

Learning from Graded Readers

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A word frequency study was made of two graded readers and an unsimplified text to determine the contribution that graded readers can make to vocabulary learning. Assuming that 10 repetitions are needed for learning, it was found that in order to master the vocabulary at a particular level, it would be necessary to read several texts at that level. It was also found that when moving from one level to another, it is not necessary to learn the vocabulary of the new level, or indeed to master all the vocabulary of the previous levels, in order to read successfully at the new level. Graded readers also provide suitable conditions for unknown words from context.

INTRODUCTION

Graded readers, books written within a limited vocabulary, are in common use in second and foreign language teaching. Series like the Longman Structural Readers use very clearly described vocabulary and structure lists to make sure that learners are not faced with too many items that are outside their command of the language. These books provide learners with a chance to read without encountering large quantities of unknown words, and thus learners are able to read successfully and get pleasure from their reading. That is, the books are designed to improve learners' skills. But is this all that they do? Their main purpose as exemplified in Michael West's *New Method Supplementary Readers* is to establish vocabulary that learners have already met elsewhere.

Their purpose was to confer greater facility in the use of the vocabulary already gained, to give the child a sense of achievement and a taste of the pleasure to be derived from his accomplishment . . . (West, 1955, p.45)

In order to fulfil this aim, graded readers would need to provide enough repetition of all or most of the words at a particular level to firmly establish them in the learners' memory and to enrich their meaning.

This study looks at this vocabulary learning role for graded readers. That is, do graded readers provide opportunities for vocabulary development? In order to answer this question, it was necessary to look at the effect of vocabulary control on the repetition of individual words in graded readers.

THE STUDY

Two simplified reading books were selected for this study. One was called *An*

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Indonesian Love Story (Meister and Nation, 1981) and was written at level four in the Longman Structural Readers Series. Level four consists of a vocabulary of 1,100 words. The other text was *The White Mountains* (Christopher, 1974) which was written at the same level in the same series.¹ In addition, an unsimplified text *You can't stop me so don't even try* (Schraff, 1980) which is a little longer than *The White Mountains* and written for teen-agers was chosen as a comparison. The books were typed on to a computer and a list of all the different words in each text and their frequency was made. The resulting lists were then worked on to sort the words into word families, so that closely related items were not counted as different words. For example, *button* and *buttons* were counted as occurrences of the same word family. *Big, bigger, biggest* were also considered to be occurrences of the same word, as were *correct, correctly; run, runs, ran, running; Joni, Joni's; and can, could*. In general, the groupings that West (1953) used in his *General Service List* were used here. This had the effect of reducing the number of words that occurred only once in the texts, but was necessary to match the ways in which the words are likely to be learned and stored.

RESULTS AND DISCUSSION

(1) Do graded readers provide at least one meeting with all the words available at the level at which they are written?

Table 1 contains information about the two graded texts used in the study. Figures for the combined texts were made by combining the word lists for *An Indonesian Love Story* and *The White Mountains*.

Table 1: Texts used in the study

TEXT	LEVEL	LENGTH OF THE TEXT	DIFFERENT WORDS
An Indonesian Love Story	4	9,702 words	670 word families (including 63 topic ² words)
The White Mountains	4	22,405 words	930 word families (including 72 topic words)
The combined texts	4	32,107 words	1,096 word families (including 134 topic words)

¹It should be kept in mind that these books may not be representative of all graded readers.

²Topic words are words not in the allowed levels of the list (in this case, levels 1 to 4), but which are needed for the story. Many of these words are names of people and places. Note that only one topic word (*blood*) occurs in both stories.

An Indonesian Love Story is the shorter of the two texts. As a result it makes use of fewer of the words available at that level, 607 out of the possible 1,100. *The White Mountains* is 86 pages long (including pictures) and with just over 250 words per page is 22,405 words long. It uses 858 of the available 1,100 words. Clearly, the longer the text, the greater the coverage of the permitted vocabulary. If learners read both texts, they would meet 962 of the 1,100 words available. By reading two or more books at level four, learners would meet almost all of the words available at that level.

