The Journal of Asia TEFL

READ+ vs. *READ*: Investigating Extensive Reading and Vocabulary Knowledge Development Among Malaysian Remedial ESL Learners

Debbita Tan Ai Lin
Universiti Sains Malaysia, Malaysia

Ambigapathy Pandian
Universiti Malaysia Sarawak, Malaysia

Paramaswari Jaganathan
Universiti Sains Malaysia, Malaysia

Research supports extensive reading (ER), which draws on incidental learning, as a primary tool for second/foreign language vocabulary knowledge development. However, while it is deemed useful for vocabulary learning, the claim that ER on its own is sufficient for learners to experience significant lexical gains has been challenged. Instead, a more fitting measure appears to be a combination of incidental and intentional vocabulary learning, with ER followed by explicit vocabulary study. Given the issue of Malaysian tertiary students lacking English vocabulary knowledge, this quasi-experimental study implemented a method incorporating ER using graded readers and explicit vocabulary study (*READ+*) to observe its effectiveness for receptive and productive vocabulary knowledge development, as compared against another method (*READ*) in which only ER was utilised. The study was conducted in a Malaysian public university employing two groups of participants. Each group comprised 14 Malaysian undergraduates of the MUET Band 1 to Band 3 cohort undergoing a preparatory English language course at the university. Pre-, post- and delayed post-testings were carried out using the Vocabulary Knowledge Scale. Results from statistical analyses indicate that the *READ+* group performed significantly better than the *READ* group for both receptive and productive vocabulary knowledge recall and retention.

Keywords: vocabulary development, extensive reading, explicit vocabulary study, *READ+*, tertiary

Introduction and Rationale

Over the years, reading has been postulated as a productive approach to improving word power, with researchers frequently advocating the inclusion of extensive reading programmes as part of language course structures. According to Hunt and Beglar (2005), who emphasised the essentiality of extensive reading, reading is the primary means by which we can immerse learners in a word-rich environment that can potentially result in receptive and productive vocabulary knowledge development. Receptive vocabulary knowledge fundamentally consists of words that we know when we see or hear them, whereas words that we use appropriately when we speak or write constitute productive vocabulary knowledge.

There are several reasons why extensive reading is deemed extremely fitting for language learning. For

one, it is considered a pedagogically efficient approach as two activities – reading and vocabulary acquisition – can occur simultaneously (Huckin & Coady, 1999). ER also facilitates learner autonomy, can be pleasant and motivating, and with specific regards to improving word power, provides learners with the opportunity to meet words in their context of use (Thornbury, 2002), increases sight vocabulary (Coady, 1997; Nagy, Herman, & Anderson, 1985) and can result in substantial receptive and productive vocabulary learning (Pigada & Schmitt, 2006).

Extensive reading on its own mainly draws upon incidental learning and a significant number of learners have benefitted from it. However, the claim that ER alone is sufficient for vocabulary learning has been challenged (Day & Bamford, 1998; Krashen, 1993, 1989). Rashidi and Adivi (2010) remarked that while admitting some vocabulary is certainly gained incidentally through extensive reading, there are researchers who believe it to be insufficient and suggest some direct vocabulary study to make the learning process much more fruitful. Some studies have observed sole reliance on extensive reading to be rather ineffective, with learners enjoying relatively low rates of lexical improvement (Pellicer-Sánchez & Schmitt, 2010; Schmitt, 2008; Waring & Nation, 2004).

The solution appears to be a compromise between incidental and intentional vocabulary learning, with the findings of various studies observing that combining both elements leads to greater vocabulary gains and retention (Guo, 2010; Min & Hsu, 2008; Rosszell, 2007; Sonbul & Schmitt, 2010).

The crucial role that vocabulary plays in language competence and literacy development has been increasingly acknowledged in language acquisition studies, especially so within the domain of second/foreign language acquisition research. Hunt and Beglar (2005) underlined that the heart of language comprehension and use is the lexicon, in tandem with Singleton (1999) who pointed out that the major challenge of learning and using a language, whether as L1 or L2, lies not in the area of broad syntactic principles but in the nitty-gritty of the lexicon. In a similar vein, Zimmerman (1997) acknowledged that vocabulary is central to language and of critical importance to the typical language learner. Nation (2001) also emphasised the importance of developing an adequate vocabulary since a learner's skill in using a language is heavily dependent on the number of words he or she knows.

In Malaysia, the issue of tertiary students lacking English vocabulary knowledge is a serious one. After years of compulsory English classes, Malaysian tertiary students are still confronted with a lack of receptive and productive English vocabulary knowledge, a predicament that in turn translates to poor proficiency in the language and thereon, poor overall academic achievement and unemployment.

A study by Ahmad Azman et al. (2010) involving Malaysian tertiary students enrolled in various academic programmes revealed that a majority of them performed poorly in the Passive Vocabulary Levels Test (Nation, 1990) as well as the Controlled Active Vocabulary Test by Laufer and Nation (1995). In addition, according to Mohini, Aziz and Rosnani (2008), Malaysian students in public universities and other institutions of higher learning in the country possess disturbingly low levels of proficiency in English, while Shahrier, Anton and Mohd Faiz (2011) underlined that MUET Band 1, 2 and 3 students are in dire need of remedial help. The MUET (Malaysian University English Test) is a validated measure of English proficiency managed by the Malaysian Examinations Council.

