Practice Activities with Defining Vocabulary: Making English Dictionary Entries More Accessible

Tae Okada, Kenji Ishihara, Kayoko Kinshi, and Susanna Pavloska

Abstract

A second set of vocabulary instruction materials based on the defining vocabulary of three major English learner's dictionaries, including word lists and practice tests, is proposed to help students review and practice, or when necessary learn the defining vocabulary of major English-English learner's dictionaries. Through taking two rounds of practice tests, students enhance their recognition knowledge of the defining vocabulary while developing an awareness of different aspects of word study. At the same time, the format of the tests is devised to familiarize students with dictionary entries in English.

Introduction

This is the second progress report of our on-going project on developing vocabulary instruction materials,[1] whose purpose is to help university students build recognition knowledge of the defining vocabulary used in monolingual or bilingualized English dictionaries,[2] with the ultimate goal of enabling them to use such dictionaries. From our interaction with hundreds

of students during the course of this research, we believe that acquiring the ability to "study English through English" can well be made to be an inspiring goal when that goal is presented in terms of practical and realistic weekly tasks.

1. The First Stage of the Project

At the outset of the first stage of this project (Matsui et al. 2004), a word list was made with "the defining vocabulary" of three major English dictionaries: *the Oxford Advanced Learner's Dictionary* (6th edition, 2000) (OALD), *the Cambridge International Dictionary of English* (1995) (CIDE), and *the Longman Dictionary of Contemporary English* (2003) (LDCE). The word family members[3] on these three lists were grouped together largely on the basis of the list in the CIDE. By comparing the three resulting lists, 1072 headwords were found to be common to the defining vocabulary in the three dictionaries. In a familiarity survey with 367 first- and second-year university students, 185 of the 1072 words were found to be known to all the students who were surveyed, 395 words to 90 to 99% of them, and 492 words were found to be familiar to less than 90% of those surveyed. To these 492 words were added 8 grammar-related words necessary for dictionary use, and the resulting total of 500 words was subsequently arranged on 10 test sheets of 50 words each and tested on the same group of students as surveyed. The test results showed that on the average, first- and second-year university students knew between 60-76% of the 500 words. In view of the fact that knowledge of 95% or more of the words in a text is generally considered necessary for a reasonably good comprehension of the text (Laufer 1992; Hirsch & Nation 1992; Hu & Nation 2000), an improvement in the students' vocabulary knowledge was considered a prerequisite for the use of monolingual English dictionaries.

As proposed in the concluding section of Matsui et al. (2004), vocabulary review and instruction activities have since been conducted in a number of

first- and second-year English classes using the 10 tests on one sheet each plus another 10 developed later with the same 500 words, so that students are given two rounds of review and practice opportunities with the core defining vocabulary of 500 items.[4] When the test sheets are used as practice material, and not for testing purposes, the relevant word lists are distributed two weeks in advance with minimal advice by the instructor. Students are held responsible for independent study of the words they are to be tested on in two weeks' time. The first set of 10 practice tests is a fill-in-the-blank type with short independent sentences similar to the example sentences in dictionary entries, while the second set of 10 practice sheets asks the student to match a test word with a phrase much like the definitions or explanations given in dictionary entries. Several years of classroom experience with the twenty practice tests has shown that spending some 15 minutes a week on the study of defining vocabulary has proven useful to students in several ways.

   Vocabulary study on a weekly basis with the aim of using monolingual or bilingualized dictionaries seems to offer a sufficiently convincing goal to students,[5] giving them encouragement and the opportunity to review and rehearse basic vocabulary items. Reviewing 50 words per week is a feasible and manageable task. The fact that 60% or more of the words on the list for study are already familiar to them boosts confidence and motivation to study and learn the remaining unknown items.   Relatively high success rates on the practice tests gratify the participants, adding to their "high efficacy, positive attitude, and emotional climate for the subsequent task execution." (Tseng & Schmitt 2008: 369).[6] Since the test format simulates dictionary entries and is refreshingly new to practically all the students, dealing with familiar words in the practice tests is sufficiently stimulating and makes monolingual and especially bilingualized dictionaries seem more accessible.[7] Vocabulary study is a familiar concrete task that offers students an opportunity to make regular independent learning efforts.

Regular focus on vocabulary enhances the awareness of the importance of vocabulary study in general as well as in study efforts with other instruction material.[8]

2. The Current or Second Stage of the Vocabulary Instruction Project

2.1 The Word List for Practice

In the first stage of this project, the words for practice were chosen from those of the defining vocabulary that appear in all three of the learner's dictionaries consulted: OALD, CIDE, and LDCE.   In the current second stage of the project, further word lists for practice were developed with word families that are listed as defining vocabulary in *two* of the three English dictionaries mentioned above: 189 headwords used both in OALD and CIDE, 184 in OALD and LDCE, and 11 in CIDE and LDCE (Table 1), for a total of 384 vocabulary items.   Since the vocabulary practice aims for content words, non-content words such as numerals (e.g., *eleven* and *thousand*), pronouns (e.g., *someone* and *themselves*), and auxiliaries (e.g., *ought to* and *going to*) were deleted from the list.   In addition, words that are already very familiar to students such as *taxi*, *jacket*, and *golf* whose spelling is straightforward, were also excluded.   The resulting 300 words were used for vocabulary practice.

The nature and characteristics of the list of 300 words chosen for vocabulary practice might be best clarified by comparing it with widely known lists. As shown in Table 2, 161 or 53.7% of the 300 practice items are included in West's General Service List of the first and the second thousand most frequent words (West 1953).   In the *JACET 4000 Basic Words* (1993), 249 or 83.0% of the 300 practice items are included (Table 3).   In the *JACET List of 8000 Basic Words* (2003), 289 items (96.3%) are included: 237 (79.0%) in its 1000-4000 sublists and 52 (17.3%) in its 5000-8000 sublists. (See Appendix I-a for more detailed figures.) On the more advanced level, 47 or 15.7% are included in Xue and Nation's University

Table 1: Number of Defining Words Common to Two of the Three Major English Dictionaries.

Defining Vocabulary used in:	
Oxford Advanced Learner's Dictionary and *Cambridge International Dictionary of English*	189 words
Oxford Advanced Learner's Dictionary and *Longman Dictionary of Contemporary English*	184 words
Cambridge International Dictionary of English and *Longman Dictionary of Contemporary English*	11 words
Total	384 words

Table 2: The 300 Words for Practice Compared with the List of the First and Second Thousand Most Frequent Words (West 1953).

General Service List	Words on list	Words for practice	Percentage
First thousand	1007	72	24.0
Second thousand	956	89	29.7
Total	1858*	161	53.7
Not listed	/	139	46.3

*105 words are included both in the first and the second thousand words.

Table 3: The 300 Words for Practice Compared with the List of the JACET 4000 Basic Words (JACET 1993).

JACET 4000	Words on list	Words for practice	Percentage
J-1	531	8	2.7
J-2	510	32	10.7
J-3	976	92	30.7
J-4	873	63	21.0
J-5	1103	54	18.0
Total	3993	249	83.0
Not listed	/	51	17.0

Word List, while 33 or 11.0% occur in Coxhead's New Academic Word List. (See Appendices I-b and I-c for details.)

