I. Introduction

The greatest difficulty that Chinese students face when learning English as a foreign language (EFL) is that while reading English, there are too many new words.　It is worth while for English teachers to rethink this question － In EFL reading, aside from vocabulary knowledge, does a reader's cultural background knowledge play an important role in reading comprehension?　Previous studies point out that pre-reading activities do aid readers' comprehension abilities (Dole, Valencia, Greer, & Wardrop, 1991; Graves & Graves, 1994).　For some time now, EFL pre-reading activities have only been emphasized in vocabulary instruction. Furthermore, the learning environment for students learning English as a foreign language lacks cultural stimulation.　Chinese EFL teachers do not emphasize cultural instruction as much perhaps because they do not have enough foreign cultural background knowledge.　Empirical data on reading processing have been provided by vocabulary instruction (Harley, 1995; Nation, 1993; Hsieh, 2000, 2001) or by cultural background knowledge activation (Barnitz, 1986; Carrell, 1983), but there is very limited empirical research which supports or verifies hypotheses concerning both the readers' application of vocabulary and cultural knowledge when learning how to read English.

This study intends to provide answers to such important questions as to how EFL learners are affected by pre-reading vocabulary instruction and cultural knowledge activation while reading in English.　Furthermore, this study explores what the relationship is among learners' proficiency, length of English study, and their use of strategies in EFL reading.

II. Previous Studies

Reading strategies have been analyzed using the top-down or bottom-up model for quite some time.　The theory behind the bottom-up model is that it emphasizes the underlying importance of visual information, proposing that reading processes begin with word decoding.　By contrast, the top-down model emphasizes that comprehension is guided primarily by higher-level conceptual knowledge rather than lower-level word decoding.　Rather, a reader can predict

context meaning by his/her prior knowledge.   The interactive model combines both bottom-up and top-down models suggesting that reading consists of a series of interactions.   Each level communicates with those immediately above and below.

Research (Divesta, Hayward, & Orlando, 1979; Stroller & Grabe, 1993) indicates that younger and less proficient native language (L1) readers rely more on visual information in order to recognize words (bottom-up processing), which inevitably slows down reading and delays comprehension.   Skilled L1 readers use context to facilitate comprehension to a greater extent than less-skilled L1 readers do and to help determine the meaning of unfamiliar words (Sternberg & Powell, 1983).   In contrast, Perfetti, Goldman, and Hogaboam (1979) have shown that low-ability L1 readers do not have any difficulties using context. The low-ability L1 readers display more contextual effects than fluent readers, suggesting perhaps that processes at one level may compensate for a deficiency at another – what Stanovich and West (1979) call "compensatory – interactive processing."

One may ask: What will be the situation in second (L2)/foreign language (FL) reading as compared to L1 reading?   In order to answer this question, we should consider what the components of L2/FL literacy are.   Bernhardt (1991) defines three types of variables interacting in literacy activity: linguistic, literacy, and knowledge.   It is clear that language skills and background knowledge cannot be separated in language learning.   Due to the lack of language proficiency and background knowledge, L2/FL readers will have more difficulties in using top-down or bottom-up processing in reading as compared to L1 readers (Favreau et al., 1980).

Research on L1 and L2/FL reading instruction suggest that pre-reading activities are useful devices for bridging the gap between the text and the readers (Dole, Valencia, Greer, & Wardrop, 1991; Graves & Graves, 1994). Pre-reading activities prepare readers for the concepts that will follow, making the task easier, and make the experience more enjoyable.   Teachers can use pre-reading activities such as pictorial context, vocabulary instruction and

questioning to activate appropriate knowledge structure and facilitate students' comprehension.　Carrell (1984) suggests some pre-reading activities such as previewing the text, pre-teaching unfamiliar vocabulary, and providing questions for ESL students.　Kameenui et al. (1982) in two studies found that pre-reading vocabulary had a significant effect on comprehension.　Stahl (1983) also found that subjects' comprehension improved as a result of pre-teaching vocabulary. Langer (1981) introduced the idea of "key concepts," in connection with subject and specific texts.　These previous studies positively confirm the values of pre-reading activities, particularly in an ESL or EFL classroom.