More recently, Nor Ashikin et al. (2017), in a study involving 156 Malaysian tertiary students, found that more than 50% of the participants failed to achieve the receptive and productive word knowledge levels required for tertiary-level studies. The researchers concluded that the majority of the students were not ready for university learning and that "without intervention, the students may not be able to cope with the demands of their content studies" (p. 58).

Similarly, a study conducted by Kamariah et al. (2016) revealed that the participants had not achieved the optimal threshold level for successful comprehension; the researchers noted the importance and urgency of reaching this optimal level for overall academic success and stressed the inclusion of vocabulary learning interventions to help students improve their lexical knowledge, in tandem with Engku Haliza et al.'s (2016) position – the researchers specifically highlighted the use of extensive reading activities to enhance vocabulary size and reading abilities.

Given the issue of Malaysian tertiary students lacking English vocabulary knowledge, the present study

implemented a method incorporating extensive reading using graded readers and explicit vocabulary study (*READ+*) to observe its effectiveness for receptive and productive vocabulary knowledge development, as compared against another method (*READ*) in which only extensive reading was utilised. The study is guided by the following research questions:

RQ1. Is there a significant difference in the receptive vocabulary knowledge recall and retention between the *READ+* group and the *READ* group?

RQ2. Is there a significant difference in the productive vocabulary knowledge recall and retention between the *READ+* group and the *READ* group?

The issue of poor English proficiency among Malaysian tertiary students has resulted in serious concerns, with the Malaysian government announcing its intention to initiate intensive English programmes for undergraduates grouped under the lowest proficiency MUET bands of 1 to 3, as well as for those with a Cumulative Grade Point Average of below 3.0 (Sasikala, 2010). Also, as pointed out by Nor Ashikin et al. (2017):

Several research conducted among ESL learners from public and private universities in Malaysia have concluded that Malaysian undergraduates on average have poor passive and active vocabulary knowledge. Due to this reason, many of them lack the linguistic competence to meet the academic demands of their studies. (p. 53)

The present study is primarily meant to benefit Malaysian tertiary students who are confronted with a lack of English language receptive and productive vocabulary knowledge, a condition that has been evidenced to translate to poor English proficiency and subsequently, poor academic achievement and possible employment difficulties. The contributions of this study are also of relevance to comparably equivalent individuals faced with similar linguistic difficulties.

Additionally, the study is vital to language instructors and course planners as its findings provide a more comprehensive insight of the potentials as well as the prerequisites of a reading and vocabulary development method that go beyond conventional extensive reading. Lastly, this study is also significant to the shared aim between the Malaysian government and the tertiary institutions in Malaysia to improve the English language proficiency, of which vocabulary knowledge is an important determinant, of Malaysian tertiary students.

Related Literature

The Importance of Vocabulary Knowledge

Much of the research surrounding language acquisition seeks to determine the features associated with language competence, the dominant dimensions upon which proficiency is dependent. Although there is no absolute consensus on the best way to teach or to learn a language, there is an important area of agreement, that being the central importance of vocabulary knowledge for overall language competence. According to Schmitt (2008), the one thing that researchers can agree upon is that vocabulary development is an essential part of mastering a second or foreign language. In fact, various correlation studies have documented the reciprocal relationship between vocabulary size and proficiency in specific language skills.

According to Pikulski and Templeton (2004), it appears almost impossible to overstate the power of words, and that perhaps one of the greatest tools we can give students for succeeding – not only in their education but more generally in life – is a large, rich vocabulary.

This point is well-exemplified and further expanded in August and Shanahan's (2006) report on

developing literacy among second language learners. In their summary, they highlighted that individuals who cannot read and write proficiently in English cannot participate fully in American schools, workplaces or society. Although confined within an American context, the summation is both relevant and applicable to any person or nation geared towards growth. This is particularly so with the advent of globalisation, as well as the apparent rising demand for adequate proficiency in the English language in relation to opportunities for significant development.

Extensive Reading

The following comment is indicative of how important reading is to the development of language competence:

> Reading is good for you. Research supports a stronger conclusion, however: Reading is the only way, the only way we become good readers, develop a good writing style, an adequate vocabulary, advanced grammar, and the only way we become good spellers. (Krashen, 1993, p. 23)

Harold Palmer was the first to use the term 'extensive reading' in referring to large amounts of reading with a focus on the meaning of the text. Michael West called it 'supplementary reading' (in Day & Bamford, 1998) while Hunt (1967) termed individualised ER as 'uninterrupted sustained silent reading'. Elley and Mangubhai (1983, 1981) called their reading programme a 'book flood' whereas Krashen (2004) utilised the terms 'free voluntary reading', 'reading for pleasure' and 'recreational reading'. Although different terms have been coined over the years, they all possess the same conceptual basis as the initial term used by Palmer.

The correlation between vocabulary knowledge and reading has long been noted. According to Harmon and Wood (2008), vocabulary knowledge enables students to comprehend what they read and the act of reading itself provides the opportunity for students to encounter and learn new words. Stahl and Nagy (2006) suggested that this reciprocal relationship underlines the importance of reading volume in increasing students' vocabularies. The notion that we could learn a lot or most of our vocabulary through reading, or more specifically comprehensible written input, is now entrenched within second/foreign language teaching (Waring & Nation, 2004).

