

The Effects of Reading Stories Aloud with Word Instruction on Vocabulary Learning

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Abstract

This study investigated the effects of reading stories aloud repeatedly with word instruction in L1 or L2 on EFL children's vocabulary learning. Four classes of fifth-grade children (in total 100 children) participated in the study. Two classes listened to four English stories with word instruction in Chinese (L1 Word Instruction Group), and the other two listened to the same four stories with word instruction in English (L2 Word Instruction Group). Based on their scores on the English final examination in the previous semester, the participants in each group were further divided into the higher proficiency and the lower proficiency subgroups. One week before the treatments, a receptive vocabulary pretest was administered. Then there were four learning sessions within the following four weeks, one session per week. In each session, each group listened to one story read aloud three times and received word instruction in L1 or L2 twice. At the end of each session, the participants took a productive vocabulary posttest and then a receptive vocabulary posttest. The results showed that L1 Word Instruction Group performed significantly better on the receptive vocabulary posttest than L2 Word Instruction Group. On the other hand, L2 Word Instruction Group significantly outperformed L1 Word Instruction Group on the productive vocabulary posttest. Moreover, whether L1 or L2 was used for word instruction, higher proficiency children performed better than lower proficiency children in both receptive and productive vocabulary learning. Finally, there was a significant interaction effect between students' proficiency levels and the languages used for word instruction in productive vocabulary learning. That is, though L2 word instruction was more effective than L1 word instruction in helping all the participants increase productive vocabulary, the higher proficiency children benefited more from L2 word instruction in productive vocabulary learning than the lower proficiency children. The findings of the study suggest that word instruction in L1 is more effective than word instruction in L2 in facilitating receptive vocabulary learning, while word instruction in L2 seems to make greater contribution to EFL children's productive vocabulary learning than word instruction in L1. Furthermore, higher proficiency children seem to benefit more from L2 word instruction than lower proficiency children in productive vocabulary learning.

Key Words: reading stories aloud, word instruction, vocabulary learning

INTRODUCTION

Vocabulary is one of the fundamental elements for mastering a language. Prior research has indicated that vocabulary knowledge is highly correlated with children's reading ability (Grabe, 1991; Scarborough, 2005), reading comprehension (Chall & Jacobs, 1983; Davis, 1968), verbal intelligence (Anderson & Freebody, 1981;

Sternberg & Powell, 1983) and even overall academic achievement at school (Dickson, 2001; Wells, 1986). As the importance of vocabulary knowledge has been recognized, various approaches have been used to facilitate vocabulary learning. Vocabulary knowledge can be enhanced by teachers' direct word instruction (Beck, Perfetti, & McKeown, 1982; White, Graves, & Slater, 1990), by classroom discussions (Stahl & Fairbanks, 1986) or by incidental exposure to written or oral context (Eller, Papas, & Brown, 1988; Jenkins, Stein, & Wysocki, 1984). Among the teaching approaches and techniques, listening to stories has been recommended as one of the effective activities for developing learners' language skills and vocabulary knowledge.

Many empirical studies have been conducted to investigate the effects of listening to stories on learners' vocabulary acquisition (Blok, 1999; Karweit & Wasik, 1996; Nicholson & Whyte, 1992; Stahl, Richek, & Vandevier, 1991). Although these studies vary in terms of participants' background, the times of story reading, the number of target words and the types of measurements, their findings all suggest that children can acquire novel words from listening to stories.

However, it has been revealed that some variables influence vocabulary acquisition during the process of listening to stories. For example, some research suggested that the frequency of exposure to unfamiliar words could be positively associated with the size of children's vocabulary acquisition. The findings of Robbins and Ehri (1994) revealed that novel words that occurred twice in a storybook were more likely to be acquired than those words that only appeared once. Similarly, Biemiller and Boote (2006) indicated that children gained more vocabulary when they listened to a story four times than when they listened to a story two times.

Moreover, Robbins and Ehri (1994) found that children with larger vocabulary knowledge made greater word gains from listening to stories than children with smaller vocabulary knowledge. The study of Sénéchal, Thomas and Monker (1995) also revealed that children with larger vocabularies could comprehend and produce more target words than children with smaller vocabularies. The results of these studies implied that children's initial proficiency levels were correlated with the amount of vocabulary acquisition from listening to stories.

In addition to the frequency of exposure and a learner's initial proficiency level, word instruction on novel words has been identified as another key variable to affect children's vocabulary acquisition from listening to stories. Elley (1989) and Penno et al. (2002) provided the empirical evidence that children who listened to stories with word explanations made greater word gains than those who listened to stories without word explanations. Furthermore, some research showed that when low proficiency students were provided with word explanations while listening to stories, they could

perform as well as high proficiency students who received the same word explanations, or they could even perform better than high proficiency students who were not provided with word explanations during the process of listening to stories (Collins, 2005; Coyne, Simmons, Kame'enui & Stoolmiller, 2004).