　　Research (Allen, 1993; Huckin et al., 1993; Paribakht & Wesche, 1997; 黃自來, 2001; 謝良足, 1996) also shows that L2 and FL readers rely heavily on vocabulary knowledge and that the lack of this knowledge is an obstacle for these readers to overcome. Proficient readers typically have accurate and automatic recognition skills; this ability distinguishes a good reader from a poor one (Haenggie & Perfetti, 1994).　Comprehension deficits can be traced in part to deficiencies within the word recognition process. Some studies (Graves, 1987; Grabe & Stoller, 1997) have found that vocabulary instruction enhances comprehension of message containing the instructed words.　Karbon (1984) in his study offered evidence that the use of semantic mapping was an effective instrument that could provide opportunities for students to draw relationships between new and unfamiliar word parts or word meanings, at the same time positively influencing word acquisition.　Cohen (1990) also emphasized that explicit reference to word meanings through either association or definition is being recognized as a reliable way to gain partial knowledge of a word.　Carter (1987) and Carter and McCarthy (1988) suggested that lists and translations may be effective means of introducing new words.　Panky and Jenkins (1977) conducted a study to determine the effectiveness of word meaning techniques when teaching reading comprehension through increasing students' knowledge of word meanings.　Dependent measures were an isolated vocabulary test, vocabulary in context, and a story comprehension test.　The results of the study indicated that when words were taught and practiced with definition and usage

before reading, it was the most effective for all vocabulary instruction.

Many researchers in second language acquisition have studied the effects of content schemata on L2/FL reading comprehension (Carrell, 1984, 1987; Johnson, 1982; Ridgway, 1997; 開一心, 2001; 謝良足, 1996).   They found that background knowledge and awareness of a new culture are factors that can affect a student's reading comprehension in L2/FL.   Kintsch and Greene (1978) in their study had native American subjects read Boccaccio's *Decameron* and an *Apache* folktale and then had them recall the stories.   They found that readers wrote better summaries of stories for which they were familiar with.   Steffenson, Joag-dev, and Anderson (1979) studied two groups of subjects with different cultural heritage – a group of East Indians living in America, and a group of American subjects.   They found that both groups read the materials relating to their own cultural background quicker and easily recalled more of the culturally familiar text.   Adam (1982) and Floyd and Carrell (1987) have all shown that in various tasks students perform better when they are given pertinent prior information.   Johnson (1982) also found that familiarity with the topic significantly improved recall.   A causal relationship has been established between background knowledge and comprehension.   When a reader is reading about subjects that she/he is familiar with, comprehension is much better than when she/he is reading about unfamiliar subjects.

In reviewing the studies above, some strengths and weakness are evident. Researchers have found that knowledge of vocabulary and cultural background does increase reading abilities and comprehension.   However, the question remains whether background or vocabulary knowledge plays a more important role in EFL reading comprehension, while at the same time concerning readers' length of English study and proficiency. This study is designed to gain more understanding about vocabulary instruction and cultural background knowledge activation in EFL reading.   The following research questions have been developed in order to address these goals:

1. Do Chinese junior college EFL students' different lengths of English study affect their learning from pre-reading vocabulary instruction or cultural

background knowledge activation on English vocabulary acquisition and reading comprehension?

2. Does pre-reading vocabulary instruction have influence on Chinese junior college EFL students' vocabulary acquisition or reading comprehension?

3. Does pre-reading cultural background knowledge activation have influence on Chinese junior college EFL students' vocabulary acquisition or reading comprehension?

4. Does Chinese junior college EFL students' vocabulary knowledge correlate with their reading comprehension?

III. Methodology

A. *Subjects*

Subjects for this study were 184 female and 15 male second-year students from a five-year junior college.　Their average age was 16.55 years old, and had studied English for an average of 4.26 years. There were also 180 female and 9 male fourth-year students chosen for this study.　Their average age was 18.35 years old, and had studied English for an average of 6.23 years. All subjects were native speakers of Mandarin Chinese.　Subjects from each year-level were randomly assigned to four groups, and each group was assigned to one treatment. The first group received both vocabulary instruction and cultural background knowledge activation; the second concentrated on cultural background knowledge activation; the third worked on vocabulary instruction, and the fourth received none of these. The second-year students' English proficiency was rated intermediate low, and the fourth-year students, intermediate high.