Various studies have consistently highlighted the positive effects of extensive reading on language learning at different ages and in many ESL (English as a Second Language)/EFL (English as a Foreign Language) settings (Sheu, 2003). The benefits are manifold, namely in the areas of receptive and productive vocabulary acquisition, reading comprehension, reading speed, grammatical knowledge, writing, and in developing motivation to read.

Simply put, ER is reading – a lot. To read extensively is to read broadly and in quantity over a certain period of time. The chief aim of ER programmes is "to get students reading in the second language and liking it." (Day & Bamford, 1998, p. 6). Day and Bamford (*ibid.*) identified the following criteria found in successful ER programmes:

1) Students read as much as possible;
2) A variety of materials on a wide range of topics is available;
3) Reading materials are well within the linguistic competence of the students;
4) Students select what they want to read;
5) Students read for pleasure, information and general understanding;
6) Reading is individual and silent;
7) The reading rate or speed is usually faster;
8) Reading is its own reward;
9) The teacher is a role model of a reader, an active member of the classroom reading community;
10) Students are oriented to the programme's goals, given guidance, and their progress tracked.

Extensive Reading in Malaysia

In most Malaysian universities, students with MUET bands of 1 to 3 are required to undergo remedial or preparatory English courses (Souba & Kee, 2011). An examination of the available course descriptions as well as related materials of such basic proficiency courses, including the one offered at the university where the present study was carried out, revealed reading practices that are more attuned to intensive reading than extensive reading. Intensive reading, an approach in which reading enjoyment and interest are not made central, involves the use of short texts and explicit focus on language forms (Day & Bamford, 1998). In addition, none of the courses were found to incorporate the interventions (*READ+* and *READ*) designed for the present study.

Furthermore, according to Ruhil et al. (2014), extensive reading is "particularly absent in tertiary education in Malaysia" (p. 109) and asserted that it is timely to make extensive reading a part of English language courses at the tertiary level: "With the immense benefits of ER in mind, there is a need to incorporate or embed ER into ESL courses especially in Malaysia particularly in the tertiary level as ER is absent." (p. 111)

All this points to a need for the incorporation of extensive reading into the framework of Malaysian tertiary education. Also, while ER can be implemented in various ways, a systematic and well-structured programme that takes into account the importance of providing comprehensible input and providing opportunities for decontextualised vocabulary study as a complement to extensive reading can prove to be more beneficial for our remedial English language learners.

Self-Selection

One of the working definitions of extensive reading is that students get to choose the materials that they want to read. However, there is no consensus as to how far the extent of self-selection should extend (Susser & Robb, 1990).

Past observations on the use of class readers (teacher-selected titles read by all members of a class) in ER settings have suggested that they can be challenging, rewarding, motivating and pleasurable (Hill, 1992; Nuttall, 1996; Rosszell, 2010). On a more specific note, Mulling (1995) pointed out that students should *ideally* be allowed to choose whatever they wish to read, but that absolute self-selection can be problematic when it comes to developing word knowledge mainly because it is the reading materials that will serve as the source for target vocabulary.

Graded Readers

In ER settings, it is important especially at the initial stage that reading materials fall within the linguistic competence of the students. According to Day and Bamford (1998), most reading materials are too complex for L2 students to cope with because of their limited linguistic knowledge. Hence, the logical solution would be to produce simplified texts for them, a move which goes against the popular assumption that authentic materials should be used in language teaching and learning. This assumption is based on the idea that authentic materials written by and for native speakers – and not specifically for language teaching and learning – are superior to materials specially written or simplified for language learners. Part of the cult status of authenticity is the idea that the very complexity of authentic materials qualifies them as valuable learning tools (Day & Bamford, *ibid.*).

While authentic materials are often regarded as the best reading materials for the improvement of linguistic competence, they can be potential setbacks for students who are not ready for them. Williams (1983) cautioned that the use of authentic texts often has an effect opposite to that intended when a learner encounters ungraded materials too soon.

The use of graded readers in second/foreign language reading programmes is often based on the premise that learning is more effective when students have access to materials that they can largely

comprehend and enjoy, instead of having to decode texts that are beyond their linguistic abilities. According to Nation and Wang (1999), the strongest argument in favour of graded readers is that without them second/foreign language learners would not be able to experience reading at a level of comfort and ease approaching first language reading because the vocabulary load of unsimplified materials is so high.

Post-Reading Activities

The foregoing discussion of extant literature has observed that ER can play a vital role in the development of receptive and productive word knowledge. What remains inconclusive, however, is whether explicit vocabulary instruction has a place in ER, an approach which mainly draws on incidental learning.

Although incidental vocabulary learning, inferring word meanings from contextual clues, is a useful strategy for consolidating known vocabulary and for vocabulary growth, it is vital to also recognise its limitations. Contexts have been found to be unhelpful as the odds of accurately predicting a word's meaning from written context is relatively low (Beck, McKeown, & Kucan, 2002).

This, however, should be tempered with the knowledge that a major reason contributing to unsuccessful attempts at inferring word meanings through the use of contextual clues is a learner's lack of vocabulary knowledge to begin with. According to Prichard (2008), research has shown that learners should possess a vocabulary size of at least 3,000 word families in order to comfortably attempt lexical inferencing, a situation which can, to a certain extent, be remedied through the use of suitable reading materials such as graded readers.

