# The Effects of Vocabulary Knowledge on English Magazine Reading 

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## Introduction

The relationship between vocabulary knowledge and reading comprehension has long been discussed among researchers. The issues of how reading increases vocabulary knowledge and how vocabulary can be best taught in the classroom have also been discussed. Extensive reading is considered to be effective in helping EFL learners acquire vocabulary. Coady (1997) claims that a great deal of L2 vocabulary is indeed learned through extensive reading. In a study by W. Grabe and F. Stoller describe a case study in which an American student learned Portuguese by extensive reading of newspapers. They reported that "reading and vocabulary are reciprocally causal,..... reading improves vocabulary knowledge and vocabulary knowledge supports reading development." (W.Grabe \& F.L. Stoller, 1997. pl19) They concluded that reading and vocabulary abilities did develop as a result of extensive reading practice. Paribankt and Wesche (1997) point out that extensive reading programs are generally more effective than systematic vocabulary instruction using decontextualized exercises.
This paper looks at Japanese EFL learners and the factors that affect their reading and understanding using the medium of English magazines. We assume that college students have acquired enough vocabulary to read a wide variety of materials in English because they have studied English for over six years. They have learned a lot about English grammar and how English sentences are formed. College students, themselves however, think that reading English magazines is difficult because of a lack of vocabulary. Of all the aspects to becoming successful readers in English, vocabulary knowledge may be the most important for Japanese.
In this paper we examined how vocabulary knowledge affects on reading comprehension and what kind of vocabulary knowledge supports reading comprehension. Another purpose of this paper is to get insights which can help students become advanced readers of English magazines and newspapers.

## Method

## Design

College－level students read an article from an English magazine．After reading the article，they were tested for comprehension，after which they were tested for vocabulary knowledge．

## Subjects

The subjects for analysis were 80 college－level students．They were not English majors， but study English as a foreign language．For six months prior to the test，they had been reading a wide variety of selections from English magazines．

## Reading Materials

The selection that the students read was an article from a monthly English magazine， ＂TIME＂．Its headline was Where There＇s Smoke…．－The first lawsuits against French cigarette makers－．The article relates to movements toward non－smoking in France and the United States．The number of people who smoke is decreasing，and we often see articles about lawsuits related to smoking even in Japan．It seems that college students are becoming interested in environmental and health issues，and smoking is one of the most important ones．It was felt that this article was of high interest and therefore motivating to read．

## Testing Materials

The reading comprehension test consisted of three parts，and each part asked questions about a paragraph．The first part contained 8 open－ended questions．The second part 3 questions and the third part 8 questions，all of which are open－ended questions except one．The students were asked to answer the questions as specifically as possible in Japanese．
The vocabulary knowledge test given after the reading comprehension test contained 49 English words selected from the article with Japanese choices of the meanings at the bottom．

## Procedure

The subjects were divided into two groups．One group was 40 first－year college students and the other group 40 second－year college students．The students read the article and answered the comprehension questions．This lasted 50 minutes．After this，the students took a vocabulary test that lasted 20 minutes．They were allowed to read the text during the vocabulary test．The vocabulary test contained 49 words： 8 essential words for junior high school students（JH level words）， 31 essential words for high school students（HS level words）， 4 essential words for college students（C level words），and others．The words were divided into three levels as noted in Taishukan＇s GENIUS English－Japanese Dictionary．

## Results and Discussion

The subjects were divided into three groups based on scores as follows:

1. An advanced group of 24 subjects who got scores over 25 points.
2. An intermediate group of 38 subjects who got scores from 16 points to 24 points.
3. A low group of 14 subjects whose scores were below 15 points.

The average score on the comprehension test was 20.9 points. The average score on vocabulary test of each group was 41.7 points, 38.5 points, and 27.1 points, respectively. It is very interesting to note that the subjects who got very high scores in vocabulary got low comprehension scores. Looking at the data more carefully, I found that their vocabulary knowledge didn't help them understand the content of the article. Those subjects who got low scores in comprehension in spite of high scores in vocabulary test didn't know the meanings of key words for comprehension or failed to guess meanings from the context.
Table 1 gives the percentage of correct answers for total target words. The bottom group had the lowest percentages among all the levels, while the advanced group had the highest. Although both the advanced and intermediate groups obtained over $60 \%$ of correct answers, the bottom group got $58.3 \%$ for HS level words and $37.3 \%$ for C level words.
Table 2 gives the percentage of correct answers for $H$ level words by parts of speech. It is interesting that all three groups showed the highest percentages for nouns and the lowest for verbs. The advanced group showed extremely high percentages for adjectives and nouns. Concerning verbs, the bottom group got only half of the percentage of the advanced group. This result seems to indicate that verbs play a very important role in comprehension. As the test article discusses anti-smoking movements and law suits against smoking, words such as issue, legal, ban, suit, charge, estimate, sue, and addict are considered to be essential key words for comprehension. The kind of words the subjects in each group knew and didn't know can be seen from Figure 1 and 2. Only the

Table 1 .Percentage of Correct Answers for Total Target Words

|  | JH level | HS level | C level |
| :--- | ---: | ---: | ---: |
| Advanced | 89.06 | 86.02 | 72.61 |
| Intermediate | 85.85 | 77.84 | 60.15 |
| Low | 77.67 | 58.29 | 37.25 |

Table 2 .Percentage of Correct Answers for HS level Words by Parts of Speech

|  | Adj. | Noun | Verb |
| :--- | ---: | ---: | ---: |
| Advanced | 88.88 | 94.72 | 71.25 |
| Intermediate | 78.5 | 87.71 | 62.63 |
| Low | 60.7 | 70.47 | 38.57 |

essential words for high school students（HS level words）were examined since they comprised about $70 \%$ of the target words．The advanced group showed a higher percentage of correct answers to the above key words compared with other groups．

## Conclusion

The aim of this study was to investigate how vocabulary knowledge affects on reading comprehension and what kind of vocabulary knowledge helps comprehension．The result of the study suggest that one important factor for Japanese EFL learners to develop reading comprehension is vocabulary knowledge．That is，vocabulary enhances reading comprehension．However，teachers consider parts of speech and learners＇reading ability level when deciding how vocabulary is to be taught．

## References

Coady，J．（1997）．L2 vocabulary acquisition through extensive reading．In J．Coady \＆T． Huckin（Eds．），Second Language Vocabulary Acquisition（pp．225－237）．Cambridge： Cambridge University Press．
Grabe，W．，\＆Stoller，F．（1997）．Reading and vocabulary development in a second language．In J．Coady \＆T．Huckin（Eds．），Second Language Vocabulary Acquisiton （pp．119）．Cambridge：Cambridge University Press．
Luppescu，S．，\＆Day，R．（1993）．Reading，Dictionaries，and Vocabulary Learning． Language Learning，43（2），263－287．
Nation，P．，\＆Coady，J．（1988）．Vocabulary and reading．In R．Carter \＆M．McCarthy （Eds．），Vocabulary and language teaching（pp．97－110）．London：Longman．
Paribakht．T．，\＆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．174－201）．Cambridge University Press．

Figure 1 .Percentage of correct answers for total noun words


Figure 2 .Percentage of correct answers for total verb words