Although previous studies have indicated the beneficial effects of listening to stories with word instruction on children's vocabulary acquisition, most of the participants in the studies mentioned above are native English speakers or ESL learners, and they received word instruction in English. For EFL learners in Taiwan, they have limited exposure to English and fewer opportunities to listen to storybooks in English than native speakers. If the EFL learners in Taiwan get word instruction in English (L2), will they perform as well as native speakers or ESL learners in the previous studies? Or is it more appropriate for these EFL learners to get word instruction in their native language (L1)? So far, there is no research comparing the effect of L1 word instruction with that of L2 word instruction on children's vocabulary acquisition in the context of listening to stories. However, there has been controversy over whether or not learners' native language should be used to teach a target language.

Auerbach (1993) and Cummins (1984) claimed that the learner's native language had some benefits on target language learning, such as reducing affective filters, linking background knowledge and target language acquisition. Schweers (1999) reported that 88.7 percent of the students and teachers believed that teachers' explanations in L1 helped to enhance the learning of the target language. Moreover, Strohmeier and McGrail (1988) found that the students were able to improve their writing in L2 when they were provided with explanations in L1. Similarly, Ulanoff and Pucci (1999) found that explanations of novel vocabulary in L1 (Spanish) facilitated the learners' L2 (English) vocabulary acquisition.

On the other hand, other researchers argued for the importance of using the target language (TL) in L2 instruction. Lee and VanPatten (2003) emphasized that for students to gain in the target language proficiency, teachers need to use TL as much as possible during classroom instruction. Turnbull (1999) provided empirical evidence that there was a positive connection between teachers' use of TL and students' general TL proficiency. Similarly, Burstall, Jamieson, Cohen, and Hargreaves (1974) found that students who received instruction in TL got higher scores on tests of oral fluency in the TL than students who received instruction in L1. Furthermore, Wolf (1977) found that the frequency of using L1 in TL instruction had a negative impact on students' test scores of reading and listening comprehension in the TL.

Therefore, this study was proposed to investigate the effects of repeatedly listening to stories with word instruction in L1 or L2 on Taiwanese EFL children's

vocabulary learning. The learning effects were examined in terms of gains in both receptive and productive vocabulary knowledge (i.e., learning of word meaning and oral production of the target word). There were three research purposes. First of all, the researchers attempted to investigate whether there were differences in receptive vocabulary learning between children receiving word instruction in L1 and children receiving word instruction in L2 while listening to stories. The second purpose was to examine whether children receiving word instruction in L1 would perform differently from children receiving word instruction in L2 on the productive vocabulary test. Lastly, the study was conducted to clarify how children with different English proficiency levels would react to the word instruction in L1 and L2.

METHOD

Participants

Approximately 100 EFL children were selected from four fifth-grade classes in the same elementary school in Taipei County. These four classes were selected based on their English teacher's recommendation. According to the English teacher, these four classes were nearly equivalent in terms of their English proficiency. They have received English formal instruction in school for two years. To examine the effects of languages used for word instruction, two classes were randomly assigned to L1 Word Instruction Group ($n = 50$), and the other two classes were assigned to L2 Word Instruction Group ($n = 50$). However, both groups were taught by the same instructor, i.e., one of the researchers conducting this study. L1 Word Instruction Group received word instruction in Chinese, while L2 Word Instruction Group received word instruction in English. Children in each group were further divided into a higher proficiency subgroup and a lower proficiency subgroup based on the mean score of the English final examination in the preceding semester. The mean score calculated for the four classes was 80.25. If children's scores on the final English examination were higher than the mean score, they were categorized into the higher proficiency subgroups; on the other hand, if children's scores were lower than the mean score, they were categorized into the lower proficiency subgroups. Table 1 shows the number of children in each word instruction group and each proficiency subgroup.

Table 1 *The Number of Participants in Each Group and Subgroup*

Group	Subgroup	<i>n</i>
L1 Word Instruction	Higher Proficiency Level	27
	Lower Proficiency Level	23
	Total	50
L2 Word Instruction	Higher Proficiency Level	30
	Lower Proficiency Level	20
	Total	50
Total		100

Selection of the Storybooks

Three criteria were used to choose appropriate storybooks for participants in this study. First of all, the books needed to contain colorful illustrations that would appeal to children. Secondly, based on the teaching experience of the researchers, the text would not be difficult for fifth-grade students to comprehend. Thirdly, the instructor of this teaching experiment had to enjoy the book herself so that she could read aloud the stories to children enthusiastically. Based on the selection criteria, four picture books were selected: *If You Give a Pig a Pancake* by Laura Numeroff (2002), *Joseph Had a Little Overcoat* by Simms Taback (1999), *There was an Alligator under My Bed* by Mercer Mayer (1987), and *Where the Wild Things are* by Maurice Sendak (1993). Then, before the study was conducted, these four storybooks were pilot tested with six fifth-graders who did not participate in this study. They responded that these books were interesting and were not difficult to comprehend.

Selection of Target Words

Five words from each of the four picture books were selected as the target words in this study. A total of twenty target words were selected (see Table 2). All these target words were required to meet the following criteria. First, all of these 20 target words are content words, including nouns, verbs, and adjectives. Second, they were unfamiliar and unknown to the participants in this study. After the researchers of the study selected 20 target words from the four stories, these 20 words were tested with 30 fifth-grade students who were not participants in this study. In this pilot test, the students were asked to write the meaning of each target word in Chinese. The results showed that none of these 20 words could be recognized by these children.