In essence, it appears that with regards to maximising vocabulary development (for low proficiency learners), the idea of combining reading with explicit vocabulary study is one worth entertaining.

Explicit Vocabulary Study

Language learners in general face much difficulty in acquiring lexical knowledge and actually stand to reap considerable vocabulary gains through intentional vocabulary learning that acts as a complement to incidental vocabulary learning. It has been noted that the effectiveness of ER programmes which incorporate intentional vocabulary learning may have been due to the provision of opportunities for consolidation. According to Prince (1996), isolating words from their contexts and studying them ensures not only that the correct meaning is learnt, but also heightens the potential for the words to be reinforced and as a result, to be better retained.

Commonly, there are two approaches to intentional or explicit vocabulary learning: the teacher/classroom-centred approach and the independent approach. Broadly encapsulated, the former involves the direct teaching of lexical items by a teacher or language instructor within a classroom setting, an approach that Sokmen (1997) opined to be impractical due to matters such as time constraint and noted that learners would actually benefit more from independent study.

While decontextualised word study has been shown to be effective for vocabulary knowledge development, the reality is that learners are unlikely to experience much improvement unless there are opportunities for deep mental processing. McQuirter-Scott (2010) underscored the general consensus among researchers on the issue of effective word study and noted that current research advocate forms of word study that promote elaborate mental processing instead of practices comprising mere memorisation or rote-learning. In other words, simply put, there is a need for the use of practices that compel learners to think, for instance, exercises that require original sentence production instead of those that require students to do no more than memorise word meanings in a given list.

Methodology

Design

The present study employed a quasi-experimental approach, utilising the pretest-posttest-delayed posttest design. In addition, purposive sampling was used with random assignment of groups. Two groups of 14 participants each (*READ+* and *READ*) were involved, composed of first year Malaysian undergraduates aged between 19 to 22 who were registered for a preparatory English language course at a Malaysian public university. The course is reserved for remedial learners of English with MUET scores that fall within the lower proficiency bands of 1 to 3.

The intervention period covered approximately one academic semester and pre-, post- and delayed post-testings were conducted using a modified version of the Vocabulary Knowledge Scale (VKS) by Rosszell (2007) to measure for receptive and productive vocabulary knowledge development (see Appendix). Post-testing was conducted to measure for recall and delayed post-testing, retention. Each testing tier contained the same 30 target words selected based on frequency of occurrence from the graded readers used in the study.

In terms of treatment, the participants of *READ+* experienced a dual-factor approach in which extensive reading was combined with explicit vocabulary study. In contrast, the participants of *READ* experienced a single-factor approach involving only extensive reading.

Procedure and Instruments

The following details the procedures of the study:

1) Preliminary vocabulary size testing using Nation and Beglar's (2007) test was conducted to evaluate if the participants possessed enough vocabulary knowledge to begin reading at the same graded reader level.
2) Pre-testing was conducted using the VKS (Rosszell, 2007).
3) Intervention commenced with the *READ+* and *READ* groups reading seven graded readers at the rate of one book per week:
   a) Results from the preliminary vocabulary size testing indicated that the participants should begin reading at the same graded reader level (Level Three, limited to 3,100 word families).
   b) Following Krashen's (1982) 'i+1' premise which posits that learners' knowledge of the target language develops when they are exposed to input slightly more complex than their current level, the participants were subsequently exposed to Level Four (3,700 word families) and Level Five (5,000 word families) books.
4) After seven consecutive weeks of reading, the *READ+* group experienced three consecutive cycles of explicit vocabulary study using comprehensive vocabulary worksheets at the rate of one worksheet per week:
   a) Each worksheet contained 10 target words.
   b) The participants were instructed to use an online dictionary (Oxford's Online English Dictionary) to help them complete the worksheets.
5) Post- and delayed post-testings were conducted two weeks apart after the intervention period.

The graded readers used were from the Oxford Progressive English Readers series and are listed as follows according to title, original author, syllabus design-text analysis author(s), level, and publication year:

1) David Copperfield / Charles Dickens / David Foulds / Level Three (3,100 word families) / 2005
2) Dr Jekyll and Mr Hyde and Other Stories / Robert Louis Stevenson / David Foulds / Level Four

(3,700 word families) / 2007

3) Twenty Thousand Leagues under the Sea / Jules Verne / David Foulds & Luxfield Consultants / Level Four / 1992

4) The Picture of Dorian Gray / Oscar Wilde / L.A. Hill & David Foulds / Level Four / 2007

5) Frankenstein / Mary Shelley / David Foulds / Level Five (5,000 word families) / 2007

6) Pride and Prejudice / Jane Austen / Katherine Mattock & David Foulds / Level Five / 2007

7) Dracula / Bram Stoker / L.A. Hill & David Foulds / Level Five / 2008

Below (Figure 1) is a sample item from the comprehensive vocabulary worksheets used in the study. The format was adapted from Rosszell's (2007) design and has provisions for receptive knowledge and productive use. The worksheets were also designed to induce elaborate mental processing, hence the inclusion of segments requiring sentence production and translation into Bahasa Malaysia (Malay language, the national language of Malaysia).

Word: agony
Form: Noun

1)   This word is related to the following word/idea:
        _____ (answer may be given in English/Bahasa Malaysia)

2)   This word means:
        _____ (give a synonym or definition in English/Bahasa Malaysia)

3)   I can make my own sentence using this word (agony):
        _____
        (write your sentence in English)

4)   Translate your sentence into Bahasa Malaysia:
        _____

Figure 1. Comprehensive vocabulary worksheet sample item.