2.2 Vocabulary Practice Tests

Using the 300 words chosen for practice, two series of five vocabulary practice tests ("VPs" hereafter) on one sheet each are devised with 60 words in each test,[9] of which half, or 30 words are to be chosen as answers (called "test words" hereafter), with the other 30 being distracters. The test words in the first series of five practice test sheets are used as distracters in the second series, and vice versa. Just as in the first stage of our project, the first of the two series of practice tests are a fill-in-the-blank type (Type A) with short independent sentences similar to illustrative example sentences in dictionary entries, while in the second series, the test words are to be matched with synonymous or definitional phrases (Type B). Students are to choose an appropriate item for each blank (Type A) or definitional phrase (Type B) from a list of six words as in the following example:

Series I (Type A): A1-E1

   1. corn 2. dull 3. fine 4. obvious 5. reply 6. sleeve

     (a) I had a cold last week, but I'm [   ] now.

     (b) I didn't enjoy the party yesterday; it was [   ].

     (c) [   ] is an important crop as food and animal feed.

Series II (Type B): A2-E2

   1. corn 2. dull 3. fine 4. obvious 5. reply 6. sleeve

     (a) to answer; an answer

     (b) easy to understand or see

     (c) the part of a jacket, shirt, etc. that covers your arm

Each practice sheet contains ten such groups of three questions each with six words to choose from, i.e., there are 30 questions covering 60 vocabulary

items on every practice sheet.

In writing the questions, two other dictionaries, the *Cambridge Learner's Dictionary: Semi-bilingual Version* (2004) and *Word Power: Fully-bilingual Dictionary* (2002)[10] were consulted in addition to the three dictionaries already referred to earlier. Because of their user-friendliness, these semi-bilingual or fully bilingualized dictionaries are recommended for students' independent study.[11] The meaning listed first in dictionary entries is the one adopted in the practice sheets. Also, where there are homonyms, the one that is listed first is used in the practice tests. The short sentences in Type A and definitional phrases in Type B were in some cases adopted from dictionaries, in other cases modified for various practical reasons, and in yet other instances original sentences or phrases were written particularly with clarity, accuracy, idiomaticity, and appropriateness in mind. The length of the question sentences and definitional phrases as well as the frequency of the words used and appropriateness of the content or topic of the sentences were also taken into consideration.[12]

The two series of VPs were first used with 98 students in three first- and second-year university EFL classes during the second semester of the academic year 2007. The resulting scores were analyzed and used to revise the questions for further clarity and practicality. The revised version was used during the first semester, 2008 in first- and second-year English classes; the test results were once again reflected in the second revision. The existing VPs are the fully revised third version.

2.3 Procedure

An alphabetical list of 60 words for study was distributed two weeks before a VP was used in class during the autumn semester, 2007 and spring semester, 2008. Instruction or advice was offered if difficulty with any of the items on the list, such as polysemy or homonymy, was predictable at the time of distribution. In the VP to be given in two weeks' time, half of the 60

words were used as test words, and the other 30 were distracters.

Participants were allowed to work for 10-15 minutes on the 30 practice questions on each VP. Immediately afterward, the participants corrected each other's responses while the correct answers were given by the instructor, a procedure that took some 5 minutes of class time. The practice sheets were then collected and checked later by the instructor to make a list of the 5-10 items with lowest scores, namely those with which most participants had difficulty. Such words were discussed in class the next week with explanations and illustrative sentences added by the instructor.

After five weeks of this procedure using the first series of VPs, the second series of VPs, based on the same five word lists of 60 items as the first series, was administered. This time the practice task required students to match test words with definitional phrases. Since all 30 of the test words were used as distracters in the first series, both the correct answers and items with the lowest scores were necessarily different from those in the first series.[13]

2.4 Score Improvement

During spring semester, 2008, 178 students in four first- and second-year English classes worked with the two series of five VPs over a 10-week period. As expected, there was an overall score improvement in the second series (i.e., A2-E2) over the first series (i.e., A1-E1), the average score rising from 25.46 to 26.75 (Table 4). As shown in Figure 1, 38.15% of the participants responded correctly to 28 or more items out of 30 in the first series, while 50.60% did so in the second series; if the percentages of those who responded correctly to 26 and 27 items on average are added, the ratio is 58.38% in the first series, and 75.60% in the second series.
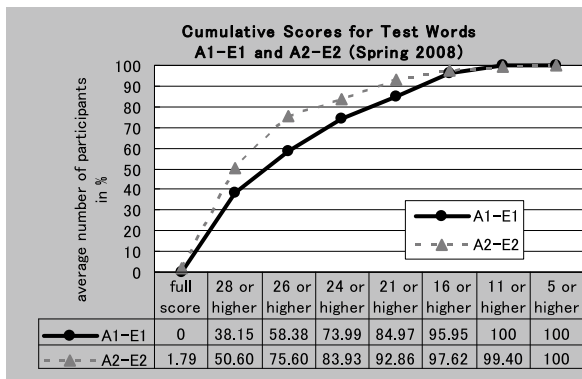
The format of the practice questions requires choosing 3 words as answers from a list of 6, so that correctly responding to questions means not only choosing the 3 right test words, but also avoiding or eliminating the 3

distracters, a process that involves two types of recognition ability: active choice and eliminatory recognition.   Therefore, the average scores for the test words and distracters were calculated separately and compared as shown in Figures 2 and 3 for the first and second series.   Comparing these two figures, an overall score improvement in the second series A2-E2 (Figure 3) over the first series A1-E1 (Figure 2) is once again notable.[14]   It is also to be noted that in both series the scores are higher for the distracters (representing eliminatory recognition ability) than those for the test words (representing active choice ability).

Table 4: Average Scores for the First and Second Series of Vocabulary Practice.
   (p < .001)

Average VP scores	First series A1-E1	Second series A2-E2
Number of participants	174	168
Highest score	29.8	30
Lowest score	12	10
Average of 5 VPs	25.46	26.75
Standard deviation	4.13	3.66
Correlation coefficient between the average scores of the two series: 0.8101		

Figure 1: Average Cumulative Scores of 178 Participants for 30 Test Words in the First Series (A1 - E1) and Second Series (A2 - E2) of Vocabulary Practice.

	full score	28 or higher	26 or higher	24 or higher	21 or higher	16 or higher	11 or higher	5 or higher
A1–E1	0	38.15	58.38	73.99	84.97	95.95	100	100
A2–E2	1.79	50.60	75.60	83.93	92.86	97.62	99.40	100

Kinshi (2008) noted the same type of score differential between the test words and distracters when she used the twenty-sheet series developed in the first stage of this project (See Section 1 above.), advancing the view that eliminatory recognition of distracters on the one hand and active choice of test words on the other might be considered as two distinct processes of vocabulary recognition that take place more or less concurrently. She argues that since the score is consistently higher for distracters than for test words, recognition for active choice is a more challenging task, requiring a higher-level recognition ability than that for elimination of distracters. Based on that distinction between the two types of recognition ability, she points out that the scores for test words in the second series are close to those for the distracters in the first series. In her view, repeated practice makes it possible for recognition ability for elimination to develop or deepen into recognition knowledge for active choice.