Table 2 *The Target Words of Each Picture Book*

<i>Titles of Books</i>	<i>Target Words</i>
If You Give a Pig a Pancake	closet, decorate, nail, suitcase, syrup
Joseph Had a Little Overcoat	button, chorus, fasten, overcoat, worn
There's an Alligator under My Bed	bait, crawl, garage, mess, slam
Where the Wild Things are	claw, frightened, roar, sail, supper

Research Procedure

An experimental design was used to assess the effects of reading stories aloud with word instruction in L1 or L2 on elementary school children's vocabulary learning. This experiment lasted for around five weeks. One week before the experiment, a multiple-choice vocabulary test was administered to all the participants to assess their receptive vocabulary knowledge of target words. Four stories were read aloud with word instruction during the following four weeks. In each week, it took about thirty minutes for each group to listen to one story three times and receive word instruction twice. At the end of each story reading session, the participants took the productive vocabulary posttest and then the receptive vocabulary posttest. Furthermore, since the researchers were interested in finding out whether the treatments would affect students' comprehension of the stories as well as vocabulary learning, the students were asked to answer some comprehension questions after taking the receptive vocabulary posttest.

Two different treatments were implemented in the study. Though both groups listened to the same four stories, children in L1 Word Instruction Group listened to each story three times with word instruction in Chinese (L1) twice. On the other hand, children in L2 Word Instruction Group listened to each story three times with word instruction in English (L2) twice. At the first time of story reading, the instructor merely read aloud the story and showed the illustrations in the book to children. At the second and the third time of story reading, the instructor not only read aloud the story to children but also elaborated on the meanings of target words.

In the group of receiving word instruction in L1, each target word was explained by providing (1) a Chinese translation (e.g. crawl: 爬; 身體貼在地上緩慢移動), (2) a short statement containing the target word (e.g. 嬰兒在地上 crawl), (3) body gestures and (4) a matched illustration. By contrast, in the group of receiving word instruction in L2, each target word was explained in English by (1) using an understandable definition (e.g. crawl: to move slowly with the body near the ground), (2) a short statement containing the target word (e.g. The baby crawls on the floor.), (3) body gestures and (4) a matched illustration. Immediately after the third time of story reading, a productive vocabulary posttest and a receptive vocabulary posttest on the

five target words in the story were administered to assess whether children learn vocabulary differently from receiving different treatments. Figure 1 shows the research procedure.

