Assessing Vocabulary Levels
at Japanese Universities

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Introduction

As Meara noted in 1987, the field of vocabulary studies is now anything but a neglected area. Still in Japanese universities efforts to coordinate the findings of recent research with classroom teaching have been slow. This paper makes three attempts. It first discusses how teachers can learn which words their students should be studying. Second, it recounts our efforts to determine the vocabulary levels of students in various universities in Japan. Finally, it offers some suggestions on how teachers who wish to teach vocabulary can adjust their curriculum or select the best techniques to suit their students' needs and levels.

Which Words

Much recent research suggests that the methods of learning new words changes as the size of the learner's vocabulary increases. Also being able to evaluate which words a student knows and which words a student has yet to learn is obviously useful for the teacher to know. However, before beginning a discussion of assessment or teaching one must first define and describe vocabulary, which words are being discussed. When discussing this point, the research of Paul Nation (Nation, 1990) proves useful. He categorizes words into four groups: 1) high frequency words; 2) academic words; 3) technical words; 4) low-frequency words. Nation takes his high frequency word list from Michael West's *A General Service List of English Words.* West's list, while it is a little old, is still regarded as one of the best frequency lists available. West judged the words in the list to be those most likely to be encountered by students of English. The list of university words was compiled by Nation himself. It lists the words that Nation believes students in an academic/university setting are most likely to encounter (Nation, 235-239). Technical words are those related to a student's special field of interest. If the student is an engineer the words will involve engineering. Similarly, if the student is a doctor his or her technical words will deal with medicine. The number of items on a technical word list will vary depending on the area, but Nation states that most technical word lists consist of 1,000-2,000 items. The rest of the words in English are low frequency words. Nation of word types and text coverage. We can see that the number of low-frequency words is

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estimates the total English vocabulary at 128,000 words. The following chart shows the breakdown approximately 123,000.

　　The importance of breaking vocabulary down into four groups can be seen clearly, Nation claims, by examining and analyzing English texts. The table below (Nation, 16) shows clearly how vastly more important the 4,800 words in the first three groups are than the 123,200 words in the low frequency group:

NATION'S TABLE WORD TYPES AND TEXT COVERAGE

	Number of Words	Proportion of Text
High-frequency words	2,000	87%
University word list	800	8%
Technical words	2,000	3%
Low-frequency words	123,200	2%
Total	128,000	100%

　　From the information in the chart above, Nation comes to the following conclusion: the 2,000 high-frequency words are of great value to the English learner, and any time spent mastering them will be time well spent. If the learner's language needs require more than the basic 2,000, then any time spent studying and mastering the items on the university word list and/or the items on an appropriate list of technical words will be time well spent. Because low-frequency words are encountered so rarely, it is not worth the time to actively teach those words. Instead of teaching those words individually, it is better to teach students strategies for dealing with them, such as using word roots or context to guess the meaning.

Assessing Students' Vocabulary Size

　　It is commonly stated that Japanese high school students, upon graduation from high school, have a sight recognition vocabulary of 3,000 English words. To test this we decided to administer a vocabulary test to students in five universities in Japan. The universities tested include two public schools, Shizuoka University and the Prefectural University of Kumamoto, thus a national university and a prefectural university. We also tested three private schools in the Nagoya area, Nagoya Women's University, Kinjo Gakuin University and Nanzan University. The details of class size, year and major will be discussed later.

　　Because of the large number of students tested we chose a test written by Nation (Nation, 1990) which had the advantage of being easy to make and mark. The test is divided into five levels. The high-frequency words mentioned above are divided into two levels, the 2,000 word level and the 3,000 word level. The 5,000 word level is on the boundary of high- and low-frequency words. It contains technical words as does the university word level. The 10,000-word level contains low frequency words.

　　Each section of the test consists of six words and three definitions. The complete test for the 2,000 word level is given below. This type of test provides very low chances of guessing correctly.

It tests a large number of words in a short time and according to Nation, it allows students to use whatever knowledge they have of the meaning of the word.

NATION'S VOCABULARY TEST — 2,000 WORD LEVEL

Instructions: This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning.