(2) Do graded readers provide sufficient meetings with most of the available words to give opportunities for learning to occur?

Meeting the words does not mean that they will be learned. One factor which will help learning is repetition (Kachroo, 1962, Saragi et al, 1978). Table 2 shows the repetitions of the vocabulary in each of the texts, and shows how the requirement of writing within a limited vocabulary affects the repetition of vocabulary.

Table 2: Proportions of words at different frequency levels

FREQUENCY OF OCCURRENCE	NUMBER OF WORDS IN AN INDOONESIAN LOVE STORY	NUMBER OF WORDS IN THE WHITE MOUNTAINS	NUMBER OF WORDS IN THE COMBINED TEXTS
1	180 (26.9%)	104 (11.2%)	149 (13.6%)
2	82 (39.1%)	78 (19.6%)	86 (21.4%)
3	55 (47.3%)	78 (28.0%)	80 (28.7%)
4	52 (55.1%)	47 (33.0%)	61 (34.3%)
5	30 (59.6%)	42 (37.5%)	50 (38.9%)
6	23 (63.0%)	52 (43.1%)	45 (43.0%)
7	26 (66.9%)	44 (47.8%)	47 (47.3%)
8	18 (69.6%)	38 (51.9%)	43 (51.2%)
9	16 (71.9%)	36 (55.8%)	37 (54.5%)
10 or more times	188	411	498

An Indonesian Love Story, the shorter of the two texts, has the greater number of words occurring only once – over one-quarter of the 670 different words in the text. 71.9% of the words occurred 9 times or less. In contrast, only 11.2% of the different words in *The White Mountains* occurred once, with 55.8% occurring 9 times or less. The longer the text, the smaller the number and proportion of words with a low frequency of occurrence. In other words, the longer the text, the more likely most of the vocabulary will be repeated. However even in the combined texts a substantial proportion of the words occurred only once and many occurred less than 10 times.

So, over the allowed vocabulary as a whole, a large number of words in the graded readers are not repeated often enough to insure their being learned. However this is not the goal of graded readers. They are not intended to be used as beginning vocabulary learning texts, but assume at least knowledge of the vocabulary of the preceding levels.

(3) How many words do you need to know to read a graded reader and be able to cope with unknown words that appear in the text?

Several studies indicate that it is necessary to know around 95% of the vocabulary in a text in order to be able to guess unknown words from context (Lui Na and Nation, 1985), or to comprehend the text (Laufer, 1986).

Table 3 shows that knowledge of half (around 500 to 600 words) of the available 1,100 words is sufficient to give 95% coverage of the words in the text. 95% coverage means that on the average 1 unknown word occurs in every 20 known running words. So, it is possible to read simplified texts for enjoyment without having mastered all the words allowed at that level. The coverage of vocabulary is such that learners not knowing all the words would be able to make reasonable guesses of the unknown words and still comprehend the text well.

Table 3: Vocabulary size and vocabulary coverage

NUMBER OF DIFFERENT WORDS	% COVERAGE OF AN INDOONESIAN LOVE STORY	% COVERAGE OF THE WHITE MOUNTAINS
10	27.55	26.80
20	40.00	38.53
50	56.57	54.63
75	64.67	58.38
100	70.81	65.27
200	83.97	76.68
300	90.83	84.11
400	94.76	89.27
500	97.05	92.90
600	98.16	95.53
700		97.22
800		98.72
900		99.68

(4) Can learners move from one graded reader vocabulary level to another and expect to be able to learn and cope with the vocabulary of the new level without previously studying it?

(a) *An Indonesian Love Story* makes use of 67 (19%) of the 350 words available at level four. *The White Mountains* makes use of 181 (52%) of the words at level four. The combined texts make use of 199 (57%) of the words at level four. Clearly learners would need to read many more than two texts in order to meet most of the words at level four.

(b) As Table 4 shows, if 10 repetitions are needed for learning, most of the words from level four which occur in the texts (*Indonesian Love Story* 89.6%, *The White Mountains* 70.8%, combined texts 71.8%) are not likely to be learned.