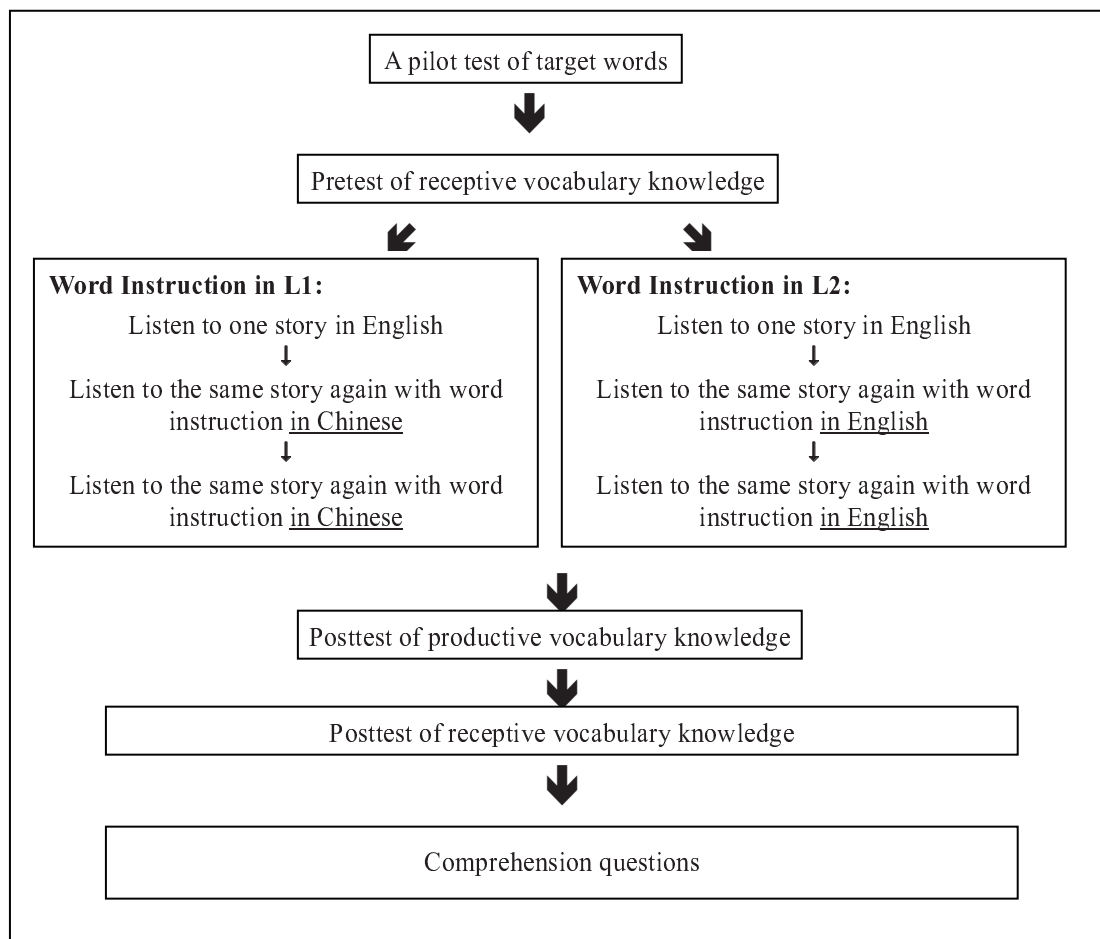


Figure 1. The flow chart of the research procedure.

Vocabulary Pretest and Posttests

Receptive vocabulary pretest. A multiple-choice test was used to assess the participants' receptive vocabulary knowledge of the target words before the treatments. In this receptive vocabulary test, there were totally 28 items; 20 items were the target words and 8 additional words (i.e., bed, boy, cat, candy, eye, ice cream, pig and shoe), which children had been familiar with. These 8 extra words were included in the test to build their confidence to finish the tests. To make sure every participant understood how to complete the test, the instructor used an example item printed in the beginning of the test to explain the testing procedure. In each item, an underlined word was presented, and each child would be required to choose the appropriate meaning of each underlined word from four illustrations. As to the other

three foil options, they are words categorically related, thematically related or phonological related to the target word. Take the target word “chorus” as an example; “orchestra” is categorically related, “piano” is thematically related, and “coach” is phonological related to it (See Appendix A for some sample items on the receptive vocabulary pretest). The total score of the receptive vocabulary pretest was 20 for the 20 target words without including the 8 additional words.

Productive vocabulary posttest. No productive vocabulary pretest was conducted because the pilot test had shown that none of these target words were known by the fifth-grade children and thus it was unlikely that they would be able to produce these words. The productive vocabulary posttest was administered before the receptive vocabulary posttest to avoid the situation in which the participants might enhance their memory of some target words during the process of taking the receptive vocabulary test. Thus, after listening to each story, the participants were required to recall the target words on the productive vocabulary posttest first. During the productive vocabulary test, the instructor showed each child the pictures of target words and asked the child questions related to the pictures (See Appendix B for some sample items on the productive vocabulary test). These pictures were the same as the illustrations used in the receptive vocabulary posttest. For example, the instructor pointed to the referent picture and asked the children in both English and Chinese (e.g., “What is the baby doing?” “這個嬰兒在做什麼?”) to ensure their understanding of each question. The children needed to provide an answer with either a sentence “The baby is crawling.” or the target word “crawl.” Children’s responses were scored as follows: “know” (score: 2), “possibly know” (score: 1), or “not know” (score: 0). If children answered the target word correctly, they were regarded as “know”. If children answered the question after the instructor provided extra cues in Chinese, such as “C 開頭的單字形容這個嬰兒的動作” they were regarded as “possibly know” (score: 1). If children were unable to answer the question, they were regarded as “not know” (score: 0). Thus, the maximum score of the productive vocabulary posttest was 40 as there were 20 questions related to the 20 target words. Besides, during the productive vocabulary posttest, no corrective feedback was given to disturb children’s responses, but all the children received praise so that they would feel encouraged to complete the test.

Receptive vocabulary posttest. After the productive vocabulary posttest, the same 28 items on the receptive vocabulary pretest were used again to evaluate children’s receptive vocabulary knowledge. In the receptive vocabulary posttest, the format and the foil options were the same as the receptive vocabulary pretest, but the order of these items was different from that of the pretest. In addition, to prevent the participants from memorizing the pictures used in word instruction rather than the

meanings or the pronunciations of the target words, the corresponding illustration of each target word used in this test and the pretest was different from the illustration used for word instruction. Like the pretest, each item on each target word was worth one point, so the total score of the receptive vocabulary posttest was 20.

Story comprehension questions. To know whether using different languages for word instruction would affect students' comprehension of stories, some comprehension questions were administered following the receptive vocabulary posttest. There were three story comprehension questions for each storybook (See Appendix C for some sample comprehension questions). Each question has one point, so the total score of the comprehension questions was 12.

Data Analysis

This study was intended to investigate the following questions: (1) Will children receiving word instruction in L1 perform differently from children receiving word instruction in L2 on the receptive vocabulary posttest? (2) Will children receiving word instruction in L1 perform differently from children receiving word instruction in L2 on the productive vocabulary posttest? (3) Will children with different proficiency levels benefit differentially from their treatments in terms of their receptive and productive vocabulary learning? To answer these three questions, a two-way ANOVA was conducted twice. At the first time, children's scores on the receptive vocabulary posttest served as the dependent variable. The main effect of languages used for word instruction, the main effect of proficiency levels, and the possible interaction effect between these two independent variables on the receptive vocabulary posttest scores were examined. At the second time, children's productive vocabulary posttest scores served as the dependent variable. The main effect of languages used for word instruction, the main effect of proficiency levels, and the possible interaction effect between these two independent variables on the productive vocabulary posttest scores were examined. The results of these two analyses can reveal whether providing word instruction in L1 or L2 was more effective in helping children gain receptive and productive vocabulary, whether children's proficiency levels influenced their word gains, and whether children with different proficiency levels benefited differentially from different treatments while listening to stories.

