

# Analysis of English Word Recognition Development —英単語の認識能力の向上の分析—

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## Abstract

This study looks at the development of word recognition for students enrolled in the Movie Listening course over one semester as measured by the Vocabulary Levels Test (VLT). This test was designed to estimate basic knowledge of common meanings of words which are organized by their approximate frequency of occurrence in written and spoken English. Another purpose of this study was to explore the effect of direct vocabulary instruction of higher frequency vocabulary. Results from the VLT showed that on average, students knew 80% of words at the 2,000 word level, 63.3% of words at the 3,000 word level and 36.75% of words at the 5,000 word level by the end of the semester. Students learned 90.8% of the 75 vocabulary words that were directly taught through the course. Student gains on the VLT only increased by one to two points over the semester suggesting more focus on vocabulary learning is needed.

Keywords: receptive vocabulary knowledge, vocabulary levels test, direct vocabulary instruction, implicit vocabulary learning

キーワード：語彙認識、語彙レベルテスト、直接語彙指示、無意識的語彙習得

## 1. Introduction

Knowledge of English vocabulary is obviously an important component in developing English listening, speaking, reading and writing skills. Conversely, the lack of adequate vocabulary knowledge will stifle an English learners' language development. In regards to reading skills, Laufer (1997) states:

By far the greatest lexical obstacle to good reading is insufficient number of words in the learner's lexicon. Lexis was found to be the best predictor of success in reading, better than syntax or general reading ability. Whatever the effect of reading strategies is, it is short-circuited if the vocabulary is below the threshold, i.e., below 3,000 word families or 5,000 lexical items.

Without an adequate knowledge of English vocabulary, students will struggle to improve in not only reading, but in all of their English language skills.

If a limited vocabulary impairs English proficiency development, what steps can English teachers take to support lexical development? First, we need a way to measure vocabulary knowledge so that we can identify which words need to be learned first. Having an accurate assessment of vocabulary knowledge will help us manage the process of building each student's lexicon.

English instructors need to know which words have been acquired and which remain unknown to learners. However, this is problematic for various reasons. How can we assess student knowledge of English vocabulary when there are hundreds of thousands of words, how do we determine that a word is known or unknown and are our assessments valid and reliable?

There are no easy answers for these questions, but the Vocabulary Size Test (VST) (Nation, 2007) has been one popular option to provide a quick (less than an hour) and accurate assessment of vocabulary size. The test is organized by word frequency levels and progresses in groups of 1,000 word bands up to the 14,000 word level. Through analysis of the spoken portion of the British National Corpus, with over 100 million words, researchers have identified the most frequently occurring words in the corpus and put them in 1,000 word groups, or frequency levels. The VST uses a sample of 10 words from each word frequency level up to the 14,000 word level. The average of the test taker's scores on all of the levels is used to judge their overall vocabulary size in English.

How should we determine if a word is actually known? Vocabulary knowledge progresses incrementally from just a sense of the new word's meaning to familiarity with various usages and nuances of the word. As the student meets the new word in various contexts she begins to gradually form a more complete representation of the word's actual meaning and usage. The VST measures receptive vocabulary knowledge which is a precursor for the latter stages of vocabulary development. It is a multiple choice format test with the vocabulary word being tested presented in a sentence followed by four choices. The test taker selects the choice that best defines the word.

According to Nation (2006), a vocabulary size of 9,000 word families is needed to have 98% coverage of the vocabulary in a typical novel and 7,000 word families are needed for 98% coverage with spoken English. McLean et al. (2014) found that 3,427 Japanese students at various universities had an average vocabulary size of 3,715 word families as measured by the VST. This indicates that the average Japanese university student's receptive vocabulary is probably too small to deal with typical unsimplified spoken and written texts. Students and educators will need to focus more heavily on vocabulary development in order to facilitate a basic level of comprehension.

Despite the demonstrated reliability of the VST (Beglar, 2010), the test is designed to be a measure of overall vocabulary size. Ten questions per frequency band are not sufficient to demonstrate the depth of vocabulary knowledge at a given frequency level. For the purposes of this study, the Vocabulary Levels Test (VLT) versions 1 and 2 (Schmitt, 2001), which tests the knowledge of thirty words at each of the 2,000, 3,000, 5,000, 10,000 and Academic Word frequency levels was used. The test taker matches the target word to a list of synonyms or brief definitions (see appendix). Studies reporting on the results for Japanese university students on the Vocabulary Levels Test were not found so the author/researcher hopes to contribute to this lack of information with the current study.