Table 4: Repetitions of level four words

	INDONESIAN LOVE STORY	THE WHITE MOUNTAINS	COMBINED TEXTS
1	29 (43.3%)	28 (15.5%)	33 (15.5%)
2	14 (64.2%)	23 (28.2%)	28 (30.7%)
3	5 (71.7%)	21 (39.8%)	24 (42.8%)
4	4 (77.6%)	11 (45.9%)	12 (48.8%)
5	4 (83.6%)	13 (53.1%)	13 (55.3%)
6	1 (85.1%)	13 (60.3%)	13 (61.8%)
7	2 (88.1%)	8 (64.7%)	5 (64.3%)
8	0 (88.1%)	6 (68.0%)	7 (67.8%)
9	1 (89.6%)	5 (70.8%)	8 (71.8%)
10+	7 (100.0%)	53 (100.0%)	56 (100.0%)

(c) The words not at level four in *An Indonesian Love Story* account for 96.5% of the running words in the text, in *The White Mountains* for 93.1% of the running words in the text. Knowing the ten words from level four which occur most frequently in *The White Mountains* would give 95% coverage of the text. Thus, little or no learning of level four vocabulary would be needed before moving on from level three readers to level four readers. This can be seen more clearly if we look at a typical part of a page of *The White Mountains* which has the words at level 4 blacked out.

They were travelling fast. Their legs did not move; but each foot xxxx a wave as high as a house.

The first Tripod was only thirty xxxx away when it suddenly xxxx to the left. It xxxx just behind us, and the others followed. They made a xxxx noise, like a dozen different winds. Then the first wave hit our ship, and she xxxx half over. We both fell, and I xxxx my head against the table.

The blacked out words do not interfere greatly with the story. Most could be easily guessed from context clues. The blacked out words are *caused*, *yards*, *turned*, *passed*, *terrible*, *rolled*, and *knocked*.

(5) How much better are the conditions for vocabulary learning in a graded reader compared with an unsimplified text?

(a) The number of different words needed to read *You can't stop me . . .* is 1,859 compared with 930 needed to read *The White Mountains* and 1,096 needed to read both of the graded readers. Graded readers obviously allow learners to do large quantities of reading within a limited vocabulary. Unsimplified texts have a much larger vocabulary load.

(b) 42.4% of the words in *You can't stop me . . .* occur only once (*Indonesian Love Story* 26.9%, *The White Mountains* 11.2%). 84.8% of the words occur nine times or less (*Indonesian Love Story* 71.9%, *The White Mountains* 55.8%). An unsimplified

text does not provide very favourable repetition for vocabulary learning.

(c) 900 words give 95.4% coverage of the running words in the text. This compares with just over 400 for *An Indonesian Love Story*, and 600 for *The White Mountains*. Predictably a much larger vocabulary is needed to read an unsimplified text.

This study of an unsimplified text has not provided any surprising conclusions. What it does serve to do is to highlight the favourable conditions provided by graded readers.

CONCLUSIONS

Graded readers provide much more favourable conditions for reading and vocabulary learning than unsimplified texts do.

However, in order to meet the vocabulary used in graded readers enough times to ensure learning, it would be necessary to read several readers written at the same level. The longer the readers, the more favourable the repetitions.

Once learners have mastered most of the vocabulary at one level, they do not need a vocabulary learning programme to prepare them for reading at the next level. Their mastery of the words at one level will allow them to cope with the texts and vocabulary at the next level.

FUTURE RESEARCH

This study has looked at the possibility of learning and coping with vocabulary in graded readers. The next step is to test to see if such learning and coping actually occurs and what factors influence learning. Such research may need to include reaction time measures as well as comprehension measures to make sure that the vocabulary is not only known but is readily available for use.

The major factor looked at here is repetition. Other factors that may affect vocabulary learning include the range of contexts in which a word occurs, the range of meanings that are used with a particular word form, the saliency of the word in the story (Bromage and Mayer, 1986), the importance of the word for the learner, and whether the word occurs in a picture.

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