1. original
2. private
3. royal   _____ complete
4. slow   _____ first
5. sorry   _____ not public
6. total

1. apply
2. elect
3. jump   _____ choose by voting
4. manufacture   _____ become like water
5. melt   _____ make
6. threaten

1. blame
2. hide
3. hit   _____ keep away from sight
4. invite   _____ have a bad effect on something
5. pour   _____ ask
6. spoil

1. accident
2. choice
3. debt   _____ having a high opinion of yourself
4. fortune   _____ something you must pay
5. pride   _____ loud, deep sound
6. roar

1. basket
2. crop
3. flesh   _____ money paid regularly for doing a job
4. salary   _____ heat
5. temperature   _____ meat

6. thread

1. birth
2. dust
3. operation ——————— being born
4. row ——————— game
5. sport ——————— winning
6. victory

When marking the test, one mark is given for each word that is correctly matched with its definition. Scores are recorded for each of the five sections rather than for the whole test. These are more useful than the total score for the test. Nation states that if someone scores 12 or less out of 18 in a section of the test, then it is worth the learner taking time to study words at that level. Chances of guessing are low and students' scores can be taken as a close approximation to the proportion of words in the test that they know. A score of 12 out of 18 indicates that approximately one-third of the words at that level are not known. Thus, there will be at least 200-300 words worth studying at that level. Nation adds the caveat that students whose native language has been strongly influenced by Latin, may be able to match a higher proportion of the university words than the words from the 2,000 and 3,000 level. Thus the test may not be suitable for such learners. Similarly, a number of the 5,000 level words, "coach" and "interior" for example, have become loan words in Japanese and students' ability to match these particular words does not give a true representation of the proportion of words they know at that level.

Assessing Our Data by University

We have included charts showing the results for the test for the 2,000 and 3,000 and 5,000 word levels. The university level test was also given, but results were so uniformly low that including it did not seem necessary. While the charts below include all of the universities surveyed, because of the differences in major, class size, the relatively small sample sizes per university, and differences attributable to statistical variance, etc, it is impossible to compare the different programs at these universities and draw any conclusions. Instead, it is best to consider each program separately and in fact best to consider each student's score individually and follow the suggestions below as to how each student could best study the words at the appropriate level.

Nagoya Women's University (NWU)

The students from Nagoya Women's University in both the first and second year surveys were all English majors. For the first year, fifty students were surveyed. This represents approximately one third of the first year class. The high score on the 2,000 word level was 18 and the low was 6. Twenty students scored 12 or below. The high score at the 3,000 word level was 15 and the low 7. Thirty eight students scored 12 or below. The high score for the 5,000 word level was 14 and the low was zero. Only one student scored above 12 at this level.

In the second year, forty three students were surveyed and this represents about half of the

second year class. The high score on the 2,000 word level was 17 and the low was 9. Fifteen students scored 12 or below. The high score at the 3,000 word level was 17 and the low 5. Thirty students scored 12 or below. The high score for the 5,000 word level was 14 and the low was 4. Only one student scored above 12 at this level.

Nanzan University

The students from Nanzan University in both the first and second year surveys and the repeaters class were all non-English majors. For the first year, twenty-eight students were surveyed. There were 29 classes of approximately this size in the department. The high score for the 2,000 word level was 18 and the low was 12. One student scored 12. The high score at the 3,000 word level was 18 and the low was 8. Five students scored 12 or below at this level. At the 5,000 word level the high score was 14 and the low was 2. Four students scored above 12 at this level.

In the second year, 22 students were surveyed. There were twenty-one classes of approximately this size in this department. The high score for the 2,000 word level was 18 and the low was 12. One student scored 12. The high score at the 3,000 word level was 18 and the low was 11. Just one student scored 12 or below at this level. At the 5,000 word level the high score was 15 and the low was 4. Four students scored above 12 at this level.

In the repeaters class, 16 students were surveyed. There were two classes of approximately this size in the department. The high score for the 2,000 word level was 17 and the low was 7. Three students scored 12 or below at this level. The high score at the 3,000 word level was 16 and the low was 7. Nine students scored 12 or below at this level. At the 5,000 word level the high score was 11 and the low was 3. No students scored above 12 at this level.

Kinjo University

The students from Kinjo University in both the first and second year surveys were all English majors. For the first year, twenty-two students were surveyed. This represents approximately one sixth of the first year class. The high score for the 2,000 word level was 17 and the low was 11. One student scored 12 or below. The high score at the 3,000 word level was 17 and the low was 7. Seven students scored 12 or below at this level. At the 5,000 word level the high score was 11 and the low was 2. No students scored above 12 at this level.

In the second year, twenty-one students were surveyed. This represents approximately one sixth of the second year class. The high score for the 2,000 word level was 18 and the low was 10. Five students scored 12 or below. The high score at the 3,000 word level was 18 and the low was 0. Eight students scored 12 or below at this level. At the 5,000 word level the high score was 14 and the low was 3. One student scored above 12 at this level.