RESULTS

The Participants' Performance on the Receptive Vocabulary Pretest

The receptive vocabulary pretest was administered to assess the participants' prior knowledge of the 20 target words before the treatments. An independent samples t-test was conducted to determine whether the two treatment groups were significantly different before the experiment in terms of their prior knowledge of the target words. The results showed that there was no significant difference between these two groups ($t=1.225, p > .05$). In addition, the mean scores of both groups were very low, which indicates that the participants in either group had very limited knowledge about the 20 target words prior to the study.

Table 3 *The Results of the Independent Samples T-test on the Vocabulary Pretest Scores*

	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>t-value</i>
L1 Word Instruction Group	50	1.40	0.548	1.225
L2 Word Instruction Group	50	1.00	0.000	
Total	100	1.20	0.327	

The Participants' Performance on the Receptive Vocabulary Posttest

A two-way ANOVA was conducted to compare the performance of the children from the two groups on the receptive vocabulary posttest. Table 4 shows the two-way ANOVA results on the participants' receptive vocabulary posttest scores. The results showed that children receiving word instruction in L1 performed significantly better than children receiving word instruction in L2 on the receptive vocabulary test ($F(1, 96) = 46.034, p < .001$).

Table 4 *The Results of the two-way ANOVA on the Receptive Vocabulary Posttest Scores*

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Languages Used for Word Instruction (A)	85.929	1	85.929	46.034***
Initial Proficiency Level (B)	39.847	1	39.847	21.347***
A×B	.472	1	.472	.253
Error	179.198	96	1.867	

*** $p < .001$

Moreover, the results of two-way ANOVA showed that the main effect of proficiency levels was also significant ($F(1, 96) = 21.347, p < .001$). In other words,

regardless of what language was used for word instruction, the two higher proficiency subgroups performed significantly better on the receptive vocabulary posttest than the two lower proficiency subgroups. Table 5 displays the mean scores of the four subgroups on the receptive vocabulary posttest.

Table 5 *Subgroup Means of the Receptive Vocabulary Posttest Scores*

Group	Subgroup	<i>N</i>	<i>Mean</i>	<i>SD</i>
Word Instruction in L1	Higher Proficiency Level	27	19.70	.724
	Lower Proficiency Level	23	18.57	1.343
	Total	50	19.18	1.190
Word Instruction in L2	Higher Proficiency Level	30	17.97	1.351
	Lower Proficiency Level	20	16.55	1.959
	Total	50	17.40	1.750
	Higher Proficiency Level	57	18.79	1.389
	Lower Proficiency Level	43	17.63	1.928
	Total	100	18.29	1.737

However, the interaction effect between proficiency levels and languages used for word instruction was not significant on the receptive vocabulary posttest ($F(1, 96) = 0.253, p > .05$).

Participants' Performance on the Productive Vocabulary Posttest

Another two-way ANOVA was conducted to analyze the participants' scores on the productive vocabulary posttest. Table 6 shows the two-way ANOVA results on the productive vocabulary posttest scores. First of all, the results revealed that the main effect of languages used for word instruction was significant ($F(1, 96) = 47.387, p < .001$). That is, children in L2 Word Instruction Group performed significantly better on the productive vocabulary test than children in L1 Word Instruction Group.

Table 6 *The Results of the Two-way ANOVA on the Productive Vocabulary Test Scores*

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Languages Used for Word Instruction (A)	1073.746	1	1073.746	47.387***
Initial Proficiency Level (B)	2277.098	1	2277.098	100.494***
A×B	188.054	1	188.054	8.299***
Error	2175.275	96	22.659	

*** $p < .001$

Secondly, the main effect of proficiency levels was significant ($F(1, 96) = 100.494, p < .001$). The results of the two-way ANOVA indicated that children with

higher proficiency performed significantly better on the productive vocabulary posttest than children with lower proficiency. Table 7 shows the mean scores of four subgroups on the productive vocabulary test. The scores show that the higher proficiency children in both groups scored higher on the productive vocabulary test than the lower proficiency children.

Table 7 *Subgroup Means of the Productive Vocabulary Test Scores*

Group	Subgroup	<i>n</i>	<i>Mean</i>	<i>SD</i>
Word Instruction in L1	Higher Proficiency Level	27	12.93	5.519
	Lower Proficiency Level	23	6.04	4.172
	Total	50	9.76	5.999
Word Instruction in L2	Higher Proficiency Level	30	22.33	4.866
	Lower Proficiency Level	20	9.90	4.064
	Total	50	17.36	7.634
	Higher Proficiency Level	57	17.88	6.990
	Lower Proficiency Level	43	7.84	4.514
	Total	100	13.56	7.826

Third, the interaction effect between the proficiency level and the languages for word instruction was significant ($F(1, 96) = 8.299, p < .001$). As shown in Figure 2, regardless of the languages used for word instruction, the higher proficiency children could produce more target words than the lower proficiency children. That is, the initial proficiency level had an influential role in productive vocabulary learning. In addition, the word instruction in L2 seemed to be more effective than the word instruction in L1 in increasing children's productive vocabulary. Finally, there was a significant interaction effect between the participants' proficiency levels and the languages used for word instruction in productive vocabulary learning. Though both higher proficiency children and lower proficiency children benefited more from the word instruction in L2 than the word instruction in L1 in productive vocabulary learning, the higher proficiency children seemed to benefit more from the word instruction in L2 than the lower proficiency children.