Figures 2 and 3: Average Percentages of Participants in 8 Score Brackets for the First
Series (A1-E1) and Second Series (A2-E2) of Vocabulary Practice.
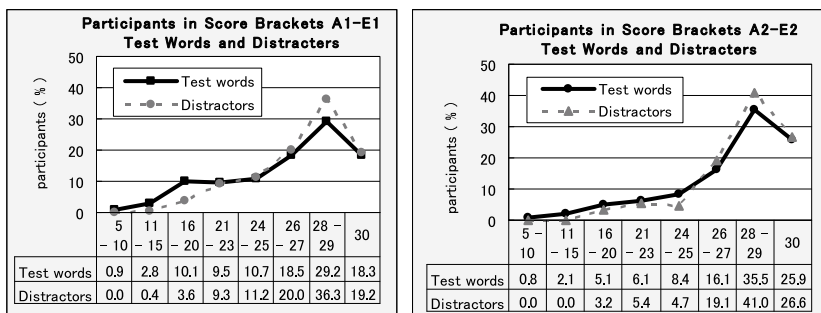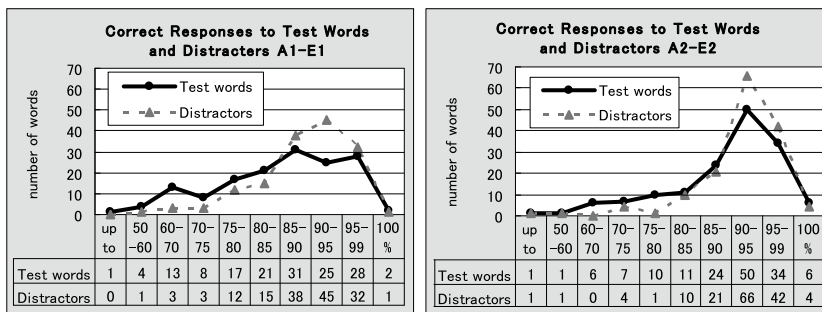

In our VP data from spring, 2008 (Figures 2 and 3), the percentage of participants in the two brackets of 28-29 and 30 points is 55.5% (36.3 + 19.2) for the distracters in the first series, compared to 61.4% (35.5 + 25.9) for the same words that appeared as test words in the second series. It might well be assumed, as Kinshi (2008) did, that repeated practice consolidated

eliminatory recognition ability to develop it into active choice ability.[15]

The same test results could also be reviewed from the perspective of vocabulary items instead of participants' scores. The percentages of correct responses to the 150 test words and 150 distracters in each series are calculated separately as shown in Figures 4 and 5. Comparing the two figures, score improvement is clear in the second series of practice both for test words and distracters. In the first series, the largest number of distracters (45) was correctly eliminated by the largest percentage of participants (90-95%). In the second series, where the test words were the distracters in the first series, 50 test words had correct responses by the same percentage (90-95%) of the participants. In short, correct responses were made on 5 more items as test words in the second series than as distracters in the first series. This fact might once again be interpreted as Kinshi (2008) did as evidence of eliminatory recognition ability developing into active choice ability.

Figures 4 and 5: Number of Test Words and Distracters Correctly Responded to in the First and Second Series of Vocabulary Practice.

Correct Responses to Test Words and Distracters A1–E1

	up to	50 –60	60– 70	70– 75	75– 80	80– 85	85– 90	90– 95	95– 99	100 %
Test words	1	4	13	8	17	21	31	25	28	2
Distracters	0	1	3	3	12	15	38	45	32	1

Correct Responses to Test Words and Distractors A2–E2

	up to	50 –60	60– 70	70– 75	75– 80	80– 85	85– 90	90– 95	95– 99	100 %
Test words	1	1	6	7	10	11	24	50	34	6
Distracters	1	1	0	4	1	10	21	66	42	4

3. VPs and C-Test

3.1 The C-Test as a Test of Controlled Active Use of Words

As part of a project for exploring possibilities of developing proficiency

tests, the English Language Department of the Institute for Language and Culture administered a "C-Test" to a number of first- and second-year English classes on campus during spring semester, 2008. The test used for the project was one of the two versions developed by the Writing Research Group of the JACET Kansai Chapter (1995, 1998).[16] The test contains four short passages of 48-65 words in length where the last half of every other word is deleted regardless of its part of speech such as the underlined letters in "Take off your shoes when you enter a Japanese house."[17] The test taker must supply the missing latter half (or half plus one letter) of each test word. Thus, the C-Test format measures "controlled productive ability" in much the same way as the Levels Test of Productive Vocabulary (LTPV) (Laufer & Nation 1999) but within the context of the short passages provided.

According to the framework of vocabulary assessment proposed by Read & Chapelle (2001), the C-Test is "a more integrated measure" (p. 2) where there is a "clear need to make use of contextual clues" (p. 6). In contrast, the VPs would be categorized as a "relatively decontextualized item type" (p. 2) where context is "largely eliminated" (p. 8). Thus, VPs and the C-Test differ both in their format and in the vocabulary abilities being tested.

Since the C-Test might well reflect active use ability, as opposed to the VPs which test recognition ability, the scores of these two different types of tests can represent complementary aspects of vocabulary knowledge. Thus, a comparison between the two sets of data may not only be useful as different ways of assessing the vocabulary knowledge of the participants, but also helpful in suggesting avenues for further vocabulary instruction and the development of instructional materials.

While the VPs focus on content words, the 50 test items of the C-Test include function words (i.e., prepositions, pronouns, conjunctions, auxiliaries, and articles) as well as content words (i.e., nouns, verbs, adjectives, and adverbs). In general, content words form large, open lexical classes of words, open in the sense that any number of new words or new

meanings can be added as times and circumstances vary. For L2 learners, the sheer number of content words presents a challenge. Specifically, for a blank demanding a content word, the choice must be made out of a much larger pool of candidates than for a blank calling for a function word. In addition, for the correct choice of a content word, a larger section of context must be taken into consideration both in meaning and grammar. Besides, after arriving at the right target word, content words still present a greater spelling challenge than function words. In comparison, function words or structure words comprise relatively small, closed classes of vocabulary items: they are relatively limited in number, short in form, high in frequency and of a nature that new words are not easily added.[18] In most cases, spelling is also less of a challenge than for content words. Thus, for a fair comparison of C-Test scores with those of the VPs, the C-Test scores were computed separately for content words and for function words.

3.2 Comparison of VP Scores with the C-Test Results

In the English classes where the VPs were used, the average C-Test scores as a pre-test was 53.6 out of 100 points and as a post-test, 63.8; the correlation coefficients between these average scores and those of the ten VPs were 0.59 and 0.68 for the pre- and post-tests respectively (Table 5). Relatively low correlation figures were expected due to the differences in the test format as well as in the test conditions. Aside from the fact that the C-Test and the VPs differ in type, as mentioned in the preceding section, the VP participants were encouraged to study the test items and prepare for the VPs, whereas for the C-Test no preparation was allowed, although by the time of the post-test, students had a general idea about the test, which can be expected to have favorably influenced their performance.

Figure 6 summarizes the percentages of correct responses to the 26 content words and the 24 function words of the C-Test as pre-test and post-test, showing the items with lowest scores on the left end of the figure to

those with highest scores on the right end where every dot represents two test items. While a general improvement is visible in the post-test over the pre-test, the function words have a consistently higher percentage of correct responses than do the content words. This can be interpreted as reflecting the more challenging nature of the content words as mentioned in the preceding section (Section 3.1).