Prefectural University of Kumamoto (PUK)

The students surveyed at PUK all belonged to the General Administration Department, 総合管理学部. In the first year, twenty two students were surveyed. There were twelve classes of approximately this size in the department. The high score for the 2,000 word level was 17 and the low was 9. Four students scored 12 or below at this level. The high score at the 3,000 word level

was 17 and the low was 10. Eight students scored 12 or below at this level. At the 5,000 word level the high score was 13 and the low was 4. Only one student scored above 12 at this level.

In the second year twenty one students were surveyed. There were twelve classes of approximately this size in this department. The high score at the 2,000 level was 17 and the low 11. Only one student scored 12 or lower at this level. The high score at the 3,000 word level was 17 and the low was seven. Six students scored 12 or below at this level. At the 5,000 word level, none of the students scored above twelve. The high score was 11 and the low was 4.

In the third year, twenty four students were surveyed. The high score for the 2,000 word level was 16 and the low was 11. Ten students scored 12 or lower at this level. The high score for the 3,000 word level was 16 and the low was 9. Eight students scored 12 or lower at this level. None of the students scored higher than 12 at the 5,000 word level. The high score was twelve and the low 5.

Shizuoka University

Students from two departments were surveyed at Shizuoka University, the Information Technology Department and Department of Engineering. Both were first year students. For the Engineering Department, fifty three students were surveyed. The high score for the 2,000 word level was 18. Eight students scored 12 or lower at this level. The high score for the 3,000 word level was 18. Twenty eight students scored 12 or lower at this level. At the 5,000 word level the high score was 13. All other students scored 12 or lower at this level.

For the Information Technology Department, forty nine students were surveyed. At the 2,000 word level the high score was 18 and six students scored 12. At the 3,000 word level, the high score was 17 and 14 students scored 12 or lower. At the 5,000 word level, the high score was 13 and forty eight students scored 12 or lower.

General Conclusions

Keeping the above warning about comparing students in different departments in mind, it is still possible to make some general conclusions from these results. First, there is confirmation of what ever teacher in Japan knows. There are widely divergent levels of students within each class. Second, most students' vocabulary is not increasing significantly from year to year. There does seem to be a slight increase between the first and second year in every university and every department, but it is slight and in the case of PUK where we have results from a third year class, attrition seems to have set in and the scores of the third year students are slightly lower than the first and second year students. Third, the claim that high school graduates have a vocabulary of 3,000 words has been tested and while a large number of students do have a sight recognition of 3,000 words a significant portion of students at some universities has not reached this stage of mastery for these high-frequency words.

Guidelines for Learning Vocabulary

For students who have not yet mastered the 2,000 or 3-000-word level words, a great deal of recent research suggests that direct teaching is the most efficient method for helping students learn

as many words in a short a time as possible. While flash cards and study lists may seem out of place in today's communicative classroom, teachers who are doubtful about getting learners to study vocabulary lists should read Nation (1982), which reviews experimental research on list learning. Mikulecky and Nation both suggest that both intensive and extensive reading in graded readers will help students of this level build important contextual associations with the words studied. Students at this level will also benefit from using a vocabulary work book which is appropriate to their level. We recommend the "Words for Students of English" a six book series published by University of Michigan press. Volume 1 of this series requires a 600 word base. Thus volumes 1 and 2 can be described as beginning, 3 and 4 as intermediate, and 5 and 6 as advanced.

Context guessing skills should be taught when students reach the 5,000-word level and students at this level should be reading extensively from a wide variety of materials. Volumes 3 and 4 of the "Words for students of English" series are appropriate for this level.