B. *Materials*

An English pre-test was conducted to test subjects' English proficiency. It contained the items of grammar, cloze test, translation and sentence making. Five different materials were then prepared for the experimental study: English reading texts, music tapes containing heavy metal and rap songs, pictures about rodeo events, vocabulary tests, and reading comprehension tests. There were two English reading texts; one discussed the heavy metal and rap songs, and the other, rodeo events.　The texts were adapted from <u>Language Through Culture, Book 4</u>

edited by Marvin M. K. Li, and Chris Warner. The reason for having two reading texts was to counter the cultural bias and to have a higher text reliability. Vocabulary lists containing the vocabulary from each reading text with English definition and explanation presented as stimuli for pre-reading vocabulary activation. The two music tapes which recorded the heavy metal and rap songs, and pictures about rodeo events were presented as stimuli for pre-reading cultural background knowledge activation. The vocabulary tests and reading comprehension tests were multiple-choice tasks.

C. Procedure

Before conducting the experiment, subjects took an English pre-test and test results were analyzed and compared by the statistic program. This was done to determine whether subjects from the same or different year-levels had different English proficiency. The subjects then took the reading tasks. There were two reading tasks in the test kits. Each task contained the English reading text, vocabulary and comprehension tests. The subjects who received the pre-reading vocabulary instruction, were offered a vocabulary list along with the reading text. The teacher showed students how to pronounce the word and define its meaning by English definition or sentence examples. The subjects who received the pre-reading cultural background knowledge activation, listened to the heavy metal and rap songs or were shown rodeo pictures. The researcher introduced students to the characteristics and special features of "heavy metal" and "rap" music, and also explained rodeo events and their special activities. For the group receiving both the vocabulary instruction and cultural background knowledge activation, the researcher introduced subjects to the cultural background information while integrating the new vocabulary into the content information. The control group did not receive any pre-reading activities. The teaching time allotted for vocabulary instruction or cultural background knowledge introduction was 10 minutes per text. Each reading task took 35 minutes, the whole procedure lasting 70 minutes. In order to balance the test situation, each group had equal time for completing the tasks in both the experimental as well as in the control group.

D. Analysis

The statistical methods used in this study to present subjects' performance on vocabulary or comprehension test were three-way analysis of variance (ANOVA) , two-way ANOVA, one-way ANOVA, and follow-up t-tests. The statistic program was SPSS/PC and the significance level was set at $P=0.05$.

IV. Results and Discussion

A. Performance on English Pre-Test

Table 1: Descriptive Statistics for Performance of English Pre-Test
by Chinese Junior College EFL Students

Groups	Second-Year Students		Fourth-Year Students	
	Mean	SD	Mean	SD
Group 1	50.76	18.36 (N=50)	72.10	8.35 (N=48)
Group 2	54.82	11.62 (N=49)	71.39	8.59 (N=49)
Group 3	55.20	15.64 (N=50)	74.82	8.34 (N=45)
Group 4	52.22	16.53 (N=49)	70.98	13.39 (N=47)

Table 2: Two-Way ANOVA on English Pre-Test by Chinese Junior College
EFL Students　(A-Year-Levels　B-Sub-Groups)

SV	df	SS	MS	F	P-Value
A	1	35248.05	35248.05	201.48	0.000*
B	3	794.78	264.93	1.51	0.210
AB	3	289.18	96.39	0.55	0.648
S(AB)	379	66478.72	174.94		

$F_{.95} (1,379)=3.86$　　$F_{.95}(3,379)=2.62$　　*$P<0.05$

Subjects' performances on English pre-tests were compared and analyzed by the statistical program to see whether subjects from the same or different years had different levels of English proficiency (See Tables 1 & 2). Results show that there is a significant main effect for the factor, year-levels, (F $(1,379)=201.48$, $P=0.000<0.05$). That is, there are significantly different performances by the second- and fourth-year students on the English pre-test. The follow-up t-tests show that the fourth-year students with two more years of academic English study had better English proficiency than the second-year students. Thus, in this study we defined the second-year students as the less-skilled readers and the fourth-year students as the skilled readers. The main effect for factor, groups, was not significant (F $(1,379)=1.51$, $P=0.210>0.05$); that is, there is no significant

difference in the performance of English pre-test among the four second-year groups as well as among the four fourth-year groups.   The results from the study are presented in the order of the research questions raised in this study.

B. Vocabulary and Comprehension Tests

Research Question 1: Does Chinese junior college EFL students' different lengths of English study affect their learning from pre-reading vocabulary instruction or cultural background knowledge activation on English vocabulary acquisition and reading comprehension?