Findings

Preliminary Vocabulary Size Testing

Both the *READ+* and *READ* groups sat for the Vocabulary Size Test (Nation & Beglar, 2007) and the results are as follows:

TABLE 1
Vocabulary Size Test Scores: READ+ Group

Word families	*n*	*M*	*SD*
3,100	1		
3,200	2		
3,300	4		
3,400	5		
3,500	2		
	14	3,335.71	115.07

TABLE 2
Vocabulary Size Test Scores: READ Group

Word families	n	M	SD
3,200	2		
3,300	6		
3,400	4		
3,500	1		
3,600	1		
	14	3,350	109.19

Tables 1 and 2 show the test results for the *READ+* group ($n = 14$, $M = 3,335.71$, $SD = 115.07$) and the *READ* group ($n = 14$, $M = 3,350$, $SD = 109.19$) respectively. On the whole, the results indicated that the participants should commence preview reading at the same graded reader level – Level Three, limited to 3,100 word families. Also, the mean scores were similar at 3,335.71 and 3,350 word families respectively.

Pre-Test Results: Receptive and Productive Vocabulary Knowledge

The VKS (Rosszell, 2007) was used for pre-, post- and delayed post-testing purposes, covering both receptive and productive vocabulary knowledge development. The pre-test results for both groups are as follows:

TABLE 3
Pre-Test Results: Receptive Vocabulary Knowledge

Group	M	SD
READ+	65.21	8.01
READ	65.86	8.4

Table 3 shows the mean scores of the pre-test for both groups (*READ+* and *READ*), indicating baseline similarity at 65.21 ($SD = 8.01$) and 65.86 ($SD = 8.4$) respectively.

TABLE 4
Pre-Test Results: Productive Vocabulary Knowledge

Group	M	SD
READ+	19.79	2.89
READ	20.43	2.56

Table 4 shows the mean scores of the pre-test for both groups, indicating baseline similarity at 19.79 ($SD = 2.89$) and 20.43 ($SD = 2.56$) respectively.

Post- and Delayed Post-Test Results: Receptive Vocabulary Knowledge Recall and Retention

Table 5 indicates that the mean scores of the post-test, which measured the participants' receptive vocabulary knowledge recall, for the *READ+* and *READ* groups were 116.07 ($SD = 15.42$) and 83.86 ($SD = 14.35$) respectively. Also, the Sig. (*p*) value obtained was less than .05 ($p < .05$) at $p = .000$, indicating statistically significant differences between group means at the post-test level. Hence, the overall results indicate that the *READ+* group performed significantly better than the *READ* group in terms of receptive vocabulary knowledge recall.

TABLE 5
Post-Test Results: Receptive Vocabulary Knowledge Recall

Group	M	SD	Sig.
READ+	116.07	15.42	
READ	83.86	14.35	.000

Table 6 indicates that the mean scores of the delayed post-test, which measured the participants' receptive vocabulary knowledge retention, for the *READ+* and *READ* groups were 113.43 (*SD* = 15.56) and 79.93 (*SD* = 14.51) respectively. Also, the Sig. (*p*) value obtained was less than .05 (*p* < .05) at *p* = .000, indicating statistically significant differences between group means at the delayed post-test level. Hence, the overall results indicate that the *READ+* group performed significantly better than the *READ* group in terms of receptive vocabulary knowledge retention.

TABLE 6
Post-Test Results: Receptive Vocabulary Knowledge Retention

Group	M	SD	Sig.
READ+	113.43	15.56	
READ	79.93	14.51	.000

Post- and Delayed Post-Test Results: Productive Vocabulary Knowledge Recall and Retention

Referring to Table 7, the mean scores of the post-test, which measured the participants' productive vocabulary knowledge recall, for the *READ+* and *READ* groups were 50.22 (*SD* = 7.31) and 39.93 (*SD* = 6.86) respectively. Also, the Sig. (*p*) value obtained was less than .05 (*p* < .05) at *p* = .000, indicating statistically significant differences between group means at the post-test level. Hence, the overall results indicate that the *READ+* group performed significantly better than the *READ* group in terms of productive vocabulary knowledge recall.

TABLE 7
Post-Test Results: Productive Vocabulary Knowledge Recall

Group	M	SD	Sig.
READ+	50.22	7.31	
READ	39.93	6.86	.000

With reference to Table 8, the mean scores of the delayed post-test, which measured the participants' productive vocabulary knowledge retention, for the *READ+* and *READ* groups were 48.07 (*SD* = 7.94) and 36.43 (*SD* = 7.37) respectively. Also, the Sig. (*p*) value obtained was less than .05 (*p* < .05) at *p* = .000, indicating statistically significant differences between group means at the delayed post-test level. Hence, the overall results indicate that the *READ+* group performed significantly better than the *READ* group in terms of productive vocabulary knowledge retention.

TABLE 8
Post-Test Results: Productive Vocabulary Knowledge Retention

Group	M	SD	Sig.
READ+	48.07	7.94	
READ	36.43	7.37	.000

In sum, at the post- and delayed post-test levels, the results indicate that the *READ+* group performed significantly better than the *READ* group for both receptive and productive vocabulary knowledge. Levene's Test was also performed to check for homogeneity of variances. The resulting *p*-values were all more than .05 (*p* > .05), indicating that assumptions of homogeneity of variances were duly met.

