

An Analysis of the Vocabulary Knowledge Attained by Japanese Students before Entering Universities

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1 INTRODUCTION

There has been much controversy over English language teaching in Japan. Especially well known is the proposal submitted by a member of the House of Councilors, Wataru Hiraizumi, to the meeting of the Liberal Democratic Party in 1975. It raised a serious discussion with Watanabe Shoji, a professor of Sophia University. Their discussion mainly focused on whether all Japanese students need to learn English and the purpose of teaching English in Japan (Hiraizumi and Watanabe 1975). Hiraizumi pointed out the inefficiency of English teaching in Japan, and this topic is still at the center of the discussion (Kawasumi 1999, p.17).

In fact, many Japanese students and adults often complain about the inefficiency. For example, they can not speak English at all even though they have studied English for more than 6 years. Though the Ministry of Education started many programs involving oral communication in schools, the inefficiency will still remain. The problem exists in other skills, too. As for writing, most Japanese university students are having hard time to express their thoughts in writing. As for reading, Japanese professors often complain that their students, at the third or fourth year of universities, can not read

academic articles, even easy novels. I, myself, found some difficulty when I first read English novels even though I studied several vocabulary textbooks very hard for university entrance exams.

There may be many reasons for this inefficiency. However, we often attribute it to the problem of our vocabulary knowledge. For example, when we talk about reading, students often say that they would read better only if they had had more vocabulary knowledge, though there may be other factors such as syntactic knowledge. We often regard the lack of vocabulary knowledge as a crucial problem.

In this paper, therefore, I would like to investigate the vocabulary knowledge Japanese students would attain before entering universities or colleges. First, four common word lists written by Japanese teachers are presented, and compared with the lists based on frequency counts. Then, we shall see how many of the words from the frequency word lists are included in the lists composed by the Japanese teachers, and examine the vocabulary knowledge Japanese students would attain before entering universities or colleges.

2 HYPOTHESES

The study was carried out based on following hypotheses:

- a) There are many low frequency words included in the word lists by Japanese teachers.
- b) There are many high frequency words that are not included in the word lists by Japanese teachers.
- c) The student will find some difficulty in reading English novels even though they study all the students learned all words selected by Japanese teachers.

3 PROCEDURE

First, the following word lists written by Japanese teachers were chosen.

- 1) 507 WORDS from the Ministry of Education
- 2) Word list from a junior high school textbook *New Horizon*
- 3) Word list from a high school textbook *Unicorn*
- 4) Word list from a popular vocabulary textbook for university entrance exam *Shiken ni Deru Eitango*

All these books are considered to be very popular in English teaching in Japan. 507 WORDS is a word list made by the Ministry of Education, and included in *The Course of Study*, the national educational guidelines. All English textbooks used in junior high schools have to include all the words in this list. *New Horizon* is an example of junior high school textbooks and it has the biggest share of the market. *Unicorn* is said to have a big share of the market, too. *Shiken ni Deru Eitango* is a very popular vocabulary textbook for preparing for university entrance exams. It is well known for including many words used in university entrance exams. Therefore, it is possible to expect that it will cover many words in the University Word Lists provided by Xue and Nation in *Teaching and Learning Vocabulary* by I. S. P. Nation (1990). Finally, a list summarizing all the words in 1) to 4) was made to represent all the vocabulary Japanese students would possibly learn before entering universities or colleges.

The lists used for comparison are the first 1000, and second 1000 words from a General Service List of English Words by Michael West (1953) and words from the University Word List by Xue and Nation

(Nation 1990). The analyzing procedure is done by VocabProfile programmed by Alex Heatley and devised by Hwang Kyongho and Paul Nation.