Table 3: Descriptive Statistics for the Vocabulary Tests
by Chinese Junior College EFL Students

Groups	Second-Year Students		Fourth-Year Students	
	Mean	SD	Mean	SD
Group 1	66.60	18.13 (N=50)	74.17	17.36 (N=48)
Group 2	36.74	15.33 (N=49)	41.84	16.67 (N=49)
Group 3	62.60	16.76 (N=50)	62.44	18.97 (N=45)
Group 4	31.84	13.49 (N=49)	31.70	15.08 (N=47)
Total	49.60	22.12 (N=198)	52.44	23.82 (N=189)

Table 4: Descriptive Statistics for the Reading Comprehension Tests
by Chinese EFL Junior College Students

Groups	Second-Year Students		Fourth-Year Students	
	Mean	SD	Mean	SD
*Group 1	48.40	16.70 (N=50)	67.13	16.71 (N=48)
Group 2	50.00	17.20 (N=49)	57.35	17.77 (N=49)
Group 3	44.60	14.32 (N=50)	57.78	17.69 (N=45)
Group 4	41.63	12.97 (N=49)	51.28	18.72 (N=47)
Total	46.16	15.63 (N=198)	58.42	18.49 (N=189)

Table 5: Three-Way ANOVA on the Vocabulary and Comprehension Tests
(A- Year-Levels　B-Treatments　C-Performance)

SV	df	SS	MS	F	P-Value
A	1	1138.36	1138.36	41.35	0.000*
B	3	70779.31	23593.10	86.04	0.000
AB	3	2042.39	680.80	2.48	0.060
C	1	316.53	316.53	1.15	0.283
AC	1	4026.88	4026.88	14.68	0.000*
BC3	3	4041.02	11347.01	41.38	0.000*
ABC	3	845.28	281.76	1.03	0.380
S(ABC)	758	207859.47	274.22		

* $P<0.05$

Both vocabulary and comprehension tests were scored by the number of correct answers that subjects provided on the tests.　The highest possible score for each test was 100. Mean scores on vocabulary and reading comprehension tests for each sub-group on Tables 3 and 4, and a three way ANOVA test on Table 5 show that there is a significant main effect for the factor, year-levels (F=41.35, $P=0.000<0.05$).　The main effect for the factor, treatments, is significant as well (F=86.04, $P=0.000<0.05$).　It appears that Chinese junior college EFL students with various lengths of English study and proficiency did have different reactions toward the various pre-reading instruction treatments.　Furthermore, there are two significant interactions: 1) a significant interaction between the two factors, year-levels and performance (F=14.68, $P=0.000<0.05$) and 2) a significant interaction between the two factors, treatments and performance (F=41.38, $P=0.000<0.05$).　The interactions imply that different year-levels of students receiving various treatments did have different performances on the vocabulary and reading comprehension tests.

Table 6: Two-Way ANOVA on the Vocabulary Tests by Chinese Junior College EFL Students (A-Year-Levels   B-Treatments)

SV	df	SS	MS	F	P-Value
A	1	925.33	925.53	3.38	0.067
B	3	98316.80	32772.27	119.78	0.000*
AB	3	1088.67	362.89	1.33	0.265
S(AB)	379	103692.55	273.60		
$F_{.95}(1,379)=3.86$		$F_{.95}(3,379)=2.62$		*$P<0.05$	

Table 7: Two-Way ANOVA on the Reading Comprehension Tests by Chinese Junior College EFL Students (A-Year-Levels   B-Treatments)

SV	df	SS	MS	F	P-Value
A	1	14439.71	14439.71	52.54	0.000*
B	3	6503.54	2167.58	7.89	0.000*
AB	3	1799.00	599.67	2.18	0.090
S(AB)	379	104166.92	274.85		
$F_{.95}(1,379)=3.86$		$F_{.95}(3,379)=2.62$		*$P<0.05$	

In order to thoroughly examine how the students from two different year-levels performed differently, two two-way ANOVA studies were conducted (See Tables 6 & 7).   Statistic results suggest that for the vocabulary test, both second- and fourth-year students did not have significantly different performances (F=3.38, P=0.067>0.05).   However, subjects who received different pre-reading instructions had significant performance on the vocabulary test (F=119.78, P=0.000<0.05).   For the reading comprehension test, both second- and fourth-year students performed significantly differently (F=52.54, P=0.000<0.05), and subjects receiving different pre-reading instruction did have significantly different performances on the reading comprehension test as well (F=7.89, P=0.000<0.05). Follow up t-tests results show that on the reading comprehension test, the fourth-year students performed significantly better than second-year students. However, on the vocabulary test, the fourth-year students did not perform significantly better than the second-year students. Simply put, second- and fourth-year students did not differ significantly on their performances on vocabulary tests, but they did, however, on reading comprehension. This seems to

suggest that vocabulary knowledge is not the only variable contributing to reading comprehension.