Discussion and Conclusion

The focus of this study is on the effects of two intervention methods on vocabulary knowledge development. Given the issue of Malaysian tertiary students lacking receptive and productive English vocabulary knowledge, the researchers implemented a method of vocabulary learning incorporating extensive reading and explicit vocabulary study (*READ+*) in an effort to determine its effectiveness for receptive and productive vocabulary knowledge development, as compared against another method (*READ*) in which only extensive reading was utilised.

In essence, the study's findings indicate *READ+* to be more effective for receptive and productive vocabulary knowledge development than *READ*, with the *READ+* group consistently and significantly outperforming the *READ* group in terms of receptive and productive vocabulary knowledge recall and retention.

With specific reference to Research Question 1 and its accompanying hypothesis, the evidence asserts that extensive reading can effectively contribute to receptive vocabulary knowledge development, and that the integration of explicit vocabulary study yields even higher levels of development. This is supportive of the findings of similar studies (e.g., Guo, 2010; Min & Hsu, 2008; Rosszell, 2007; Sonbul & Schmitt, 2010).

It is also important to highlight that the performance of the *READ* group shows that the study's ER-based incidental vocabulary learning method did not only contribute to receptive vocabulary knowledge gains, but that the gains were largely sustained over time. In other words, the method resulted in gains that were retained in memory even after a period of time, indicating that the knowledge gained was resistant to decay. More interestingly, the performance of the *READ+* group demonstrates that a division of labour between the study's ER-based method and intentional vocabulary learning method (comprehensive vocabulary worksheets) yielded even more gains that were also largely sustained over time.

With regards to Research Question 2 and its corresponding hypothesis, the evidence demonstrates that extensive reading can effectively contribute to productive vocabulary knowledge development as well, and that the integration of direct vocabulary study yields even higher levels of development. It is unfortunate that there exists a scarcity with regards to ER-based research that also examines productive vocabulary knowledge development, and the closest comparable study available is by Rosszell (*ibid.*) on tertiary-level Japanese English language learners. He found that although reading graded readers contributed to receptive and productive vocabulary knowledge development, the integration of intentional vocabulary learning yielded even higher levels of development for both components.

Also, the *READ* group's performance demonstrates that the study's ER-based incidental vocabulary learning method did not only contribute to productive vocabulary knowledge gains, but that the gains were largely sustained over time. Meanwhile, the performance of the *READ+* group demonstrates that combining the study's ER-based method with the use of comprehensive vocabulary worksheets yielded even more gains that were also largely sustained over time.

It is to be noted that because the study was constrained by the number of weeks available in one academic semester, the interval between post-testing and delayed post-testing was relatively short at two weeks. Despite this, the results are promising as considerable word knowledge decay has been observed after an interval of just seven days (e.g., Waring & Takaki, 2003).

This study has, in essence, helped to identify a useful method of learning for the vocabulary knowledge development of tertiary learners. The results of the study have made it possible for us to affirm the greater effectiveness of *READ+*, a largely non-disruptive method for supplementary learning that can effectively help tertiary students develop both their receptive and productive vocabulary knowledge and most likely their proficiency in the English language as well, as word knowledge has been repeatedly shown to be a major contributor to overall language proficiency.

The present study is not without its limitations. It provides only a localised cohort of data from a single institution, examining only a limited number of participants. Future research should attempt to examine a

larger number of participants from more countries, institutions and proficiency levels. It would also be interesting for future research to compare between ethnic groups to observe if cultural differences impact or influence the reading-learning process and if so, how and to what extent.

The Authors

Debbita Tan Ai Lin (Dr.) (Corresponding Author) serves as Senior Lecturer at the School of Languages, Literacies and Translation, Universiti Sains Malaysia. Her research interests include second/foreign language acquisition, reading and media-based interventions, lexical development, psycholinguistics, and language testing.

School of Languages, Literacies and Translation
Universiti Sains Malaysia
11800 USM
Penang, Malaysia
Email: debbita_tan@usm.my
Phone: +6046533405

Ambigapathy Pandian (Professor Dr.) is Dean of the Faculty of Language and Communication, Universiti Malaysia Sarawak. His research interests include language and literacy education, TESOL, sociolinguistics, and higher education. He is also currently Professorial Fellow of Charles Darwin University, Australia.

Faculty of Language and Communication
Universiti Malaysia Sarawak
94300 Kota Samarahan, Kuching
Sarawak, Malaysia
Email: pambigapathy@unimas.my
Phone: +6082581749

Paramaswari Jaganathan (Dr.) serves as Senior Lecturer at the School of Languages, Literacies and Translation, Universiti Sains Malaysia. Her research interests include ELT, TESL, ESP, language and media, and psychology of language.

School of Languages, Literacies and Translation
Universiti Sains Malaysia
11800 USM
Penang, Malaysia
Email: parames@usm.my
Phone: +6046533405

References

Ahmad Azman Mokhtar, Rafizah Mohd Rawian, Mohamad Fadhili Yahaya, Azaharee Abdullah, Mahani Mansor, Mohd Izwan Osman, Zahrullaili Ahmad Zakaria, Aminarashid Murat, Surina Nayan, & Abdul Rashid Mohamed (2010). Vocabulary knowledge of adult ESL learners. *CCSE English Language Teaching*, *3*(1), 71-80.