The main purpose of this study is to investigate receptive vocabulary levels and their development over one semester as measured by the Vocabulary Levels Test. This study attempts to record the degree of change in vocabulary knowledge we can observe over one semester. The results may indicate what areas of vocabulary learning need to be addressed and how to better support student vocabulary development.

Another aim is to investigate the role of intensive vocabulary instruction of the words selected for study by the course textbook. I explore whether these words were actually learned and how likely is it that students will meet them again in other contexts based on the frequency levels those words belong to. Also, considering the results from this research, I'd like to discuss some ideas and suggestions for helping students more effectively develop their vocabularies.

## 2. Method

### 1) Subjects

The subjects of this study were second-year students at the University of Shimane Junior College taking the course Movie Listening during the first semester of the 2015 academic year. Of the thirty students enrolled in the course, twenty-eight were English majors. The course was taught by the author.

### 2) Materials and Procedures

The 1,000, 2,000, 3,000 and 5,000 word level sections of the Vocabulary Levels Test, version 2 (Schmitt, 2001) were used to measure students' receptive vocabulary knowledge. A pre-test was given to the whole class at the beginning of the semester in April and the same test was given again as a post-test in July, at the end of the semester. The instructor/researcher graded all of the tests. Students were not given the answers and no attempt was made to intentionally teach any of the vocabulary from the test. Also, the time between the tests (4 months) was long enough to assume that the effects of familiarity with the test items were negligible.

As for the intensive vocabulary instruction in the Movie Listening course, the

instructor focused on teaching the vocabulary selected for study in the textbook for each unit. The course textbook, “Night at the Museum” (Mitani & Kanel, 2012) has 8 units each covering a scene of about ten to twenty minutes from the movie, *Night at the Museum*. Each unit features eight vocabulary words that are used in the movie scene. Students were instructed to learn the eight words each week and remember their meanings as they were used in the context of the scene.

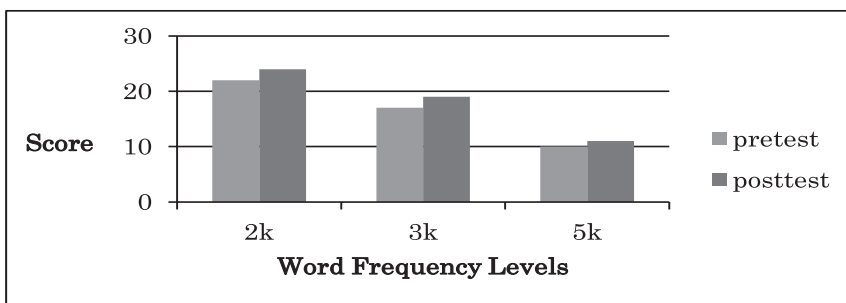
At the beginning of each class, I handed out a small piece of lined paper with three of the vocabulary words from the week’s textbook unit. Students were asked to write an original sentence using the word in a way that demonstrated their knowledge of the word’s meaning. For example, in the case of the word “duck,” students would need to use the verb form of the word as it was used in the movie scene and make it clear from the context of the sentence that they knew the meaning. For example, “They ducked to avoid the attack.” Browne (2003), demonstrated that this type of generative writing activity not only encourages students to learn the meaning and usage of new vocabulary but also helps them retain the meanings better. Each class, the previous week’s quizzes were returned with corrections. I also used flashcards to review the Japanese definitions of the eight vocabulary words at the end of each class.

A large component of the final exam for the Movie Listening course was a cumulative vocabulary test on all of the words they had studied from the textbook. The test consisted of sentences taken from the movie script in which the vocabulary word to be tested was used. In place of the word to be tested, I gave its Japanese definition and students were asked to write the missing English word for each sentence.

### 3. Results

Results from the VLT showed that on average, students knew 80% of words at the 2,000 word level, 63.3% of words at the 3,000 word level and 36.75% of words at the 5,000 word level by the end of the semester. Comparing the results from the pre and post Vocabulary Levels Test showed that very modest gains were made over one semester. The average gain was two points for the 2,000 and 3,000 word levels and one point for the 5,000 word level (Fig. 1).

Fig. 1 Vocabulary Levels Pre and Post-Test Results



The 75 vocabulary words that were taught directly in the Movie Listening class were recalled quite well as demonstrated by a class average of 90.8% on the final exam. Unfortunately, a follow-up test to determine the degree to which students retained the vocabulary words from the final exam was not given. The direct focus on the textbook's unit vocabulary each class along with the written quizzes and including the words on the final exam all surely helped students to commit the words to memory. However, some of the words selected in the textbook for the unit are low frequency vocabulary that students would be unlikely to encounter again. These words were of course important to know for understanding the movie scenes and were taught to the class identically to the more frequently used vocabulary.