C. Effectiveness of Pre-Reading Vocabulary Instruction

Research Question 2: Does the pre-reading vocabulary instruction have influence on Chinese junior college EFL students' vocabulary acquisition or reading comprehension?

Table 8: Follow-Up T-Tests on the Vocabulary Test
by Chinese Junior College EFL Students

Comparison of Group Means	t	P-Value
A. Second-Year Students		
Group 1 (66.60) vs Group 2 (36.74)	9.264	0.000*
Group 1 (66.60) vs Group 3 (62.60)	1.247	0.214
Group 1 (66.60) vs Group 4 (31.84)	10.783	0.000*
Group 2 (36.74) vs Group 3 (62.60)	8.023	0.000*
Group 2 (36.74) vs Group 4 (31.84)	1.512	0.132
Group 3 (62.60) vs Group4 (31.84)	9.543	0.000*
B. Fourth-Year Students		
Group 1 (74.17) vs Group 2 (41.84)	9.336	0.000*
Group 1 (74.17) vs Group 3 (62.44)	3.313	0.001*
Group 1 (74.17) vs Group 4 (31.70)	12.135	0.000*
Group 2 (41.84) vs Group 3 (62.44)	5.853	0.000*
Group 2 (41.84) vs Group 4 (31.70)	2.911	0.004*
Group 3 (62.44) vs Group4 (31.70)	8.644	0.000*

$t_{.975}(185)=1.96$　　　$t_{.975}(194)=1.96$　　　*$P<0$.

Follow-up t-tests results of the vocabulary test from Table 8 further validate that among *the second-year students,* groups 1 and 2 significantly outperformed the control group, with no pre-reading instruction, and group 3, with cultural background knowledge activation only. It is clear that second-year students who received *pre-reading vocabulary instruction* did perform significantly better than those who did not on *the vocabulary test.*

For *the fourth-year students*, follow-up t-tests results from Table 8 verified that among fourth-year students, groups 1 and 2 performed significantly better than the groups who had cultural background knowledge activation only (group3) or the control group (group 4) who had no pre-reading activities at all on the vocabulary test.   It is clear that *pre-reading vocabulary instruction* did have an effect on students' *vocabulary acquisition.*   However, the fourth-year students with two more years of English learning experience did not have significantly different performances on the vocabulary test than the second-year students. This implies that subjects' vocabulary knowledge can be increased with a short period of vocabulary instruction and thus holding the same teaching effects for subjects with various lengths of English study.

Table 9: Follow-Up T-Tests on the Reading Comprehension Test
by Chinese Junior College EFL Students

Comparison of Group Means	t	P-Value
A. Second-Year Students		
Group 1 (48.40) vs Group 2 (50.00)	0.517	0.606
Group 1 (48.40) vs Group 3 (44.60)	1.234	0.219
Group 1 (48.40) vs Group 4 (41.63)	2.187	0.030*
Group 2 (50.00) vs Group 3 (44.60)	1.745	0.083
Group 2 (50.00) vs Group 4 (44.63)	2.690	0.008*
Group 3 (44.60) vs Group4 (41.63)	0.959	0.339
B. Fourth-Year Students		
Group 1 (67.13) vs Group 2 (57.35)	2.715	0.007*
Group 1 (67.13) vs Group 3 (57.78)	2.540	0.012*
Group 1 (67.13) vs Group 4 (51.28)	4.355	0.000*
Group 2 (57.35) vs Group 3 (57.78)	0.118	0.906
Group 2 (57.35) vs Group 4 (51.28)	1.677	0.095
Group 3 (57.78) vs Group4 (51.28)	1.758	0.080