August, D., & Shanahan, T. (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on language-minority children and youth*. Mahwah, NJ: Lawrence Erlbaum.

Beck, I. L., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction.* New York, NY: Guilford Press.

Coady, J. (1997). L2 vocabulary acquisition through extensive reading. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 225-237). Cambridge, UK: Cambridge University Press.

Day, R. R., & Bamford, J. (1998). *Extensive reading in the second language classroom.* Cambridge, UK: Cambridge University Press.

Elley, W. B., & Mangubhai, F. (1981). *The impact of a book flood in Fiji primary schools.* Wellington: New Zealand Council for Educational Research.

Elley, W. B., & Mangubhai, F. (1983). The impact of reading on second language learning. *Reading Research Quarterly*, *19*(1), 53-67.

Engku Haliza Engku Ibrahim, Isarji Sarudin, & Ainon Jariah Muhamad (2016). The relationship between vocabulary size and reading comprehension of ESL learners. *English Language Teaching*, *9*(2), 116-123.

Gu, P. Y. (2003). Vocabulary learning in a second language: Person, task, context and strategies. *TESL-EJ*, *7*(2). Retrieved from http://tesl-ej.org/ej26/a4.html

Guo, Y. L. (2010). L2 vocabulary acquisition through reading: Incidental learning and intentional learning. *Chinese Journal of Applied Linguistics*, *33*(1), 74-93.

Harmon, J. M., & Wood, K. D. (2008). Content-area vocabulary: A critical key to conceptual learning. *Adolescent Literacy in Perspective*, October, 2-6. Retrieved from http://ohiorc.org/orc_documents/ORC/Adlit/InPerspective/2008-10/in_perspective_2008-10.pdf

Hill, D. (1992). *The EPER guide to organizing programmes of extensive reading.* Edinburgh, UK: University of Edinburgh (IALS).

Huckin, T., & Coady, J. (1999). Incidental vocabulary acquisition in a second language. *Studies in Second Language Acquisition*, *21*(2), 181-193.

Hunt, L. C. (1967). Evaluation through teacher-pupil conferences. In T.C. Barnett (Ed.), *The evaluation of children's reading achievement* (pp. 111-125). Newark, DE: International Reading Association.

Hunt, A., & Beglar, D. (2005). A framework for developing EFL reading vocabulary. *Reading in a Foreign Language*, *17*(1), 23-59.

Kamariah Yunus, Mahani Mohamed, & Bordin Waelateh (2016). The breadth of receptive vocabulary knowledge among English major university students. *Journal of Nusantara Studies*, *1*(1), 7-17.

Krashen, S. (1982). *Principles and practice in second language acquisition.* New York, NY: Prentice Hall.

Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *Modern Language Journal*, *73*(4), 440-464.

Krashen, S. (1993). *The power of reading: Insights from the research.* Englewood, CO: Libraries Unlimited.

Krashen, S. (2004). *The power of reading: Insights from the research* (2nd ed.). Englewood, CO: Libraries Unlimited.

Laufer, B., & Nation, I. S. P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics*, *16*(3), 307-322.

McQuirter-Scott, R. (2010). *What works? Research into practice.* The Literacy and Numeracy Secretariat, Research Monograph No. 27 (September).

Min, H. T., & Hsu, W. S. (2008). The impact of supplemental reading on vocabulary acquisition and retention with EFL learners in Taiwan. *Journal of National Taiwan Normal University: Humanities and Social Sciences*, *53*(1), 83-115.

Mohini Mohamed, Aziz Nordin, & Rosnani Hashim (2008). Impact on the implementation of bilingualism in science and mathematics teaching in the Malaysian school system. Retrieved from http://kajianberasaskansekolah.wordpress.com/2008/04/24/impact-on-the-implementation-of-bilingualism-in-science-and-mathematics-teaching-in-malaysian-school-system/

Mulling, S. S. (1995). Individualization made easy: Student-centered activities for reading and vocabulary

instruction. *TESL Reporter*, *28*(2), 67-74.

Nagy, W. E., & Herman, P. A. (1987). Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. In M. McKeown & M. Curtis (Eds.), *The nature of vocabulary acquisition* (pp. 19-35). Mahwah, NJ: Lawrence Erlbaum.

Nagy, W. E., Herman, P. A., & Anderson, R. C. (1985). Learning words from context. *Reading Research Quarterly*, *20*(2), 233-253.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge, UK: Cambridge University Press.

Nation, I. S. P., & Beglar, D. (2007). A vocabulary size test. *The Language Teacher*, *31*(7), 9-13.

Nation, I. S. P., & Wang, K. (1999). Graded readers and vocabulary. *Reading in a Foreign Language*, *12*(2), 355-380.

Nor Ashikin Ab Manan, Noraziah Azizan, & Nur Fatima Wahida Mohd Nasir (2017). Receptive and productive vocabulary level of diploma students from a public university in Malaysia. *Journal of Applied Environmental and Biological Sciences*, *7*, 53-59.

Nuttall, C. (1996). *Teaching reading skills in a foreign language* (2nd ed.). Oxford, UK: Heinemann.

Pellicer-Sanchez, A., & Schmitt, N. (2010). Incidental vocabulary acquisition from an authentic novel: Do Things Fall Apart? *Reading in a Foreign Language*, *22*(1), 31-55.

