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The idea that learners can develop their language knowledge through extensive reading is attractive for several reasons. First, reading is essentially an individual activity and therefore learners of different proficiency levels could be learning at their own level without being locked into an inflexible class program. Second, it allows learners to follow their interests in choosing what to read and thus increase their motivation for learning. Third, it provides the opportunity for learning to occur outside the classroom.

However, before investing time and money in an extensive reading program, it is necessary to be sure that the learning that occurs from it is not restricted solely to the improvement of reading fluency, even though this in itself is a useful goal. This article looks at the language learning benefits from extensive reading, looking both at extensive reading of texts prepared for native speakers and those prepared for non-native speakers.

An important issue considered in this article is the vocabulary load of the texts that learners should read in extensive reading. Laufer's (1989) research suggests that learners need to be familiar with at least 95% of the running words in a text if they want to comprehend and thus perhaps learn from the text. In the following section we will see if texts for native speakers can meet these requirements.

Extensive Reading by Non-native Speakers of Texts Written for Young Native Speakers

The "book flood" studies reviewed by Elley (1991) show striking increases made on measures of language use, language knowledge, and academic performance. The studies of extensive reading that Elley was involved in are the most substantial in terms of length (12-36 months) and number of students (from over a hundred to several thousand). The book flood studies involved learners spending the greater part of their class time reading books that interested them.

The measures of language use in Elley, and Elley and Mangubhai's studies included measures of oral language, reading comprehension, and writing. An interesting finding in some of the studies was the improvement made in writing, which appeared most dramatically in the tests given two years after the beginning of the book flood. Elley and Mangubhai (1981b, p. 23) comment that:

It is tempting to conclude that the Book Flood pupils had reached a threshold level in their language growth which enabled them to exploit

The Language Learning Benefits of Extensive Reading

多読に関する実験的研究では、若い母語話者のために書かれた単純化されていないテキストや、非母語話者のために平易に書かれたテキストを使用している。そうしたテキストは両方とも言語学習にとって好ましい状況を与えており、それらの使用は結果として内容のある学習となっている。実験に基づく研究では、言語使用の質、言語知識、総合的な学問的成功において、多読によって多くの利点が出ることが示されている。効果を上げるためには、多読のプログラムは適切なレベルでの大量の読解をすることが必要となる。この論文では学習者がどの程度読解をすべきかを示す頻度のデータを使用している。

their passive vocabulary and to produce more fluent interesting language of their own, an accomplishment which the Control group pupils were not ready for.

The improvements in reading, listening, and oral language were equally striking but not so unexpected, because the "shared book" approach used in one of the groups of classes involved learners in listening, reading, and orally joining in with the reading of a story.

The language knowledge measures included word recognition where learners had to read aloud a list of words, vocabulary knowledge, and grammar. The vocabulary knowledge measures did not measure total vocabulary size or vocabulary growth.

The measures of academic success involved the examinations used across the school system. Learners in the book flood groups had a greater than normal success rate in these examinations. Although there were no formal measures of learners' attitudes to reading, informal observation and teacher reports indicated that book flood learners enjoyed reading.

These studies present compelling evidence of the improvements in second language acquisition that can be brought about by such programs. Elley (1991, pp. 378-379) attributes the success to five factors.

- 1 Extensive input of meaningful print
- 2 Incidental learning
- 3 The integration of oral and written activity
- 4 Focus on meaning rather than form
- 5 High intrinsic motivation

The control groups in the studies were classes following a syllabus of language items that were presented one by one with substantial amounts of form focused activity.

The books that were used in the experiments were generally "well-illustrated, and used only common-sense controls over the presentation of vocabulary and structures" (Elley & Mangubhai, 1981a, p. 26). There was language control only to the extent that "appropriateness of difficulty and interest were the guiding principles of book selection" (Elley, 1991, p. 402). The books used were not graded readers but were ones that young native speakers of English would read. The children in the book flood studies were aged from 6 to 12 years old, and so the content matter of such books was appropriate.