Table 5: Average Scores of the Pre- and Post-C-Tests. ($p < .001$)

April and July 2008	Pre-C-Test	Post-C-Test
Number of participants	165	149
Highest score	86	98
Lowest score	20	20
Average score	53.59	63.84
Standard deviation	14.01	15.61
Correlation coefficients with VP average	0.59	0.68
Correlation coefficient between Pre- and Post-C-Tests: 0.8141		

Figure 6: Percentage of Correct Responses to Content Words and Function Words in C-Test Conducted in April and July 2008. (Each dot in the figure represents two test items.)
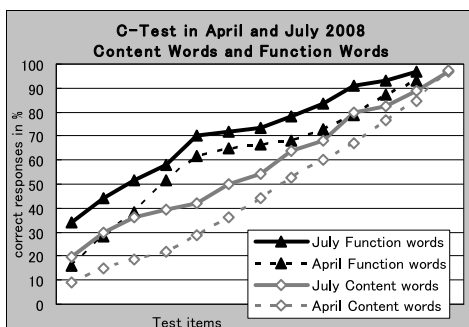
Figures 7 and 8: Comparison of Pre- and Post-C-Test Scores with VP Scores, with the First Series of VPs in Figure 7, and with the Second Series of VPs in Figure 8. (Each dot represents 2 test items for C-Test scores, and 10 test items for VPs.)
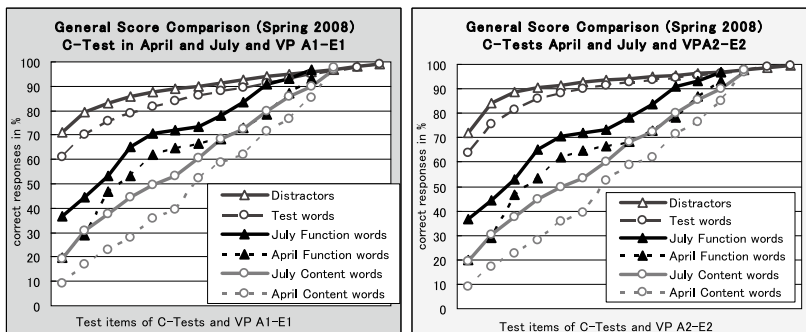
Compared with the relatively low scores for the controlled productive ability of the content words in the C-Tests, the recognition scores of the VPs are markedly higher as illustrated in Figures 7 and 8. (See Appendix III for the corresponding table of scores.) Regarding the discrepancy between vocabulary recognition and active use abilities, Morinaga (2008 a, b) presents highly relevant data collected from much the same type of student group as the VP participants. Using the two widely known standardized tests, the Vocabulary Levels Test (VLT) (Schmitt et al. 2001) and the Levels Test of Productive Vocabulary (LTPV) (Laufer & Nation 1999), he obtained systematic data from 312 first- and second-year Japanese EFL students at two universities in the Kyoto area. For that group of students, the average score for recognition (VLT) was at the 3832.25 word level (standard deviation 1093.857), while for active use (LTPV) it was at the 1366.63 word level (standard deviation 654.665). Morinaga collected data again in the academic year 2008 from 319 first- and second-year EFL students of the same two universities and obtained an average word level of 3,857 for VLT (standard deviation 1069.151). In one of the two universities, 130 students also participated in LTPV for which the average word level was 1636

(standard deviation 732.837), the average VLT for this group being the 4,448 word level (standard deviation 1142.749) (Morinaga 2009a, b). Thus, his test results in both years show a clear gap between recognition knowledge (VLT) and productive ability (LTPV) (Figure 9). In addition, while the correlation coefficients between recognition and active use scores are relatively high, 0.774 in the data for 2007 and 0.676 for 2008, the gap between them is larger in the higher score brackets than in the lower score brackets as illustrated in Figure 10.

Figures 9 and 10: Average Scores of Six Word-Level Brackets for Recognition Knowledge (Vocabulary Levels Test) and Controlled Productive Ability (Levels Test of Productive Vocabulary). Figure 9 shows cumulative percentages of participants in score brackets. Figure 10 compares average scores of recognition knowledge in score brackets and corresponding controlled productive ability scores (from the data in Morinaga 2008a).
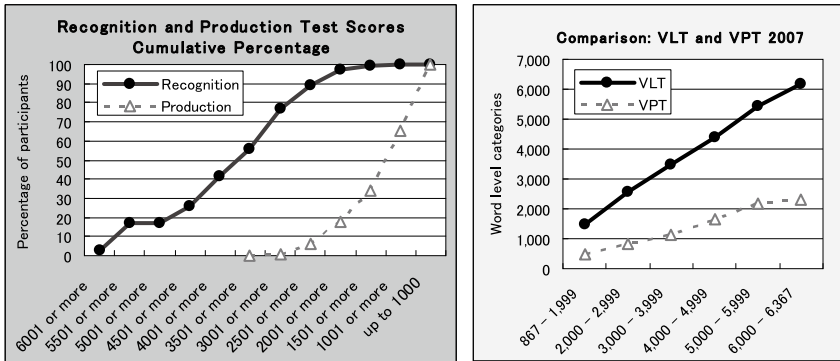
Laufer (1998), too, shows that (1) "those who have a higher passive vocabulary size are also those who have a higher controlled active vocabulary size," and at the same time, (2) "the higher one's passive vocabulary size, the wider the gap between it and the controlled active vocabulary" (p. 264). She also states that university students of engineering in an EFL course, who are "much less motivated than high school learners preparing for matriculation exams," acquired 300 word families in one

semester, stressing the fact that the growth of recognition ability could outpace that of productive ability (p. 265).[19]

4. Vocabulary Knowledge for Reading Dictionary Entries

4.1 Vocabulary Size and Depth[20]

Vocabulary knowledge is no doubt one of the most important factors for reading comprehension (e.g., Anderson 2000; Hiebert & Kamil 2005; Morinaga 2008a; Nation 1990, 2001; Schmitt 2000), and reading dictionary entries cannot be an exception. Hu and Nation (2000) studied the comprehensibility of a fiction text, concluding that "even with this reasonably easy text, most learners would need around 98% coverage [of known words] to gain *adequate* unassisted comprehension of the text (our italics)," adding that "other text types, particularly newspapers and academic texts, would place greater demands on the reader [vis-à-vis vocabulary knowledge]" (p. 422). If that is the case, comprehension of English dictionary entries would require knowledge of nearly 100% of the defining vocabulary. Besides, for effective use of the information offered in dictionary entries, more than "adequate" comprehension of entries would be necessary, which, in turn, must rely on a greater ratio of known words than 98% in the relevant dictionary entries.

Based on the data presented by Morinaga (2008a, b, 2009a, b), it is safe to assume that the majority of students who took our VPs already know most of the defining vocabulary items and need only to review them. A small number of specific items, however, would need to be newly learned. Thus, with weekly vocabulary practice, it is feasible for most participants to learn practically 100% of the defining vocabulary. Moreover, repeated encounters with known words in the VPs are useful in view of the fact that vocabulary knowledge is known to develop or deepen "incrementally" with a number of encounters (Horst et al. 1998; Nation & Wang 1999; Schmitt 1998, 2000, esp., 117ff.; Waring & Takaki 2003; Pigada & Schmitt 2006;

Webb 2007).[21]

Particularly when reading English dictionary entries, the degree of knowledge of the known words needs to be sufficiently robust so that the words can be "accessed quickly and easily" (Nagy 2005: 33) while reading through the lines. Only with the ability of "automatic word recognition" (Hulstijn 2001) to retrieve word meanings efficiently and effortlessly from memory storage, can dictionary readers concentrate their attention on the information offered in the entry, and thus make use of dictionary entries for purposes of text comprehension.

4.2 Using Dictionaries

Since reading in L1 is already a "metalinguistically demanding task" (Nagy 2005: 32), reading comprehension in L2 is even more of a metalinguistic challenge. Besides, in comparison to using glosses, reading dictionary entries and applying their content to reading passages requires even more complex metalinguistic ability. Glosses are written to fill the need in specific contexts, whereas dictionary explanations are written to suit as wide a range of contexts as possible, with the onus being on the dictionary user to pick out the relevant information for a given context. For many first- and second-year university students who are used to studying with glosses, acquiring dictionary skills is a relatively new challenge. Comprehending L2 dictionary entries for lexical information and applying that information to an L2 text can seem to them to be a daunting task. Therefore, it is useful to draw students' attention to dictionary entries and develop their dictionary skills as a whole by way of introducing English dictionary entries through practice materials (Waring 2001; Blanchowicz et al. 2006).