$t_{.975}$ (185)=1.96 $t_{.975}$(194)=1.96   *$P<0.05$

However, follow-up t-tests results from Table 9 show that *second-year and fourth-year EFL students* receiving only *pre-reading vocabulary instruction* didn't have significantly different performance on the r*eading comprehension test.* Thus, it appears that pre-reading vocabulary instruction alone could not account for readers' reading comprehension.　From the study results, it is clear that vocabulary instruction is a limited factor in affecting reading comprehension. Another possible explanation for the pre-reading vocabulary instruction not having a profound effect is that the teaching time was too short and with little repetition, not allowing subjects to master the vocabulary in reading comprehension.　It implies that vocabulary is quite important when learning to read, but not the only variable. The study results also give feedback regarding the reading model, reading being an interactive process including the top-down and the bottom-up process.

D. Effectiveness of Pre-Reading Cultural Background Knowledge Activation

Research Question 3: Does pre-reading cultural background knowledge activation have influence on Chinese junior college EFL students' vocabulary acquisition or reading comprehension?

Follow-up t-test results of *reading comprehension performance* from Table 9 show that the second- and fourth-year students did have different reactions toward the *pre-reading cultural background knowledge activation.*　It is clear to see that for *the intermediate-high proficiency readers (fourth-year students),* having cultural background knowledge activation along with vocabulary instruction would benefit their reading comprehension.　To have either instruction only did have some effects on their reading comprehension rather than to have none of them, though the statistical results were not significant.　However, having both pre-reading vocabulary instruction and cultural background knowledge activation would greatly increase their reading comprehension.

On the other hand, we find out that *the intermediate-low proficiency readers (second-year students)* who received both pre-reading activities performed almost equally to those who had either instruction only, and more importantly, performed better than the control group on *reading comprehension test.*　It appears that the

less skilled readers relied equally on vocabulary knowledge and cultural background knowledge in EFL reading. In other words, they needed to pay equal attention to decoding words as well as generating appropriate predictions about the text. Since English is Chinese EFL subjects' foreign language, limited vocabulary and lack of cultural background knowledge are their greatest difficulties in learning to read English. According to Favreau et al. (1980), the less skilled L2/FL readers are not able to apply the bottom-up word decoding strategies or higher level context and syntax clues as flexibly as the skilled L2/FL readers. Therefore, in this study it can be concluded that cultural background knowledge activation along with vocabulary instruction had greater effects on the fourth-year students' reading comprehension than that on the second-year students.

Follow-up t-test results from Table 8 show that *pre-reading cultural background knowledge activation* had more effects on t*he fourth-year students' vocabulary acquisition* than that on the second-year students. The study results imply that the skilled readers (fourth-year students) were better than the less skilled readers (second-year student) at applying context and syntax clues (top-down processing) to guess the unknown words' meanings (bottom-up processing). Fourth-year students receiving both pre-reading activities greatly increased their performance on the vocabulary test, giving positive feedback to the schema theory and the interactive processing model.

The second-year students who received both pre-reading activities significantly outperformed the control group and those who had cultural background knowledge activation; however, they weren't better than the group who had vocabulary instruction on *the vocabulary test*. The group who received vocabulary instruction only significantly outperformed the control group and those who had pre-reading cultural background knowledge activation only. However, the group who had cultural background knowledge activation only did not have a significantly different performance than the control group on the vocabulary test. It appears that for the less skilled readers (second-year students), the pre-reading vocabulary instruction was more effective than the pre-reading

cultural background knowledge activation in increasing their vocabulary knowledge within a short period of time. The less skilled readers with limited vocabulary would spend more time on decoding words while reading. When they received both pre-reading cultural background knowledge activation and vocabulary instruction, it would benefit them more to guess the meanings of words. However, when they had pre-reading cultural background knowledge activation only, the teaching effects were less significant than the pre-reading vocabulary instruction on their vocabulary acquisition. The study results show that while reading, cultural background knowledge activation along with vocabulary instruction was the most powerful and effective teaching method to increase EFL students' vocabulary acquisition for both the skilled and the less skilled learners.

E. Knowledge of Vocabulary and Reading Comprehension

Research Question 4: Does Chinese junior college EFL students' vocabulary knowledge correlate with their reading comprehension?

