold level of vocabulary knowledge (approximately 95-98% text coverage) is required for adequate reading comprehension. The participants in this study, who began with limited vocabulary, gradually overcame this threshold as their vocabulary expanded, enabling them to process and understand more complex texts.

Role of Motivation and Reading Volume

The results also highlight the motivational aspect of the ER program. Students were encouraged to read at least 20 books, and the inclusion of level-appropriate materials played

a crucial role in sustaining their engagement. Day and Bamford (1998) argue that motivation is a key component in ER, where students' reading enjoyment fosters consistent practice and language development. Furthermore, students who engaged more actively in exchanging books with peers may have experienced more excellent vocabulary gains. This aligns with the findings of Pigada and Schmitt (2006), who demonstrated that encountering words multiple times in different contexts enhances vocabulary acquisition.

5. Conclusion
Implications for Pedagogy
The findings underscore the potential of ER programs to address the challenges faced by low-proficiency students in vocabulary acquisition and reading comprehension. Integrating ER into existing curricula could provide a supportive framework for students to develop language skills autonomously. However, it is essential to provide a wide range of engaging and appropriately leveled materials, as emphasized by Waring (2014), to cater to diverse learner needs. The ER program effectively enhanced students' vocabulary size and reading comprehension, aligning with existing theories and research. ER supports incremental vocabulary acquisition and improved comprehension by providing extensive exposure to language in context. These findings reinforce the importance of integrating ER into language programs to foster sustained language development.

Limitations and Future Research
While the results are promising, the study had limitations, including the small sample size and the lack of a control group for comparison. Future research could explore the long-term retention of vocabulary gained through ER and examine the effects of ER on other language skills, such as writing and speaking.

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