For students who need to learn words from the academic vocabulary, Nation again suggests direct instruction with flashcards and studying from the university word level list. Learning prefixes and roots is appropriate at this time, also volumes 5 and 6 of the "Words for students of English" series.
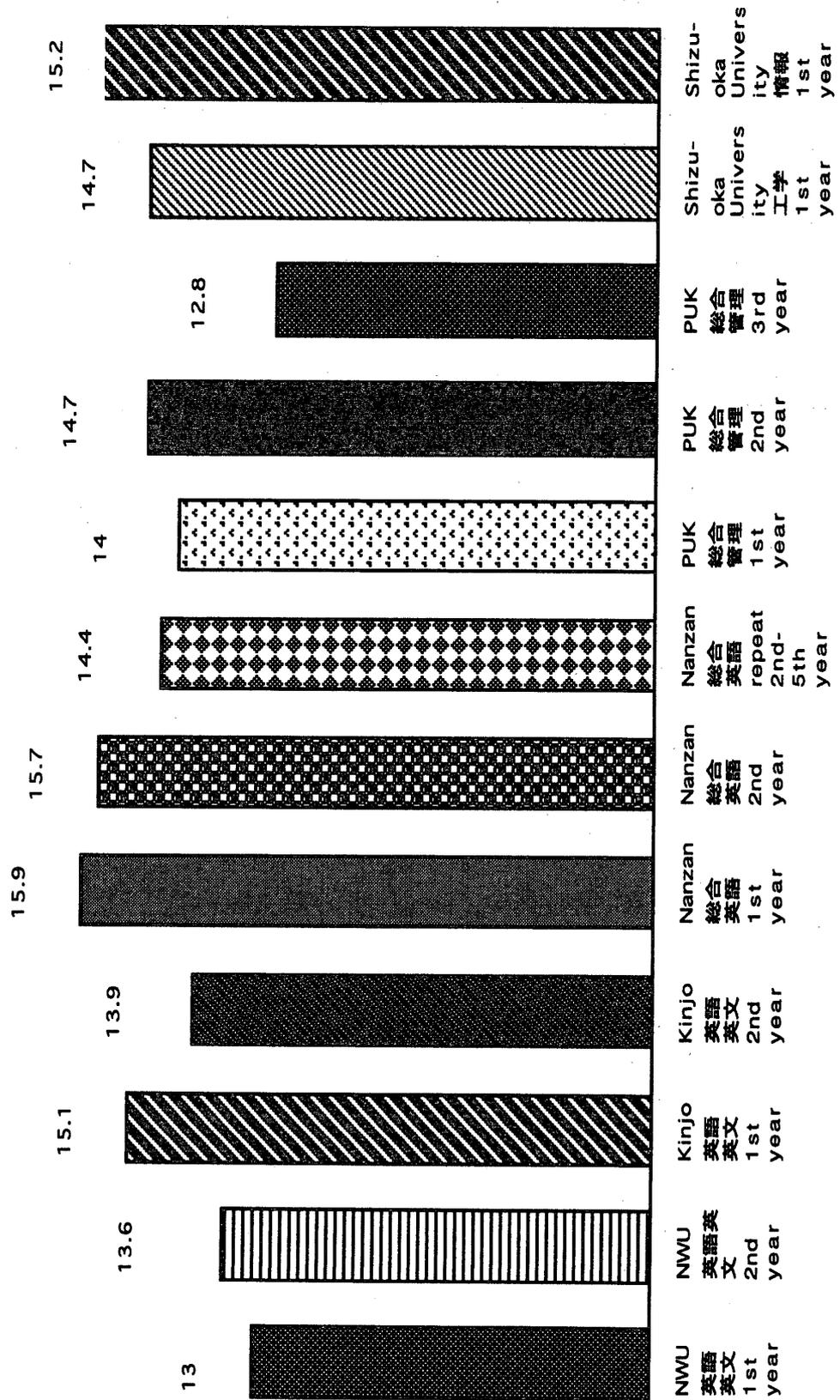
Conclusion