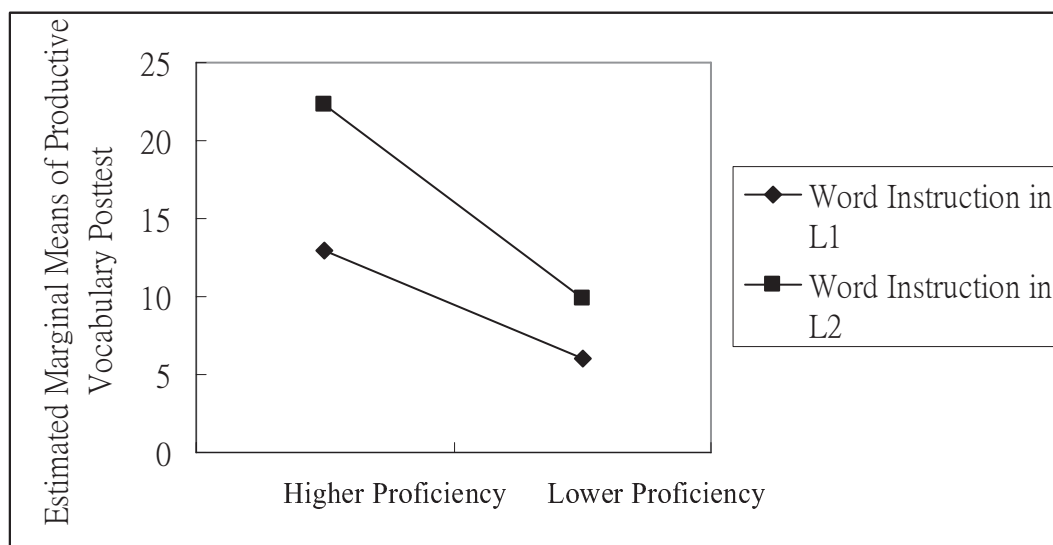


Figure 2. The higher proficiency children's and the lower proficiency children's performances on the productive vocabulary test.

The Effect of Languages Used for Word Instruction on Story Comprehension

In order to know how well children understand stories after listening to stories with word instruction in L1 or L2, their scores on the reading comprehension questions were analyzed as the dependent variable for an independent samples t-test (see Table 8). The results showed that there was no significant difference between these two groups ($t=1.667, p > .05$). That is, although L1 instruction group performed differently from L2 instruction group in receptive and productive vocabulary learning, the languages used for word instruction had no differential effects on story comprehension.

Table 8 *The Results of the Independent Samples T-test on the Comprehension Scores*

	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>t-value</i>
L1 Word Instruction Group	50	9.64	2.097	
L2 Word Instruction Group	50	8.92	2.221	1.667
Total	100	9.28	2.159	

DISCUSSION

The present study generated three main findings. First, children receiving word instruction in L1 performed significantly better than children receiving word instruction in L2 on the receptive vocabulary posttest. Second, children receiving

word instruction in L2 performed significantly better than children receiving word instruction in L1 on the productive vocabulary posttest. Third, children's initial proficiency levels affected their receptive and productive vocabulary learning from listening to stories. In both receptive and productive vocabulary learning, the higher proficiency children performed significantly better than the lower proficiency children. In addition, there was a significant interaction effect between students' proficiency levels and the languages used for word instruction in productive vocabulary learning.

The first finding of the present study suggests that word instruction in L1 is more effective than word instruction in L2 for children to learn receptive vocabulary from listening to stories. To gain receptive vocabulary, the participants had to recognize the meaning of each target word. When they received word instruction in L1, it was easier for them to understand the word meanings and memorize the connection between word meanings and target words in the L1 context than the L2 context. That is, word instruction in L1 is more helpful for EFL children to increase receptive vocabulary than word instruction in L2. This finding is also in accordance with the study of Ulanoff and Pucci (1999), who found that elaborations of target words in L1 contributed to receptive vocabulary learning. Similarly, Piasecka (1988) and Auerbach (1993) suggested that L1 had its important role in teaching L2 vocabulary.

The second finding of the study indicates that word instruction in L2 is more facilitative than word instruction in L1 in productive vocabulary learning. Children who received word instruction in L2 could produce more target words than those who received word instruction in L1. One possible reason may be that children receiving word instruction in L2 had to pay attention to the teacher's pronunciation of each word, including the target words, to get the word meanings. To gain productive vocabulary, the participants had to know how to pronounce each target word. Since children receiving word instruction in L2 tended to pay more their attention to word pronunciation than children receiving word instruction in L1, they were better able to connect the pronunciation of each target word with the illustration of target word. As some researchers (Trappes-Lomax & Ferguson, 2002; VanPatten, 2003) suggest, learners can benefit from frequent contact with the target language when the target language is used for instruction. That is, the more L2 input learners can take in, the more opportunities they have to acquire the second language. This finding also echoes their statement that using L2 in word instruction may promote productive vocabulary learning.