Despite the difficulties involved, using a dictionary, whether it be bilingual, bilingualized or monolingual, is unavoidable for all students. Hulstijn (2001), for instance, states that "in the literature on L2 learning a

receptive knowledge of 5,000 base words [i.e., word families] is generally considered to be a minimal learning target with respect to the comprehension of the main points of non subject-specific texts." (Hulstijn 2001: 262). Besides, if the students' vocabulary size is below the level of 10,000 word families, which Tseng and Schmitt (2008) consider is "the state of most ESL learners," instruction is recommended to be based on the principle of "the more vocabulary, the better." (Tseng & Schmitt 2008: 366).[22] On the basis of Morinaga's data, most VP participants' vocabulary size can be assumed to be somewhere between 3,000 and 5,000 words, and thus they cannot do without dictionaries in L2 reading. Most of them naturally rely heavily on bilingual dictionaries, which are the most efficient aids for vocabulary and text comprehension (Laufer & Hadar 1997; Folse 2004; Waring 2001). However, training in dictionary use, necessary and highly beneficial for all learners, might well be more profitably offered through getting them to recognize the characteristics and advantages of using dictionary entries in English.[23]

4.3 Incidental Vocabulary Learning through Reading

For developing vocabulary knowledge both in size and depth, most researchers recommend (1) a vast amount of reading with a high density of known words supplemented by (2) vocabulary-focused study activities (e.g., Hunt & Beglar 2005; Min 2008; Pino-Silva 1993; Schmitt 2000; Sökmen 1997).

Regarding vocabulary development through extensive reading, the researchers' views are polarized. Krashen (1989), on the one side, claims that "competence in spelling and vocabulary is most efficiently attained by *comprehensible input* in the form of reading . . . . (our italics)" (Krashen 1989: 440); even with the concession that "intentional Read and Test subjects do consistently better in vocabulary and spelling" (p. 447b), his view is that the "extra time and effort [that] went into [vocabulary] skill

building . . . would have been better spent reading" (p. 448a). The
"comprehensible input" or "i plus 1" (Krashen 1982; 1985) in terms of the
minimum ratio of unknown words in running texts varies among researchers
from 2% (Hu & Nation 2000; Hirsch & Nation 1992) to 5% (Laufer 1992).

On the other side of the spectrum, Hulstijn (2003) criticizes the
vocabulary-acquisition-through-reading argument for being a "default
argument" (Hulstijn 2003: 362) because it is based on the view that native
speakers cannot have acquired most of their vast vocabularies[24] only through
explicit instruction (Hulstijn 2001: 272; 2003: 362f.). Assessing numerous
research results, Hulstijn (2001) concludes that "encountering new words in
context and extensive reading, as advocated in current L1 and L2 pedagogy,
are neither necessary nor sufficient for efficient vocabulary expansion" (p.
285).[25] He advocates "intentional learning" with a number of repeated
"rehearsals" at the "i minus 1" level for fostering fluency, automatic access,
and speed.

A number of factors have been discerned that reduce efficiency in
incidental vocabulary learning through reading: (1) the readers often ignore
unknown words instead of trying to study and learn them because their
primary purpose is reasonably good text comprehension and not vocabulary
learning per se (Hulstijn et al. 1996); (2) the more proficient learners learn
more words from reading (the "rich-get-richer" paradox), leaving the less
proficient benefiting less (Horst et al. 1998); (3) where context is rich
enough for correct inferencing, the target words require no inferencing or
might as well be ignored; where less context clues are available, inferencing
is ineffective (the "context-inference" paradox);[26] besides, (4) inferencing in
general tends to lead to incorrect results (Hulstijn et al. 1996; Laufer & Yano
2001; Folse 2004)[27]; (5) the higher the proficiency level, the more accurate
inferencing, leaving the less proficient with the results of incorrect
inferencing (Kaivanpanah & Alavi 2008a, b); (6) target words often fail to
occur with sufficient frequency (Horst et al. 1998; Nation & Wang 1999);

and finally, (7) learners resist the use of dictionaries (Laufer & Yano 2001; Hulstijn et al. 1996).

4.4 Reading Dictionary Entries in English

Whether or how much "incidental" learning of words can be realistically expected through reading, none of the researchers deny the good effects of large amounts of reading. Especially when the text contains a high proportion of known words, extensive reading provides the learner with opportunities for "rehearsals of 'old input' for the benefit of training automaticity," for which repeated encounters in varied contexts are necessary (Hulstijn 2001: 282; Segalowitz 2003).

When considered as reading material for vocabulary building, dictionary entries excel in various ways. For one thing, readers are necessarily focused on vocabulary, so their attention and awareness are guaranteed. Secondly, the density of unknown target words is necessarily high. Thirdly, dictionary entries are written in such a way that readers are led toward the correct inferencing of the target word, not only in meaning but in other aspects as well.

As for students' views on dictionaries, Schmitt (1997) presents data on 600 Japanese EFL students' learning strategies including the use of dictionaries. Interestingly, his respondents placed monolingual dictionaries in second place on "the helpfulness ratings" (1035/3000 points) only after bilingual dictionaries (1669/3000 points) despite the fact that only 37% of them reported actually using monolingual dictionaries. Schmitt concludes that "learners seem to realize their [i.e., of monolingual dictionaries] potential utility and might be more willing than teachers suspect to try a good monolingual learners' dictionary" (Schmitt 1997: 223). This, too, suggests a need for introducing English entries in vocabulary instruction.

4.5 Vocabulary-Focused Tasks

Hulstijn, Hollander and Greidanus (1996), comparing a group of learners who learned new words from marginal glosses with another group who were allowed to use dictionaries, revealed that the dictionary group learned and retained the words they looked up in a dictionary better than those who used marginal glosses. Although learners tend to resist it, dictionary use is recommended by most researchers (Hulstijn et al. 1996; Hunt & Beglar 2005; Kaivanpanah & Alavi 2008a, b) for its good effect on greater improvement of accurate word knowledge because of increased active "involvement" (Tseng & Schmitt 2008) or "elaboration" (Hulstijn 2001) on the part of the learner.

Research results also prove that "in L2 pedagogy it is important to *design tasks* that focus learners' attention on vocabulary learning and to make them aware of the importance of efficient vocabulary learning strategies (our italics)" (Hulstijn 2001: 274), and especially, that both "attention *and* awareness" (italics by Hulstijn) are required. "Learners who do not actively engage the word will not learn the word" (Folse 2004: 111). The vocabulary practice devices proposed in the current project can serve as one type of useful task. They can also trigger a number of other vocabulary-focused tasks, many of them quite simple and not too time-consuming that supplement the VPs with elaborative activities.[28]

Regarding vocabulary awareness, participants might be informed of different aspects of vocabulary study through the use of VPs, such as the importance of making independent study efforts, consolidating their knowledge of the basic words represented by the defining vocabulary, and learning to use dictionaries effectively. VPs could both stimulate "deliberate rehearsal activities" and provide the "automaticity training" recommended by researchers (e.g., Hulstijn 2001; Nation 2001; Read 2000; Schmitt 2000).[29]

5. Evaluation of VPs by Participants

The participants' evaluation of learning and practice activities using the VP lists and test sheets was generally positive. As shown in Figure 11, more than 61% of the participants evaluated them either as "useful (degree 4: 35.03%)" or "very useful (degree 5: 26.75%)," while approximately 42% found them either "interesting (29.30%)" or "very interesting (12.74%)." Reflecting the fact that the VPs are intended for the rehearsal and consolidation of known words as well as acquisition of unknown words, less than a quarter of participants evaluated them as "challenging (17.20%)" or "very challenging (7.64%)," hopefully contributing to the building of confidence in their vocabulary competence leading up to the use of dictionary entries in English.