An analysis of the frequency levels for the textbook vocabulary showed that 20 of the 75 words were at the 4,000 word level or higher (Table 1). Even though I instructed the class to learn these words, I have to question the value of learning such words as reptile, commotion and superstitious, which are at the 8,000, 9,000 and 12,000 word levels respectively, when the class has a limited knowledge of high-frequency vocabulary in the 1,000 to 3,000 word bands. It is advantageous to learn higher before lower frequency words. Knowing high frequency words makes English input more comprehensible. When students learn low frequency vocabulary, they are more likely to forget the words due to little or no exposure to them afterwards, resulting in wasted time and inefficient learning.

Table 1: Numbers of Textbook Vocabulary Grouped by Frequency Levels

Levels	1k	2k	3k	4k	5k	6k	7k	8k	9k	12k
No. of words	15	22	18	8	3	3	2	1	2	1

#### 4. Discussion

After three semesters in our program students were able to recognize about 63% of the words tested at the 3,000 word level on the VLT. The pedagogical implications of this analysis suggest we should focus more on learning words in the 3,000 word level while consolidating knowledge of the first and second thousand word levels. The results also show us that students made only slight vocabulary growth over one semester. Making measurable gains in vocabulary knowledge will require a more intense focus on vocabulary study. Since vocabulary knowledge is such an important fundamental skill, it seems that building student lexical knowledge necessitates consistent focus and attention in our practical English courses.

Incidental vocabulary acquisition or passive learning of words in the context of readings and assignments for various English courses does not seem sufficiently able to increase student vocabulary scores on the VLT. In my opinion, we should consider implementing a curriculum-wide system to monitor and support vocabulary development throughout our students' two-year educations. For example, instructors

in charge of first-year English courses could use online vocabulary study resources or word cards to make sure that students know most of the high frequency vocabulary at the 1,000 and 2,000 word levels. We could use more vocabulary-focused output assignments, class activities and assessments to help students learn proper word usages. After the course is finished, information about the students' lexical development should be shared with the English teaching faculty so that instructors can continue to monitor and support student learning in their next courses. Also, students should be encouraged to use effective methods for autonomously building their lexicons such as regularly reviewing words and extensive reading.

Final exam results for the Movie Listening vocabulary test demonstrated that students could learn many low frequency words that were directly taught in class. More focus needs to be put on mastery of the more practical, high frequency vocabulary at the 3,000 to 5,000 word levels. Only a limited number of words can be taught directly through our courses so we need to focus on teaching high frequency vocabulary until students are familiar with their meanings and can use the words proficiently in spoken and written communication. It may be necessary to restrict the amount of low frequency vocabulary taught or used in English courses so that students have the opportunity to deeply learn the most important high frequency words.

## 5. Conclusion

This study offers us a snapshot of second-year students' lexical knowledge in their first semester. It attempted to investigate receptive vocabulary levels and their development over one semester as measured by the Vocabulary Levels Test. The results showed that although students could recognize 80% of the words at the 2,000 word level, higher level words had not been adequately learned. Without larger receptive vocabularies, students will continue to struggle with understanding unsimplified texts or normal conversation.

Another aim of this paper was to examine the effect of direct vocabulary teaching in the Movie English course using vocabulary featured in the course textbook. Through weekly review, quizzes to use vocabulary in writing and including a large vocabulary section on the final exam, students were able to learn the textbook vocabulary quite well. By focusing on vocabulary in the course, students could expand their lexical knowledge to some extent.

Finally I suggested some ideas to support student lexical development such as monitoring and sharing data from assessments of vocabulary knowledge such as the Vocabulary Levels Test and the Vocabulary Size Test. Online resources or reviewing word cards are other ways we can help students develop their lexicons to reach higher levels of English comprehension and skill development.

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## Appendix

### Sample Questions from the Word Levels Test Version 2

You must choose the correct word from the left side to go with each meaning on the right. Write the number of that word next to its meaning.

#### 2,000 word level

- |            |   |
|------------|---|
| 1 copy     |   |
| 2 event    | _____ end or highest point              |
| 3 motor    | _____ this moves a car                  |
| 4 pity     | _____ thing made to be like             |
| 5 profit   | another                                 |
| 6 tip      |   |
|            |   |
| 1 accident |   |
| 2 debt     | _____ loud deep sound                   |
| 3 fortune  | _____ something you must pay            |
| 4 pride    | _____ having a high opinion of yourself |
| 5 roar     |   |
| 6 thread   |   |