The third finding of the present study indicates that on both the receptive and the productive vocabulary test, higher proficiency children performed significantly better than lower proficiency children. This is parallel to the findings of previous studies (Collins, 2005; Ewers & Brownson, 1999; Robbins & Ehri, 1994; Tekmen & Daloğlu,

2006) that children with higher proficiency made greater gains than children with lower proficiency. Sternberg and Powell (1983) suggest that the difference between high proficiency children and low proficiency children in vocabulary learning is due to their literacy skills. Higher proficiency children are more skilled at using contextual cues and getting in new information, so they are better at learning new vocabulary items and retaining them in memory than lower proficiency children. Moreover, learning motivation may be another factor to explain the learning difference between higher and lower proficiency children. According to Robbins and Ehri (1994), higher proficiency children are more motivated and interested in learning new vocabulary than lower proficiency children. Or perhaps higher proficiency children have more experiences in listening to stories than lower proficiency children. Thus, the higher proficiency children in this study could attend to not only the story plot but also the target word instruction.

Furthermore, the significant interaction effect between the languages used for word instruction and different proficiency levels on word learning indicated that word instruction in L2 during repeated story reading seemed to contribute to productive vocabulary learning more for children with higher proficiency levels than those with lower proficiency levels (see Figure 2). This could be due to the fact that higher proficiency children had richer vocabulary knowledge and literacy skills than lower proficiency children. Therefore, it was easier for them to follow the word instruction in L2 and to imitate the teacher's pronunciation of the target words than lower proficiency children. Thus, in terms of productive vocabulary learning, higher proficiency children benefited more from the word instruction in L2 than lower proficiency children.

CONCLUSION AND IMPLICATIONS

The major findings relevant to each research question are summarized as follows: First of all, during the process of listening to stories, children who received word instruction in L1 (Chinese) significantly gained more receptive vocabulary than children who received word instruction in L2 (English). Secondly, children receiving word instruction in L2 significantly produced more target vocabulary than the children receiving word instruction in L1. Third, children's initial proficiency levels played an influential role in their vocabulary learning when they listened to stories with word instruction. Whether receiving word instruction in L1 or L2, the higher proficiency children performed better on both the receptive vocabulary posttest and the productive vocabulary test than the lower proficiency children. Furthermore,

though both the higher and the lower proficiency students benefited more from the word instruction in L2 than L1 in productive vocabulary learning, the beneficial effect of L2 word instruction seemed to be greater for the higher proficiency students. To sum up, word instruction in L1 was more effective in enhancing EFL children's receptive vocabulary, while L2 was more beneficial for their productive vocabulary learning. Moreover, higher proficiency children profited more than lower proficiency children from word instruction in both L1 and L2.

Pedagogical Implications

First of all, the results revealed that word instruction in L1 is more effective than word instruction in L2 in facilitating receptive vocabulary learning. Because word instruction in L1 can efficiently help students to clearly understand the meanings of novel words, children can easily gain receptive vocabulary. Thus, if the instructional objective is to increase children's receptive vocabulary, teachers may explain the word meanings in L1 when instructing new vocabulary during story reading.

Secondly, word instruction in L2 seems to make greater contribution to EFL children's productive vocabulary learning than word instruction in L1. When the teacher provides word instruction in L2, children have to carefully attend to the teacher's pronunciation of each word, including the target word, to understand the instruction. As a result, they are more able to remember the pronunciation of the target word. Therefore, if teachers intend to expand children's productive vocabulary knowledge, it is better to use L2 in word instruction so that students will be forced to pay attention to the pronunciation of new vocabulary.

Thirdly, multiple times of exposure to target words may be taken into consideration when providing word instruction in either L1 or L2. As children have more opportunities to get familiar with the pronunciation and meaning of each new word, their chances of learning each word may increase.

Finally, the evidence from previous studies as well as this study showed that whether using L1 or L2 in word instruction, higher proficiency children gained more vocabulary than lower proficiency children. While instructing new words, teachers should interact more with lower proficiency children to clarify their understanding or even provide some opportunities for them to read aloud these words in the story context.

Limitations of the Current Study and Suggestions for Future Studies

Although the study provides some significant findings about the effects of reading stories aloud with word instruction in L1 or L2 on vocabulary learning, there are some limitations in the study. First, the participants in this study were categorized

as either the higher proficiency level students or the lower proficiency students to examine the role the initial proficiency level played in vocabulary learning. This dichotomy prevented us from examining the performance of average students in vocabulary learning. Therefore, it is suggested that future research can classify participants into three proficiency levels. In addition, if children are categorized into three proficiency levels, the sample size in the present study may become too small to statistically analyze data. Therefore, for further studies, it may be more appropriate to have a larger sample size so that the participants can be evenly divided into three ability groups (high, middle, and low).