Table 10: Correlation Tests on the Vocabulary and Reading Comprehension Tests by Chinese Junior College EFL Students

Groups	Correlation (r)	P-Value
Second-Year Students (N=199)	0.2440	0.756
Fourth-Year Students (N=189)	0.9048	0.095
Total Groups (N=388)	0.4729	0.237

Results from correlation tests on Table 10 show second-year EFL students' performance on the vocabulary test did not significantly correlate with their reading comprehension scores (r=0.2440, *P*=0.756>0.05). For the fourth-year students, performance on the vocabulary test didn't significantly correlate with their reading comprehension, either (r=0.9048, *P*=0.095>0.05). For the whole group, the correlation test results were not significant at all (r=0.4729, *P*=0.237>0.05). That is, EFL students' vocabulary knowledge did not contribute significantly to their reading comprehension. Their vocabulary knowledge could not totally account for their reading comprehension.

The calculation of reliability for both the vocabulary and reading

comprehension tests uses the KR-21 Formula (Kuder-Richardson reliability coefficients).   The reliability for the vocabulary test is 0.78 and for the reading comprehension test is 0.83. **V. Conclusion**

The main objectives of the present study were to examine the effects of pre-reading vocabulary instruction and cultural background knowledge activation on Chinese EFL students' vocabulary acquisition and reading comprehension.   In addition, the effects of students' length of English study and proficiency on their learning from pre-reading activities was also examined.   The study results suggest that pre-reading cultural background knowledge activation and vocabulary instruction influenced the students' vocabulary acquisition and reading comprehension.   Their different lengths of English study and proficiency did affect their learning from pre-reading vocabulary instruction and cultural background knowledge activation. The findings of this study provide the following implications for English instruction in Taiwan.

First: The emphasis of pre-reading activities.   Preparing students thoroughly before reading will give them a lot of confidence.   It must be reiterated that English is Chinese EFL students' foreign language, not their native language.   They lack authentic material input and cultural information stimulation, and cannot read as quickly or as confidently as native (English) speakers.   For Chinese EFL learners, the two greatest difficulties are vocabulary and cultural background knowledge.   Having the pre-reading vocabulary instruction and cultural background knowledge activation aids with students' confidence and interest in reading. The pre-reading activities can motivate students to learn English more actively and with greater interest.   A few minutes of pre-reading activity before lessons   is helpful and beneficial to EFL learners' reading comprehension.   More pre-reading activities are recommended to be adapted to English classroom instruction.

Second: Vocabulary instruction in an EFL reading class.   Most Chinese students are frustrated by the vast amount of vocabulary as they read English texts. In this study, the test results show vocabulary instruction has positive effects on increasing subjects' knowledge of vocabulary.   Though the study results show

that knowledge of vocabulary is not the only variable accounting for a reader's reading comprehension; it is a necessary tool in preparing one to read well in English. Hence, vocabulary instruction should be emphasized in an EFL reading class.

Third: Integrate cultural background knowledge instruction into an EFL reading class. To learn a language is also to learn its culture. Language and culture have a close relationship; they cannot be separated when learning a language. In this study, the test results indicate that the intermediate-high proficiency readers (fourth-year students) were more effective in applying cultural background knowledge to guess the meanings of unknown words. The intermediate-low proficiency readers (second-year students) benefited more from cultural background knowledge activation in reading comprehension. Furthermore, applying both pre-reading cultural background knowledge activation and vocabulary instruction was the most powerful and effective instructional methodology to aid students in reading comprehension. The study results suggest that linking cultural background knowledge activation with vocabulary instruction will bring readers more benefits when learning to read in English.

Fourth: The combination of bottom-up and top-down processing in EFL reading. The teacher is the key person when guiding students to read through applying interactive processing, using the bottom-up decoding with the top-down higher level conceptual processing in EFL reading. Students do not learn to read naturally on their own; they will need some guidance and instruction. Chinese EFL teachers have the obligation and responsibility to guide students to read a text with the combination of bottom-up and top-down processing. They should help them not only to be able to decode words automatically but also to apply the prior knowledge to learn new information. The combination of pre-reading cultural background knowledge activation and vocabulary instruction is an example of interactive reading activities.

The results of this current study have shown the influence of pre-reading vocabulary instruction and cultural background knowledge activation on Chinese junior college EFL students' English vocabulary acquisition and reading

comprehension. Both have their own particular effects on students' vocabulary acquisition and reading comprehension. Due to limitations in their learning environment and the lack of cultural information stimuli, Chinese EFL teachers should take into consideration the integration of pre-reading vocabulary instruction and cultural background knowledge activation in an EFL classroom as well as considering students' length of English study and proficiency.