4 RESULTS AND DISCUSSION

4.1 507 WORDS

As in the TABLE 1, the coverage of 507 WORDS are high (89.0% in types and 88.9% in families) in the first 1000 words in GSL. However, it includes 51 words in the second 1000 GSL list, and 5 words from outside of the list. The 5 words are "notebook", "Japan", "Japanese", "January", and "yellow". However, "notebook" is a very important word for students. "Japan" and "Japanese" refer their native country for Japanese students. "Yellow" is a name of a color which needs to be learned, too. Nation (1990) says, "The most serious problem with word-frequency lists is that certain useful and important words do not occur in the first or second 1000 words (p.20)." Though

TABLE 1

Coverage of 507 WORDS of the Ministry of Education

by the General Service List (GSL) and the University Word List (UWL)

WORD LIST	TOKENS/%	TYPES/%	FAMILIES
First 1000GSL (3126 types, 999 families)	451/89.0	450/88.9	392
Second 1000GSL (2721 types, 986 families)	51/10.1	51/10.1	51
UWL (2838 types, 833 families)	0/ 0.0	0/ 0.0	0
Not in the lists	5/ 1.0	5/ 1.0	?????
Total	507	506	443

all the 5 words are classified as low frequency words in the GSL, they are surely very important for junior high school students. This phenomena clearly points out the problem of the word-frequency list.

4.2 Junior High School Textbook

As in TABLE 2, the coverage is 69.0% in the first 1000 GSL, and 14.5 %in the second 1000 GSL. Surprisingly, however, it is found that this textbook series for junior high school students includes words from University Word List 2.9%, and 13.6% from out of the three lists (e.g., the words from the UWL are such as "appeal", "bomb", "channel", "computer", "concert", "culture", "creative", "elevator", "environmental", "emotion"). However, if we look at those words, we can clearly see that most of the words are easy to learn for Japanese students because they are used also in Japanese as borrowed words even though they may be less frequent words.

Moreover, there are many nouns in the words not included in the lists. Half of them are proper nouns such as Ainu, Africa, Bangladesh, Brian, Betty, and Jane. These proper nouns are included because there

TABLE 2

Coverage of a Junior High School Textbook Word List

by the General Service List (GSL) and the University Word List (UWL)

WORD LIST	TOKENS/%	TYPES/%	FAMILIES
First 1000 GSL	818/69.0	757/67.6	587
Second 1000 GSL	172/14.5	169/15.1	159
UWL	34/ 2.9	34/3.0	33
Not in the lists	161/13.6	160/14.3	?????
Total	1185	1120	779

are several chapters about other cultures and countries. It is one of the main purposes of teaching English in junior high schools to develop an understanding of other cultures and countries in the world. Other nouns are such as banana, bathroom, carp, frog, and notebook. Again, they might be less frequent, but it is necessary for junior high schools students to learn these words.

4.3 High School Textbook

Even at the high school level, the first 1000 GSL has much higher coverage than others. However, this is because this word list includes the 507 WORDS selected by the Ministry of Education. If we eliminate the 507 words from the list, the number of tokens will be nearer 1000.

Moreover, the coverage by the words out of the three lists has increased from 13.6% to 26.5%. This is partly because this high school textbook series includes many readings on various topics, and thus the vocabulary is also varied. However, it includes words such as "daybed", "ape-man", "barnbrack", "nappy", "numb", "plunge", "pelt",

TABLE 3

Coverage of a High School Textbook Word List

by the General Service List (GSL) and the University Word List (UWL)

WORD LIST	TOKENS/%	TYPES/%	FAMILIES
First 1000 GSL	1415/43.0	1301/42.6	873
Second 1000 GSL	745/22.7	678/22.2	563
UWL	258/7.8	244/8.0	213
Not in the lists	870/26.5	829/27.2	?????
Total	3288	3052	1649

"monastery", "rummage", and so on. Even though they are necessary for literary expressions, there are so many other words that would be more useful for reading in English to teach first. If the text includes so many of these less frequent words, the students might find difficulty in reading.

Finally, the coverage by the UWL is unexpectedly low (34 token, 2.9%). This means the students do not attain enough vocabulary knowledge to cope with the level of words expected of them at university even though they memorize all the words in the series. Currently about half of high school students go on to higher education such as universities, colleges, and technical schools. Since this is a high school textbook series, it should cover more UWL vocabulary. This may be one part of the inefficiency of English teaching in Japan, and it forces the students to go to cram schools and do special training for the entrance exam.