Pigada, M., & Schmitt, N. (2006). Vocabulary acquisition from extensive reading: A case study. *Reading in a Foreign Language*, *18*(1), 1-28.

Pikulski, J. J., & Templeton, S. (2004). Teaching and developing vocabulary: The key to long-term reading success. *Current Research in Reading and Language Arts*. Retrieved from http://www.eduplace.com/marketing/nc/pdf/author_pages.pdf

Prichard, C. (2008). Evaluating L2 readers' vocabulary strategies and dictionary use. *Reading in a Foreign Language*, *20*(2), 216-231.

Prince, P. (1996). Second language vocabulary learning: The role of context versus translations as a function of proficiency. *The Modern Language Journal*, *80*(4), 478-493.

Rashidi, N., & Adivi, A. G. (2010). Incidental vocabulary learning through comprehension-focused reading of short stories. *Journal of English Language Teaching and Learning*, *53*(217), 111-129.

Rosszell, H. R. (2007). *Extensive reading and intensive vocabulary study in a Japanese university*. (Unpublished doctoral dissertation). Temple University, Japan.

Rosszell, H. R. (2010). Class readers: The learner's perspective. *The Global Japanese Studies Review (Meiji University)*, *2*(1), 51-76.

Ruhil Amal Azmuddin, Zuraina Ali, Ezihaslinda Ngah, Liyana Mohd Tamili, & Nooradelena Mohd Ruslim (2014). Extensive reading using graded readers. *International Journal of Research in Social Sciences*, *3*(8), 109-113.

Sasikala, N. (2010). *The impact of multimodal texts on the development of English language proficiency*. (Unpublished doctoral thesis). University of Adelaide, Australia.

Schmitt, N. (2008). Instructed second language vocabulary learning. *Language Teaching Research*, *12*(3), 329-363.

Shahrier Pawanchik, Anton Abdulbasah Kamil, & Mohd Faiz Hilmi (2011). Change of policy on English and its implications on institutions of higher learning. *American Journal of Social and Management Sciences*, *2*(2), 225-230.

Sheu, S. P. H. (2003). Extensive reading with EFL learners at beginning level. *TESL Reporter*, *36*(2), 8-26.

Singleton, D. (1999). *Exploring the second language mental lexicon*. Cambridge, UK: Cambridge University Press.

Sokmen, A. J. (1997). Current trends in teaching second language vocabulary. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 237-257). Cambridge, NY: Cambridge University Press.

Sonbul, S., & Schmitt, N. (2010). Direct teaching of vocabulary after reading: Is it worth the effort? *ELT Journal*, *64*(3), 253-260.

Souba Rethinasamy, & Kee, M. C. (2011). The Malaysian University English Test (MUET) and its use for placement purposes: A predictive validity study. *Electronic Journal of Foreign Language Teaching*, *8*(2), 234-245.

Stahl, S. A., & Nagy, W. E. (2006). *Teaching word meanings*. Mahwah, NJ: Lawrence Erlbaum.

Susser, B., & Robb, T. N. (1990). EFL extensive reading instruction: Research and procedure. *JALT Journal*, *12*(2), 161-185.

Thornbury, S. (2002). *How to teach vocabulary*. London, UK: Longman.

Waring, R., & Nation, I. S. P. (2004). Second language reading and incidental vocabulary learning. *Angles on the English Speaking World*, *4*, 97-110.

Waring, R., & Takaki, M. (2003). At what rate do learners learn and retain new vocabulary from reading a graded reader? *Reading in a Foreign Language*, *15*(2), 130-163.

Wesche, M., & Paribakht, T. S. (1996). Assessing second language vocabulary knowledge: Depth versus breadth. *Canadian Modern Language Review*, *53*(1), 13-40.

Williams, E. (1983). Communicative reading. In K. Johnson & D. Porter (Eds.), *Perspectives in communicative language teaching* (pp. 171-183). London, UK: Macmillan.

Zimmerman, C. B. (1997). Do reading and interactive vocabulary instruction make a difference? An empirical study. *TESOL Quarterly*, *31*(1), 121-140.

Appendix

The Original Version of the Vocabulary Knowledge Scale by Wesche and Paribakht (1996)

1	I don't remember having seen this word before.
2	I have seen this word before, but I don't think I know what it means.
3	I have seen this word before, and I think it means _____ [synonym or translation]
4	I know this word. It means _____ [synonym or translation]
5	I can use this word in a sentence: _____

The Modified Version of the Vocabulary Knowledge Scale by Rosszell (2007)

1	I do not think I have ever seen this word. Tick (√) if true: _____ (do not proceed)
2	I have seen this word before, but I do not know what it means. Tick (√) if true: _____ (do not proceed)
3	I have seen this word before and I think it is related to the following word/idea: _____ (answer may be given in English/Bahasa Malaysia*)
4	I have seen this word before and I think it means: _____ (give a synonym or definition in English/Bahasa Malaysia)
5	I cannot use this word (agony) in a sentence. Tick (√) if true: _____ (do not proceed)
6	I can use this word (agony) in a sentence: _____ (write your sentence in English)
7	Translate your sentence into Bahasa Malaysia: _____

Instead of Japanese (Rosszell's version), the present study utilised Bahasa Malaysia (Malay language, the national language of Malaysia)