Let us look at two books written without formal vocabulary control for young native speakers and compare them with a graded reader written to fit into a prescribed vocabulary level. One of the texts *The Three Little Pigs* in the Ladybird series seems to have

been used in the Fiji book flood study (Elley & Mangubhai, 1981, p. 26).

Table 1 presents the vocabulary profile of the three texts showing the percentage of the running words in the 1,000 most frequent words according to West's (1953) *General Service List*, the words in the second 1,000 most frequent words, the names of characters and places, and the remaining words.

Table 1. The percentage coverage (and cumulative coverage) of three texts by the high frequency words of English, names, and all the remaining words

The books	1st 1,000	2nd 1,000	Names	Remaining words
<i>Dry Days for Climbing George</i>	76.8% (88.5%)	11.7% (93.6%)	5.1% (100.0%)	6.4%
<i>The Three Little Pigs</i>	78.1%	11.1% (89.2%)	7.5% (96.7%)	3.3% (100.0%)
<i>Indonesian Love Story</i>	82.7%	8.4% (91.1%)	7.9% (99.0%)	1.0% (100.0%)

In *The Three Little Pigs* pig, wolf, and (Mr.) Smith make up the total of names. Pig is actually in the second 1,000 words but for comparison purposes it was counted as a name. Note that the names of the characters and places make up a large proportion of the words not in the first 2,000 words.

We can see from Table 1 that the graded reader *Indonesian Love Story* provides greater control with 99% of the words coming from the most frequent 2,000 words of English plus names. But the figures of 96.7% and 96.3% are still good coverage figures. In *The Three Little Pigs* just one word in every 30 will be outside the lists, and in *Dry Days for Climbing George* by Margaret Mahy (1988) one word in every 22. In addition, several of the words outside the lists were repeated several times (*huff, puff, chinny, chin*). Elley and Mangubhai's motivation for choosing books written for young native speakers was probably that these were much more attractively illustrated, and interesting for young readers. It also seems that in terms of vocabulary control such texts compare favourably with graded readers.

A study of texts aimed at teenage native speakers of English showed that such texts are not as accessible for non-native speakers as graded readers (Hirsh & Nation, 1992).

Extensive Reading with Graded Readers

In two experiments, one conducted with second language learners in England for a maximum of 60 hours (Tudor & Hafiz, 1989; Hafiz & Tudor, 1989), and one with learners in Pakistan for a maximum of 90 hours (Hafiz & Tudor, 1990), Hafiz and Tudor looked at the effect of extensive reading of graded readers on learners' language use. The study in England used

standardised reading and writing measures and analyses of the students' writing, while the study in Pakistan used only analyses of students' writing. Even with these limited and indirect measures, improvement was seen, particularly in writing. There was no significant change in the vocabulary used in writing for the group in England, but this is not surprising as the vocabulary of the graded readers was probably far below the learners' vocabulary level (Hafiz & Tudor, 1990, p. 36). There were some indications that the simplified syntax of the graded readers seemed to encourage the learners to simplify the syntax in their own writing. All of Hafiz and Tudor's measures were of language use. It is likely if they included more direct measures of vocabulary size, word recognition, and English structures as Elley and Mangubhai did, then there would be even more signs of improvement. Tsang (1996) also found very positive effects of simplified reading on learners' writing performance.

Extensive Reading of Unsimplified Texts

Several correlational studies looking at the effect of a variety of factors on L2 proficiency have shown the importance of extensive reading. Huang and van Naerssen (1987) found that reading outside class was the most significant predictor of oral communicative ability. Green and Oxford (1995) in a study of the effect of learning strategies on language proficiency found that reading for pleasure was most strongly related to proficiency. Gradman and Hanania (1991) found that out of class reading was the most important direct contributor to TOEFL test performance. This study raised the important issue of causality through the use of the LISREL program for analysing the data. Gradman and Hanania found the strongest connection going from individual out of class reading to TOEFL results. They found that oral exposure, speaking and listening outside class and communicative oral use affected out of class reading.

It is clear from these studies that extensive reading can be a major factor in success in learning another language. It is likely that the relationship between extensive reading and language proficiency is changing and complex. Success in formal study may make reading more feasible. Success in reading may increase motivation for further study and reading.