REFERENCES

Bernhardt, E. B. (1991). *Reading development in a second language: Theoretical, empirical & classroom perspectives*.   Norwod, NJ: Ablex.

Carrell, P. L. (1987).   Content and formal schemata in ESL reading. *TESOL Quarterly*, 21, 461-81.

Cohen, A. D. (1990). *Language learning: Insights for learners, teachers, and researchers*.   New York: Newbury House Publishers.

Cortazzi, M. & Jin, L. (1994).   Ways with words – Chinese students' learning of English vocabulary.   In L. W. P. Li,   et al. (Eds.), *Papers from the Tenth Conference on English Teaching and Learning in the Republic of China* (pp. 15-28). Taipei: Crane.

Favoreau, M., Komoda, M. K., & Segalowitz, N. (1980).   Second language reading: Implications of the word superiority effect in skilled bilinguals. *Canadian Journal of Psychology, 34,* 370-80.

Floyd, P., & Carrell, P.L. (1987).   Effects on ESL reading of teaching cultural content schemata. *Language Learning*, 37, 89-108.

Grabe, W., & Stoller, F. L.(1997).   Reading and vocabulary development in a second language.   In J. Coady, & T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 98-122).   Cambridge: Cambridge University Press.

Graves, M. F., & Graves, B. B. (1994).   Scaffold reading experiences to promote success for students learning English as a foreign language. In L. W. P. Li et al. (Eds.), *Papers from the Tenth Conference on English Teaching and Learning*

in the Republic of China (pp. 1-14).　Taipei: Crane.

Graves, M. F. (1987).　The roles of instruction fostering vocabulary development. In M. McKeown, & M. Curtis (Eds.), *The nature of vocabulary acquisition* (pp. 165-84).　Hillsdale, NJ: Erlbaum.

Harley, B. (1995). Introduction: The lexicon in second language research.　In B. Harley (Ed.), *Lexical issues in language learning* (pp. 1-28).　Amsterdam: John Benjamins.

Haenggi, D., & Perfetti, C. A. (1994).　Processing components of college-level reading comprehension.　*Discourse Leadership*, 45, 58-64.
Hsieh, L. T. (2000). The application of vocabulary cards to English vocabulary and Reading learning.　*Studies in English Language and Literature*, *7*, 1-9.

Hsieh, L. T. (2001).　Teaching strategies and applications for newspaper reading. *Selected papers from the Tenth International Symposium on English Teaching* (pp. 402-409). Taipei: Crane.

Huckin, T., Haynes, M. & Coady, J. (1993). *Second language reading and vocabulary learning.*　Norwood, NJ: Ablex.

Nation, I. S. P. (1993).　Vocabulary size, growth, and use.　In R. Schreuder & B. Weltens (Eds.), *The Bilingual lexicon* (pp. 115-34).
Amsterdam/Philadelphia: John Benjamin.

Paribakht, T. S., & Wesche, M. (1997).　Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition.　In J. Coady, & T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 174-200). Cambridge:
Cambridge University Press.Perfetti, C. A.,

Ridgway, T. (1997).　Thresholds of the background knowledge effect in foreign language reading. *Reading in a Foreign Language*, 11, 151-66.

Stahl, S. (1983). Differential word knowledge and reading comprehension. *Applied Linguistics, 7,* 71-85.

Stroller, F. L., & Grabe, W. (1993).　Implications for L2 vocabulary acquisition and instruction from L1 vocabulary research.　In T. Huckin, M. Haynes, & J. Coady

(Eds.),

Second language reading and vocabulary learning (pp. 24-45). Norwood, NJ: Ablex.

黃自來(2001). 字彙與閱讀之探討與實踐研究. ＜第十屆中華民國英語文教學國際研討會論文集＞，頁 446-455.

開一心(2001). 運用基模閱讀小說 – 分析文本中的空間意象. ＜第十屆中華民國英語文教學國際研討會論文集＞，頁 478–491.

謝良足(1996). Do cultural schemata or formal schemata play an more important role in EFL reading?＜國立屏東商業專科學校學報＞, 4, 231-248.

謝良足(1997). Teaching English vocabulary and reading in an EFL classroom. ＜國立屏東商業專科學校學報＞, 5, 221-240.