Moreover, it was a weakness of this study that delayed vocabulary posttests of target words were not conducted. The administration of delayed vocabulary posttests may not only assess children's long-term retention of target words but also ensure the reliability of vocabulary posttests. In future studies, delayed posttests of the receptive and productive vocabulary can be employed to detect whether children's performance on the delayed posttests will be different from their performance on the immediate posttests.

Furthermore, the results of this study did not show any significant difference between the two treatment groups in their story comprehension. However, this result might have resulted from the limited number and the nature of the comprehension questions used in the current study. There were only three comprehension questions for each story, and the questions tended to focus on the literal comprehension of the stories. Very few questions required inferential comprehension. Therefore, future studies may increase the number and the variety of comprehension question to discover more about the effect of different languages for word instruction on story comprehension.

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APPENDIX A

Sample Items on the Receptive Vocabulary Pretest/Posttest

Example: Circle the picture that shows an apple



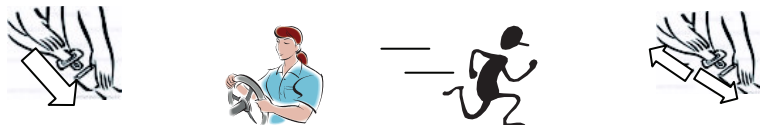
1. Circle the picture that shows a chorus



2. Circle the picture that shows a cat



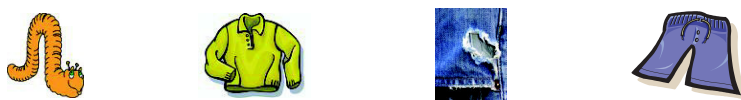
3. Circle the picture that shows to fasten



4. Circle the picture that shows an ice cream



5. Circle the picture that shows worn



6. Circle the picture that shows an overcoat











7. Circle the picture that shows a button



APPENDIX B

Sample Items on the Productive Vocabulary Posttest

 <p>What is the person doing?</p>	 <p>What is he doing?</p>	 <p>What is this?</p>	 <p>What is he doing?</p>
 <p>What is on the pancakes?</p>	 <p>What is someone doing to the door?</p>	 <p>How does he feel?</p>	 <p>What is it doing?</p>

APPENDIX C

Sample Comprehension Questions

Joseph Had a Little Overcoat

1. What did Joseph have at the beginning of the story?
 - 1) a little vest
 - 2) a little scarf
 - 3) a little overcoat
2. What happened to Joseph's button?
 - 1) It was broken.
 - 2) He lost it.
 - 3) He gave it to someone.
- 3) What did Joseph make at the end of the story?
 - 1) a book
 - 2) a handkerchief
 - 3) a necktie

There's an Alligator under My Bed

1. What's under the boy's bed?
 - 1) a cat
 - 2) a turtle
 - 3) an alligator
2. At the end of the story, where did the boy keep the animal he found under his bed?
 - 1) in the garage
 - 2) in the living room
 - 3) in the kitchen
3. What did the boy leave for his dad before he went to bed?
 - 1) a flower
 - 2) a note
 - 3) a flag

朗讀故事搭配字彙教學對國小學童 學習字彙之影響

摘要

本研究旨在探討重複朗讀故事搭配以中文或英文進行字彙教學對國小學童學習英語字彙之影響。本研究對象為某國小四班五年級的學童，共有一百位，隨機分配其中兩班為中文教學組，另兩班為英文教學組。兩組學童聽相同的四個英語故事，但在中文字彙組，研究者以中文進行字彙教學，在英文教學組則是用全英文進行字彙教學。並且，根據學童們上一學期期末考的英文成績，每一組又分為英文程度較高及英文程度較低兩小組。研究時間共為期五個星期，第一個星期學童接受認識字彙的前測，之後的四個星期進行朗讀故事搭配字彙教學。每一個星期，研究者朗讀一個故事三遍，並搭配以中文或英文進行字彙教學。每聽完一個故事，學童先接受應用字彙的測驗，再接受認識字彙的後測。結果發現中文教學組和英文教學組在學習字彙的表現有顯著的差異；中文教學組在認識字彙後測的表現優於英文教學組，而英文教學組在應用字彙後測的表現則優於中文教學組。另外，不論在中文教學組或英文教學組，原本英文程度較高的學童在認識字彙及應用字彙的學習上皆優於原本英文程度較低的學童。同時，在應用字彙的學習上，字彙教學所使用的語言與學童英文程度的高低有顯著的交互作用，也就是說，雖然對所有參與本研究的學童而言，以英文進行字彙教學比以中文進行字彙教學在應用字彙的學習上較有效益，但以全英文進行教學時，原本英文程度較高的學童受益大於英文程度較低的學童。上述的研究結果顯示，以中文進行字彙教學對於增進學童的認識字彙較有助益；另一方面，以英文提供字彙教學則對學習應用字彙較有顯著效果。此外，相較於原本英文程度較低的學童，以英文提供字彙教學，對原本英文程度較高的學童在應用字彙的學習上幫助較大。

關鍵詞： 朗讀故事 字彙教學 字彙學習