These correlational studies are supported by Pickard's (1996) survey of the out of class strategies used by a group of German learners of English in Germany, where extensive reading of newspapers, magazines and novels ranked very high on the list of strategies used for learning English. Reading and other input sources may be the only practical options for out of class language development for some learners.

In a study using SRA reading boxes, Robb and Susser (1989) found that extensive reading of SRA material and readers written for American teenagers produced several results superior to a skills focused reading course involving less reading. The extensive

reading program also gave the learners more enjoyment both of reading and writing. The effects of extensive reading were thus both cognitive and affective.

Extensive Reading and Vocabulary Growth

Experimental studies of second language learners' vocabulary learning from reading have not come near to approaching the careful design of first language studies best exemplified by the work of Nagy, Herman and Anderson (1985).

The second language studies (Day, Omura, & Hiramatsu, 1991; Pitts, White, & Krashen, 1989; Saragi, Nation, & Meister, 1978) used tests that were not sensitive to small amounts of learning (see Joe, Nation, & Newton, forthcoming), did not adequately control text difficulty, and generally lacked careful control of the research design.

In spite of these shortcomings, there is no reason to doubt the finding that learners incidentally gain small amounts of vocabulary knowledge from each meaning focused reading of an appropriate text. The most important finding from first language studies is that this vocabulary learning is not an all-or-nothing piece of learning for any particular word, but that it is a gradual process of one meeting with a word adding to or strengthening the small amounts of knowledge gained from previous meetings. The implications of this finding are very important for managing extensive reading. Essentially, vocabulary learning from extensive reading is very fragile. If the small amount of learning of a word is not soon reinforced by another meeting, then that learning will be lost. It is thus critically important in an extensive reading program that learners have the opportunity to keep meeting words that they have met before. This can be done in two ways: (a) by doing large amounts of extensive reading at suitable vocabulary levels so that there are repeated opportunities to meet wanted vocabulary, and (b) by complementing the extensive reading program with the direct study of vocabulary. A well-balanced language program has appropriate amounts of message directed activity and language focused activity.

There is a rough way of providing a guideline for deciding how much extensive reading learners at a particular level should be doing. The two factors determining the necessary amount of reading are (a) the frequency level of the learners' vocabulary, and (b) the length of time that the memory of a meeting with a word is retained. For example, if a learner has a vocabulary of around 1,000 words and is thus expanding her vocabulary at the 1,001-2,000 word level, on average each word at this word level will appear once in every 10,000-15,000 running words (see Table 2). If, for example, the memory of a meeting with a word lasts for one week, then the learner will need to read at least 10,000 words per week (40 pages of 250 words per page) to ensure that there is another meeting with the word before the memory of it is lost. At this level, this is the equivalent of one graded reader

every one to two weeks. As learners' vocabulary grows larger, the new vocabulary is of lower frequency, and therefore the amounts of extensive reading would need to be greater. The length of graded readers increases as the vocabulary level increases, so up to the 2,000 level approximately a book a week is the right amount.

Table 2 shows, for example, that each word at the 1500 word level occurs 75 times per million running words. This means that a learner with a vocabulary of the most frequent 1500 words would need to read 13,000 running words in order to meet a repetition of words at this level to reinforce a previous meeting.

The figures in column two are from Francis and Kuçera (1982). Column three converts the figures in column two to a ratio. The lengths in column four are from the Longman Structural Readers Handbook (1976). The weakness of this analysis is that the figures of occurrences per 1,000,000 running words are based on unsimplified texts. Simplified texts, especially long ones, provide more repetitions of high frequency words (Wodinsky & Nation, 1988).

Conclusion

The research on extensive reading shows that there is a wide range of learning benefits from such activity. Experimental studies have shown that not only is there improvement in reading, but that there are improvements in a range of language uses and areas of language knowledge. Although studies have focused on language improvement, it is clear that there are affective benefits as well. Success in reading and its associated skills, most notably writing, makes learners come to enjoy language learning and to value their study of English.