Judging from the comments offered by students, the "usefulness" evaluation seems to stem from their encountering some new words or new aspects of already familiar but less well known words, so that their knowledge of the defining vocabulary was reinforced. A number of participants indicated that the VPs were a new type of practice for them and expressed a desire for further vocabulary practice of a similar type,

Figure 11: Percentage of Participants Evaluating Vocabulary Practice Activities in a 5-Point Scale as (1) Useful, (2) Interesting, and (3) Challenging.

	1	2	3	4	5
Useful	1.91	8.92	27.39	35.03	26.75
Interesting	6.37	12.10	39.49	29.30	12.74
Challenging	5.73	27.39	42.04	17.20	7.64
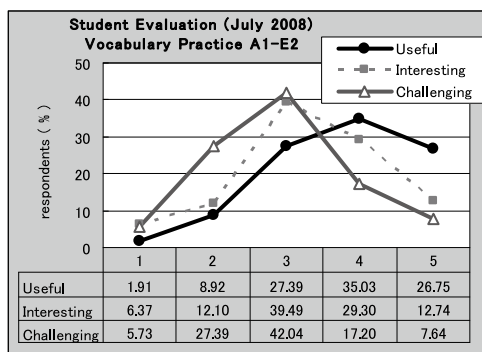
especially with words at more advanced levels, which is a clear sign of enhanced interest and motivation.

Thus, the VPs can stimulate students' interest in vocabulary study; that interest might well be usefully exploited by various other vocabulary-related exercises based on reading or listening materials. Both from the short-term and long-term perspective, part of the university EFL class hour should be devoted to helping learners focus on realistic goals in regard to building vocabulary, developing and using effective learning strategies, and participating in concrete review and practice procedures for vocabulary growth. Given the present levels of vocabulary knowledge, all learners currently enrolled in first- and second-year English classes need weekly class activities to support their vocabulary study and learning efforts. From this viewpoint, there is an obvious need for vocabulary-related class activities.

6. Concluding Remarks

In order to use dictionary entries in English with effect and efficiency, students must have:

1. Recognition knowledge of all or nearly all of the defining vocabulary;
2. Reading comprehension ability of dictionary entries including definitions, explanations, and example sentences; and
3. Skills in applying the content of dictionary entries to relevant texts.

The current project proposes devices for systematic study and practice to equip participants with the necessary recognition knowledge of a major part of the defining vocabulary. At the same time, these practice devices attempt to familiarize students with the characteristics of dictionary entries in English. Once students develop confidence in their vocabulary knowledge and their ability to comprehend entries, they will more concretely realize the

advantages of using monolingual or bilingualized dictionaries. Dictionary entries in English will then seem less formidable and possibly even advantageous to them. Besides, given the incremental nature of vocabulary acquisition, repeated involvement with defining vocabulary through a set of practice devices helps consolidate students' knowledge of basic vocabulary items in English. They will thus be able to take steps toward fulfilling their desire to benefit from dictionary entries in English, the potential utility of which they already seem to know as Schmitt's data suggest (Schmitt 1997).

The current practice devices deal only with recognition ability. As is clear from the C-Test results as well as Morinaga's data, the cleavage between recognition and production abilities is an important problem that remains to be addressed. Future devices will have to include a task of some type to deal with that aspect of vocabulary practice as well.

Notes

1 See Matsui, Okada, Ishihara & Pavloska (2004).

2 Entries in bilingualized dictionaries include explanations in L1 as well as L2. Folse (2004), denouncing the "myth" that "the best dictionary for second language learners is a monolingual dictionary," advocates the use of bilingualized dictionaries as the "most definitely user-friendly" because they "provide the most information appealing

to a wide variety of individual learner differences." (Folse 2004: 126).

3 For a description of word families, see Bauer & Nation (1993).

4 For a detailed report on the use of all the 20 test sheets, see Kinshi (2008).

5 See Section 4.4 below on students' views on using monolingual dictionaries.

6 Tseng and Schmitt (2008) propose a cyclic model of vocabulary learning stages in which success in study experiences feeds into motivation for the next stage of learning efforts.

7 See Section 5 for student evaluation.

8 See Section 5 below for more on students' views on vocabulary practice.

9 The choice of dividing the 300 words into five practice tests with 60 words each was made solely for practical reasons. Based on the results of a familiarity survey which indicated that between 97 and 123 words out of the 300 were familiar to 80% or more of the students, and that between 43 and 72 words were familiar to 90% or more students (Kinshi 2009), independent study of 60 words per week was judged to be a feasible task for them. Also, two rounds of 5 practice tests (i.e., 10) were considered likely to suit one semester's class schedule.

10 The term "fully-bilingual" in the title of the dictionary refers to the fact that entire entries are translated into L1 including definitions/paraphrases, explanations, and illustrative example sentences, while "semi-bilingual" indicates that only the lexical equivalent of the L2 entry word is added in L1 at the end of the entry. In the present paper, the term "bilingual" is used to refer to English-Japanese dictionaries in which entire entries other than the entry words themselves are written in L1, while the term "bilingualized" is applied to both semi- and fully-bilingual dictionaries.

11 For a discussion of the advantages and disadvantages of bilingual, monolingual and bilingualized dictionaries, see for instance, Folse (2004), Hunt & Beglar (2005), Laufer & Hadar (1997).

12 See Appendix II for the number of practice test questions that are either entirely or partially based on dictionaries.

13 The low-scoring words in either series can be rehearsed and tested one additional time as part of a midterm or final exam.

14 The largest percentage of the participants (i.e., 29.2%), for instance, scored either 28 or 29 out of 30 in the first series, and that figure rose to 35.5% in the second series.

15 This might well be one of the phases of "incremental" development of vocabulary knowledge (Nation 2001; Schmitt 2000), although further investigation is necessary to verify whether and to what extent the score differences reflect improvement in vocabulary knowledge rather than in test-taking skills.

16 The Writing Research Group of the JACET Kansai Chapter adopted the C-Test format as it was originally proposed by Klein-Braley & Raatz (1984) and modified it to suit classroom practicalities. The result is a modified form of the original C-Test, which is, despite its modification, still referred to simply as "C-Test" in this paper. The JACET Kansai Group developed two versions of modified C-Test, one of which was used both as pre-test at the beginning (April) and as post-test at the end (July) of spring semester, 2008. For a discussion on the C-Test in general, see Ishihara, Hiser and Okada (2003), the Writing Research Group of the JACET Kansai Chapter (1995, 1998), and Raatz & Klein-Braley (1996).

17 When the test word consists of an odd number of letters, the extra letter is deleted for the test taker to supply, as in *off* and *shoes* in the example.

18 See Appendix 6 in Nation (2001: 430f.) for an entire list of 320 word types that are generally considered as function words.

19 The underlying assumption here is that greater recognition knowledge of vocabulary is a prerequisite for the development of active use abilities.

20 The notion of the "degree of word knowledge" is variously referred to as "depth" (Wesche & Paribakht 1996; Schmitt 2000; Read 2000), "strength" (Laufer et al. 2004), or "familiarity" (Melka 1997: pp. 99-101).