Testing students vocabulary can be valuable diagnostic tool for teachers. By using a test such as Nation's, teachers can quickly judge individual vocabulary levels, strengths and weaknesses. Incorporating vocabulary into a curriculum in such a manner that each student's weak points are addressed while still moving the student forward to meet other language goals as part of a class is a separate and harder to solve problem.
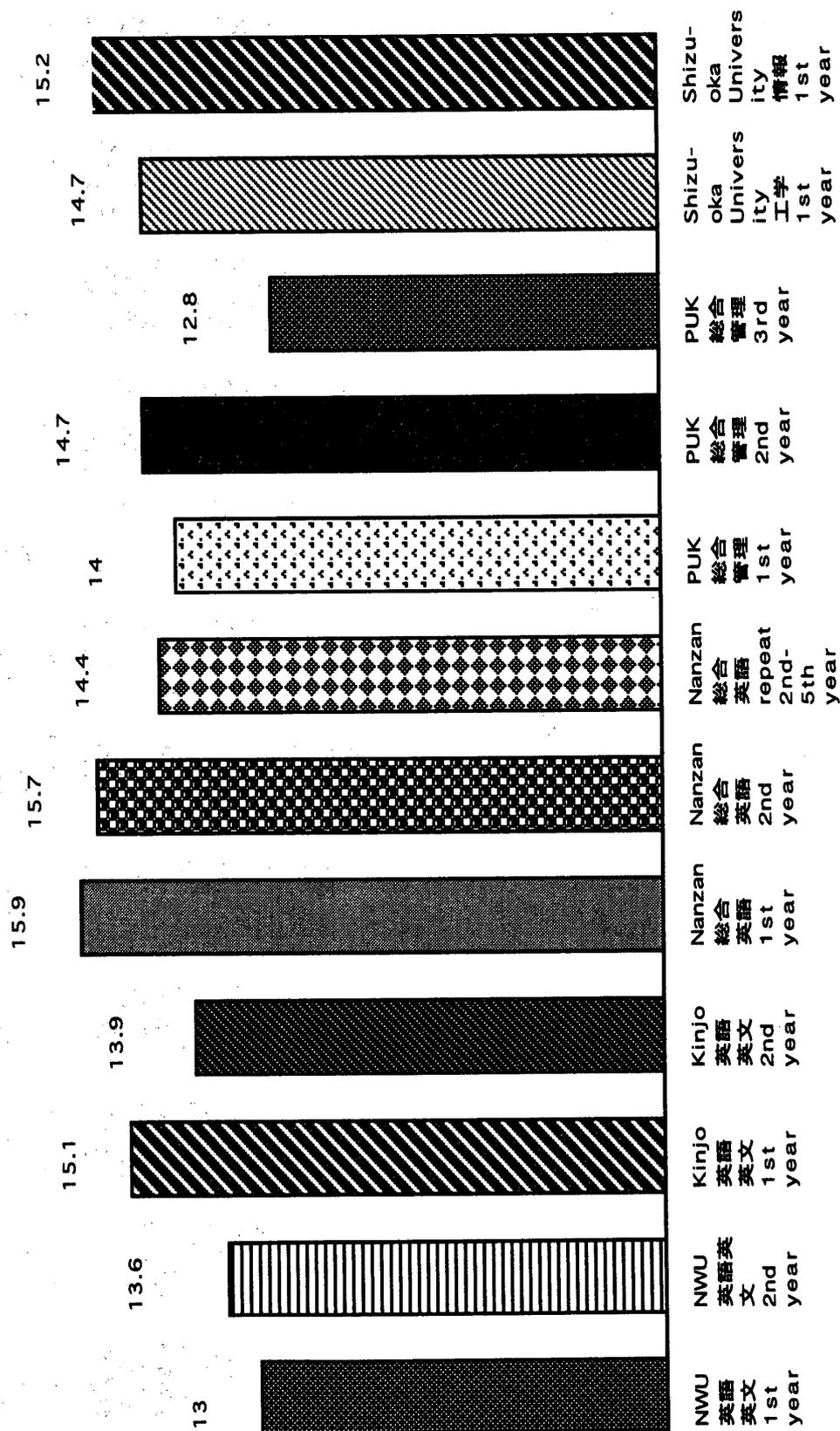
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Appendix I
Average Number Correct of 18,
2,000 Word Level by University

	15.9	15.7	14.4	14	14.7	12.8	14.7	15.2
13	13.6	15.1	13.9					

NWU
英語英
文
1st
year

NWU
英語英
文
2nd
year

Kinjo
英語
英文
1st
year

Kinjo
英語
英文
2nd
year

Nanzan
総合
英語
1st
year

Nanzan
総合
英語
2nd
year

Nanzan
総合
英語
repeat
2nd-
5th
year

PUK
総合
管理
1st
year

PUK
総合
管理
2nd
year

PUK
総合
管理
3rd
year

Shizu-
oka
Univers
ity
工学
1st
year

Shizu-
oka
Univers
ity
情報
1st
year

Average Number Correct of 18, 3,000 Word Level by University

Average Number Correct of 18,
5,000 Word Level by University

NWJ 英語英文 1st year	NWJ 英語英文 2nd year	Kinjo 英語英文 1st year	Kinjo 英語英文 2nd year	Nanzan 総合英語 1st year	Nanzan 総合英語 2nd year	Nanzan 総合英語 repeat 2nd-5th year	PUK 総合管理 1st year	PUK 総合管理 2nd year	PUK 総合管理 3rd year	Shizu-oka University 工学 1st year	Shizu-oka University 情報 1st year
6.5	7.3	7.3	8.2	9.1	9.5	7	8	7.8	8.3	6.3	7.2