TABLE 4

**Coverage of a Word List for Preparing for University Entrance Exams
by the General Service List (GSL) and the University Word List (UWL)**

WORD LIST	TOKENS/%	TYPES/%	FAMILIES
First 1000 GSL	415/14.5	408/14.3	309
Second 1000 GSL	492/17.2	488/17.1	351
UWL	710/24.8	707/24.9	462
Not in the lists	1246/43.5	1242/43.6	?????
Total	2863	2846	1122

4.4 Word List for Preparation for University Entrance Exams

Though the coverage by UWL increased from 7.8% to 24.8%, it is far from enough. As in TABLE 4, even the prep book for the entrance exam does not cover a third of UWL. Since the coverage of less frequent words out of the three lists increased from 26.5% to 43.5%, this prep book focuses more on low frequency words. Furthermore, since this book is famous for including many words which show up in the entrance exams, it is probable that the university entrance exams focus on something other than English used in universities and colleges. Just like the high school textbook results, this figure reveals the inefficiency of English teaching in Japan.

4.5 How Much Vocabulary Will Japanese Students Learn before Entering Universities or Colleges?

By putting all the lists in one file, the approximate level that Japanese students can attain before entering universities or colleges was examined. This level is a possible example, and of course, the actual vocabulary levels of students depend on their efforts. As in TABLE 5, though the highest coverage in tokens was the first 1000 GSL (36.1%), the words not in the lists cover 31.0% in tokens and 37.8% in types. This means that the vocabulary learned by Japanese students focuses too much on low frequency word, and again, we could see the inefficiency in the total phase, too.

Moreover, as in TABLE 6, the percentages of words which Japanese students will possibly learn before entering universities or colleges were computed for each list. As for the first 100 GSL words, 46.7% in types and 93.5 % will be learned. In the second 1000 words, 36.0% in types

TABLE 5

Coverage of Vocabulary Japanese Students Will Possibly Learn

before Entering Universities or Colleges

by the General Service List (GSL) and the University Word List (UWL)

WORD LIST	TOKENS/%	TYPES/%	FAMILIES
First 1000 GSL	2468/36.1	1461/28.2	934
Second 1000 GSL	1409/19.2	980/18.6	732
UWL	1002/13.7	814/15.4	535
Not in the lists	2277/31.0	1995/37.8	?????
Total	7336	5280	2201

and 76.2 % in families will be learned, and 28.7% in types and almost a half (46.7%) in families of the UWL will be learned. In total, 3255 out of 5559 types (58.6%) and 2201 out of 2828 families (78.1%) will be learned through junior high and high schools and preparation for the university entrance exams.

What does this result mean? According to Hirsh and Nation (1992), it is necessary for learners to have a vocabulary of around 5000 word families (p.695). Moreover, Laufer (1992) says "the minimal number of words constituting the lexical threshold is 3000 (word families) (p.129)". Here, the total word family number of the three lists is 2828. Therefore, it is necessary for learners to learn more than the three lists to reach the threshold level, not just 78.1% of them. And even though the students memorize all the words they have in the textbooks and the prep book, they may find difficulties in reading unsimplified texts. To reach the level which allows pleasurable reading of unsimplified texts, they have to double their vocabulary knowledge.

TABLE 6

**Percentage of Words Japanese Students Will Possibly Learn
before Entering Universities or Colleges
in the General Service List (GSL) and the University Word List (UWL)**

WORD LIST	TYPES	FAMILIES
First 1000GSL	46.7%	93.5%
Second 1000GSL	36.0%	74.2%
UWL	28.7%	46.2%
Total (5559 types, 2828 families)	58.6% (3255 types)	78.1% (2201 families)

5 CONCLUSION

This study examined the common word lists provided in Japan by comparing the first and second 1000 of the GSL, and UWL. All the three hypotheses were supported. There is a tendency to focus on many low frequency words especially a high school level and in preparation for the university entrance exams, and many high frequency words especially those in the second 1000 GSL and the UWL are not included in the word lists composed by Japanese teachers. The students need to learn more than all these three lists to reach the threshold level, and for pleasurable reading of unsimplified texts, they have to double their vocabulary knowledge.

The results of this study clearly reveal the inefficiency of English language teaching in Japan. The problem exists also in the way we teach vocabulary, as well as in the way of teaching four skills.

Focusing too much on low frequency words may cause reading problems, too. Nation and Waring (1997) state "we need to have clear sensible goals for vocabulary leaning", and say vocabulary frequency lists can be a rational basis (p.17). If the aim of teaching English in Japan is to pass the entrance exams, it can be efficient. However, in terms of reading unsimplified texts, it is inefficient. For better language learning, word frequency should be taken more into consideration in teaching vocabulary.

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