21 For instance, Webb (2007) presents evidence on 121 Japanese students that more than 10 encounters are needed for learning a variety of aspects of a word. Pigada and Schmitt (2006) reach a similar conclusion in their case study, showing that 20 or more encounters are needed for some words to be fully learned. The study by Waring and Takaki (2003) on Japanese EFL students suggests that with 15 to 18 encounters, some words are still not fully learned. Various studies show that a range of 5-16 encounters are needed for a student to truly acquire a word (Schmitt & McCarthy, 1997: 241f.; Nation, 1990: 43ff.).

22 Tseng and Schmitt (2008: 366) summarize "the lexical requirements for English" in the following list:
    "• 2,000-3,000 word families for basic everyday conversation (chat)
    • 3,000 word families to begin reading authentic texts
    • 5,000-9,000 word families to independently read authentic texts
    • 10,000 word families, a wide vocabulary, to allow most language use"
  In Morinaga's vocabulary recognition (VLT) data, 83.01% of the students in 2007 and 84.3% in 2008 proved to be below 5000 word level.

23 For a discussion on strengths and weaknesses of monolingual, bilingual and bilingualized dictionaries, see especially Hunt & Beglar (2005).

24 According to Schmitt and McCarthy (1997: 7f.), "a [native-speaking] five year old

beginning school will have a vocabulary of around 4,000 to 5,000 word families" and "a university graduate . . . around 20,000 word families." Meara (1996: 40) states that "most native speakers have vocabularies in the range of 17,000 word families," while Hulstijn (2003: 362) quotes "between 25,000 and 50,000 words" as American high school students' vocabulary size.

25　Horst, Cobb and Meara (1998) estimate that, on the basis of their findings, even with an "optimistic scenario" of reading fifty novels a year, an "annual gain [of vocabulary acquisition from extensive reading] would amount to only 250 words" (Horst et al. 1998: 221).

　　Whether the amount of gain in vocabulary through reading is efficient enough seems to be a matter of interpretation: Pitts, White, and Krashen (1989) and Day, Omura and Hiramatsu (1991) both assess their data of small gains as showing "a positive effect" (Day et al. 1991) of "a modest, but significant incidental acquisition" (Pitts et al. 1989) of new words. Pigada and Schmitt (2006), by crediting partial learning in their data, claim that "more vocabulary acquisition is possible from extensive reading than previous studies have suggested."

26　For instance, in the real world context clues are limited because redundancy is usually avoided.

27　Hulstijn, Hollander and Greidanus (1996), for instance, found that "the exact meanings [of unknown words] were known with certainty only to students in the MG (i.e., marginal gloss) group and to those students in the D (i.e., dictionary use) group who actually consulted the dictionary" (Hulstijn et al. 1996: 334b).

28　Blanchovicz et al. (2006) and Haynes (2008) suggest a number of in-class activities related to vocabulary learning.

29　On the notion of "automaticity," see Segalowitz (2003).

Dictionaries

Cambridge International Dictionary of English. (1995). Cambridge University Press.

Cambridge Learner's Dictionary: Semi-bilingual Version, First Edition. (2004). Cambridge University Press and 小学館.

Longman Dictionary of Contemporary English, Fourth Edition. (2003). Pearson Education Limited.

Oxford Advanced Learner's Dictionary, Sixth Edition. (2000). Oxford University Press. <http//oup.com>

Word Power: Fully-bilingual Dictionary, First Edition. (2002). Oxford University Press and 増進会出版社.

Word Lists

Coxhead, A. (2000). A new academic word list. (See Coxhead below.)

JACET Textbook Studying Committee. (1993). *JACET 4000 basic words*. JACET.

JACET Basic Words Revision Committee. (2003). *JACET list of 8000 basic words*. JACET.

West, M. (1953). First and second thousand words. (See West below.)

Xue, G., & Nation, I. S. P. (1984). A university word list. (See Xue & Nation below.)

References

Anderson, J. C. (2000). *Assessing reading*. Cambridge: Cambridge University Press.

Arnaud, P. J. L., & Bejoint, H. (Eds). (1992). *Vocabulary and applied linguistics*. London: Macmillan.

Bauer, L., & Nation, I. S. P. (1993). Word families. *International Journal of Lexicography*, Vol. 6, No. 4, pp. 253-279.

Blachowicz, C. L. Z., Fisher, P. J. L., Ogle, D., & Watts-Taffe, S. (2006). Vocabulary: Questions from the classroom. Reading *Research Quarterly*, 41, 4, pp. 524-539.

Brown, G., Malmkaer, K., & Williams, J. (Eds.). (1996). *Performance & competence in second language acquisition*. Cambridge: Cambridge University Press.

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34, 2, pp. 213-238. Also in N. Schmitt (2000), Appendix B.

Day, R. R., Omura, C., & Hiramatsu, M. (1991). Incidental EFL vocabulary learning and reading. *Reading in Foreign Language*, 7, 2, pp. 541-551.

Doughty, J., & Long, H. (Eds.). (2003). *The handbook of second language acquisition*. Oxford: Blackwell.

Folse, K. S. (2004). *Vocabulary myths: Applying second language research to classroom teaching*. Ann Arbor, Michigan: University of Michigan Press.

Haynes, J. (2008, March). Teaching content area vocabulary to English language learners. *Essential Teacher*, pp. 6-7.

Hiebert, E. H., & Kamil, M. L. (Eds.). (2005). *Teaching and learning vocabulary:*

Bringing research into practice. Mahwah, NJ: Erlbaum.

Hirsh, D., & Nation, I. S. P. (1992). What vocabulary size is needed to read unsimplified texts for pleasure? *Reading in a Foreign Language*, 8 (2), pp. 689-696.

Horst, M., Cobb, T., & Meara, P. (1998). Beyond a Clockwork Orange: Acquiring second language vocabulary through reading. *Reading in a Foreign Language*, 11, 2, pp. 207-223. <http://nflrc.hawaii.edu/rfl>

Hu, M. H., & Nation, I. S. P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language*, 13, pp. 403-430. <http://nflrc. hawaii.edu/rfl>

Hulstijn, J. (2001). Intentional and incidental second language vocabulary learning: Reappraisal of elaboration, rehearsal and automaticity. In P. Robinson (Ed.), (pp. 258-286).

Hulstijn, J. (2003). Incidental and intentional learning. In J. Doughty & H. Long (Eds.), (pp. 349-381).

Hulstijn, J. H., Hollander, M., & Greidanus, T. (1996). Incidental vocabulary learning by advanced foreign language students: The influence of marginal glosses, dictionary use, and reoccurrence of unknown words. *The Modern Language Journal*, 80, 3, pp. 327-339.

Hunt, A., & Beglar, D. (2005). A framework for developing EFL reading vocabulary. *Reading in a Foreign Language*, 17, 1. <http://nflrc.hawaii. edu/rfl>

Ishihara, K., Hiser, E., & Okada, T. (2003). Modifying C-Test for practical purposes. *Doshisha Studies in Language and Culture*, 5, pp. 539-568.

Kaivanpanah, S., & Alavi, S. M. (2008a). The role of linguistic knowledge in word-meaning inferencing. *System*, 36, pp. 172-195.

Kaivanpanah, S., & Alavi, S. M. (2008b). Deriving unknown word meaning from context: Is it reliable? *RELC Journal*, 39, 1, pp. 77-95.

Kinshi, K. (2008). Effects of "surveys and tests" as vocabulary practice devices. *Studies in Comparative Culture*, 80, pp. 125-134.

Kinshi, K. (2009). Bringing vocabulary practice into active use: Towards motivated learning. *The Bulletin of the Writing Research Group, JACET Kansai Chapter*, 8, pp. 15-26.