However, the figures on repetition indicate that teachers need to be serious about extensive reading programs particularly in ensuring that learners do large amounts of reading. The benefits of extensive reading do not come in the short term. Nevertheless, the substantial long-term benefits justify the high degree of commitment needed.

References

Day, R. R., Omura, C., & Hiramatsu, M. (1991). Incidental EFL vocabulary learning and reading. *Reading in a Foreign Language*, 7(2), 541-551.
 Elley, W. B. (1989). Vocabulary acquisition from listening to stories. *Reading Research Quarterly*, 24(2), 174-187.
 Elley, W. B. (1991). Acquiring literacy in a second language: The effect of book-based programs. *Language Learning*, 41(3), 375-411.
 Elley, W. B., & Mangubhai, F. (1981a). *The impact of a book flood in Fiji primary schools*. Wellington: NZCER.
 Elley, W. B., & Mangubhai, F. (1981b). The long-term effects of a book flood on children's language growth. *Directions*, 7, 15-24.

Table 2. Word frequency level and the average number of running words needed to meet each word again

Vocabulary frequency level	Word frequency in 1,000,000 running words	Average number of running words between repetitions of each word	Graded reader length
1000 word level	113 per 1,000,000	1 per 10,000	20,000
1500	75	1 per 13,000	35,000
2000	56	1 per 20,000	up to 50,000
3000	34	1 per 30,000	
4000	23	1 per 43,000	
5000	16	1 per 62,500	
6000	8	1 per 125,000	

Francis, W. N., & Kuçera, H. (1982). *Frequency analysis of English usage*. Boston: Houghton Mifflin Company.
 Gradman, H., & Hanania, E. (1991). Language learning background factors and ESL proficiency. *Modern Language Journal*, 75(1), 39-51.
 Green, J. M., & Oxford, R. (1995). A closer look at learning strategies, L2 proficiency and gender. *TESOL Quarterly*, 29(2), 261-297.
 Hafiz, F. M., & Tudor, I. (1990). Graded readers as an input medium in L2 learning. *System*, 18(1), 31-42.
 Hafiz, F. M., & Tudor, I. (1989). Extensive reading and the development of language skills. *ELT Journal*, 43(1), 4-13.
 Hirsh, D., & Nation, P. (1992). What vocabulary size is needed to read unsimplified texts for pleasure? *Reading in a Foreign Language*, 8(2), 689-696.
 Huang, X., & van Naerssen, M. (1987). Learning strategies for oral communication. *Applied Linguistics*, 8(3), 287-307.
 Joe, A., Nation, P., & Newton, J. (forthcoming). Sensitive vocabulary tests.
 Laufer, B. (1989). What percentage of text-lexis is essential for comprehension? In C. Lauren & M. Nordman (Eds.), *Special language: From humans thinking to thinking machines*. Clevedon: Multilingual Matters.
 Longman Structural Readers Handbook. (1976). London: Longman. (2nd ed.)
 Nagy, W. E., Herman, P., & Anderson, R. C. (1985). Learning words from context. *Reading Research Quarterly*, 20, 233-253.
 Pickard, N. (1996). Out of class language learning strategies. *ELT Journal*, 50(2), 150-159.
 Pitts, M., White, H., & Krashen, S. (1989). Acquiring second language vocabulary through reading: A replication of the Clockwork Orange study using second language acquirers. *Reading in a Foreign Language*, 5(2), 271-275.
 Robb, T. N., & Susser, B. (1989). Extensive reading vs. skill building in an EFL context. *Reading in a Foreign Language*, 5(2), 239-251.
 Saragi, T., Nation, I. S. P., & Meister, G. F. (1978). Vocabulary learning and reading. *System*, 6(2), 72-78.
 Tsang, W. (1996). Comparing the effects of reading and writing on writing performance. *Applied Linguistics*, 17(2), 210-233.
 Tudor, I., & Hafiz, F. (1989). Extensive reading as a means of input to L2 learning. *Journal of Research in Reading*, 12(2), 164-178.
 West, M. (1953). *A general service list of English words*. London: Longman.
 Wodinsky, M., & Nation, P. (1988). Learning from graded readers. *Reading in a Foreign Language*, 5(1), 155-161.

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