Klein-Braley, C., & Raatz, U. (1984). A survey of research on the C-Test. *Language Testing*, 1(2), pp. 134-146.

Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.

Krashen, S. (1985). *The input hypothesis: Issues and implications*. New York: Longman.

Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *The Modern Language Journal*, 73, 4, pp. 440-464.

Laufer, B. (1992). How much lexis is necessary for reading comprehension? In P. J. L. Arnaud & H. Bejoint (Eds.), (pp. 126-132).

Laufer, B. (1998). The development of passive and active vocabulary in a second language: Same or different? *Applied Linguistics*, 19, pp. 255-271.

Laufer, B., Elder, C., Hill, K., & Congdon, P. (2004). Size and strength: Do we need both to measure vocabulary knowledge? *Language Testing*, 21, 2, pp. 202-226.

Laufer, B., & Hadar, L. (1997). Assessing the effectiveness of monolingual, bilingual, and "bilingualised" dictionaries in the comprehension and production of new words. *The Modern Language Journal, 81, 2*, pp. 189-196.

Laufer, B., & Nation, I. S. P. (1999). A vocabulary-size test of controlled productive ability. *Language Testing*, 16, 1, pp. 33-51.

Laufer, B., & Yano, Y. (2001). Understanding unfamiliar words in a text: Do L2 learners understand how much they don't understand? *Reading in a Foreign Language*, 13, 2, pp. 549-566.

Matsui, S., Okada, T., Ishihara, K., & Pavloska, S. (2004). Toward the use of monolingual English dictionaries: Building knowledge of defining vocabulary. *Doshisha Studies in Language and Culture*, 7, pp. 83-112.

Meara, P. (1996). The dimensions of lexical competence. In G. Brown, K. Malmkaer, & J. Williams (Eds.), (pp. 35-53).

Melka, F. (1997). Receptive vs. productive aspects of vocabulary. In N. Schmitt & M. McCarthy (Eds.), (pp. 84-102).

Min, H-T. (2008). EFL Vocabulary acquisition and retention: Reading plus vocabulary enhancement activities and narrow reading. *Language Learning*, 58, 1, pp. 73-115.

Morinaga, H. (2008a).「語彙力増強の重要性」『主流』第70号 pp.85-105. 同志社大学英文学会.

Morinaga, H. (2008b).「受容語彙サイズ、発表語彙サイズと語彙知識の深さの関連性とこの三つの語彙力構成要因と読解力および聴解力との相関性に関して」JACET全国大会.

Morinaga, H. (2009a). Reliability of C-Test as a device measuring reading and listening comprehension abilities. JACET 全国大会.

Morinaga, H. (2009b). 「聴解力測定にはどのテストが最も有効なのか──Vocabulary Levels Test, Vocabulary Size Test, Productive Levels Test, Word Associate Test, C-Test との相関性の視点からの考察──」 外国語メディア学会.

Nagy, M. (2005). Why vocabulary instruction needs to be long-term and comprehensive. In E. H. Hiebert & M. L. Kamil (Eds.), (pp. 27-44).

Nation, I. S. P. (1990). *Teaching and learning vocabulary*. Boston: Heinle & Heinle Publishers.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Nation, I. S. P., & Wang, K. (1999). Graded readers and vocabulary. *Reading in a Foreign Language*, 12, 2. <http://nflrc.hawaii.edu/rfl>

Pigada, M., & Schmitt, N. (2006). Vocabulary acquisition from extensive reading: A case study. *Reading in a Foreign Language*, 18, 1. <http://nflrc. hawaii.edu/rfl>

Pino-Silva, J. (1993). Untutored vocabulary acquisition and L2 reading ability. *Reading in a Foreign Language*, 9, 2. <http://nflrc.hawaii.edu/rfl>

Pitts, M., White, H., & Krashen, S. (1989). Acquiring second language vocabulary through reading: A replication of the Clockwork Orange study using second language acquirers. *Reading in a Foreign Language*, 52, 2, pp. 271-275.

Raatz, U., & Klein-Braley, C. (1996). Introduction to language testing and C-Tests. In Coleman (Ed.), *University language testing and the C-Test*. (University of Portsmouth Occasional Papers in Linguistics).

Read, J. (2000). *Assessing vocabulary*. Cambridge: Cambridge University Press.

Read, J., & Chapelle, C. A. (2001). A framework for second language vocabulary assessment. *Language Testing*, 18, 1, pp. 1-32.

Robinson, P. (Ed.). (2001). *Cognition and second language instruction*. Cambridge: Cambridge University Press.

Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), (pp. 199-227).

Schmitt, N. (1998). Tracking the incremental acquisition of second language vocabulary: A longitudinal study. *Language Learning*, 48(2), pp. 281-317.

Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge: Cambridge University Press.

Schmitt, N. & McCarthy, M. (1997). *Vocabulary: Description, acquisition and pedagogy*. Cambridge: Cambridge University Press.

Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the vocabulary levels test. *Language Testing*, 18 (1), pp. 55-88.

Segalowitz, N. (2003). Automaticity and second languages. In J. Doughty & H. Long (Eds.), (pp. 383-408).

Sökmen, A. (1997). Current trends in teaching second language vocabulary. In N.

Schmitt & M. McCarthy (Eds.), (p. 237-257).

Tseng, W., & Schmitt, N. (2008). Toward a model of motivated vocabulary learning: A structural equation modeling approach. *Language Learning*, 58, pp. 357-400.

Waring, R. (2001). *Oxford learner dictionaries: Getting your students to use their dictionaries effectively*. Oxford University Press.

Waring, R., & Takaki, M. (2003). At what rate do learners learn and retain new vocabulary from reading a graded reader? *Reading in a Foreign Language*, 15, 2. <http://nflrc.hawaii.edu/rfl/October2003>

Webb, S. (2007). The effects of repetition on vocabulary knowledge. *Applied Linguistics*, 28, 1, pp. 46-65.

Wesche, M., & Paribakht, T. S. (1996). Assessing second language vocabulary knowledge: Depth versus breadth. *Canadian Modern Language Review*, 53, pp. 13-40.

West, M. (1953). *A general service list of English words*. London: Longman, Green and Company.

Writing Research Group, JACET Kansai Chapter. (Ed.). (1995).『大学における英作文指導のあり方：英作文実態調査の報告』 (Teaching writing at colleges and universities: A survey report).

Writing Research Group, JACET Kansai Chapter. (Ed.). (1998). 『大学における英作文指導の課題：実践研究の報告』(Teaching writing in colleges and universities: Practical report) 第３号.

Xue, G., & Nation, I. S. P. (1984). A university word list. *Language Learning and Communication, 3, 2*, pp. 215-229. Also in I. S. P. Nation (1990), Appendix 2.

Appendices

Appendix I-a: Comparison of the VP Word List with JACET 8000.

JACET 8000	Words on list	Words for practice	Percentage
Level 1000	1000	43	14.3
Level 2000	1000	93	31.0
Level 3000	1000	70	23.3
Level 4000	1000	31	10.3
Subtotal	1000-4000	237	79.0
Level 5000	1000	26	8.7
Level 6000	1000	15	5.0
Level 7000	1000	6	2.0
Level 8000	1000	5	1.7
Subtotal	4000-8000	52	17.3
Total	8000	289	96.3
Not listed	/	11	3.7

Appendix I-b: Comparison of the VP Word List with University Word List (Xue & Nation 1984).

University Word List	Words on list	Words for practice	Percentage
Level 1	80	8	2.7
Level 2	86	6	2.0
Level 3	75	3	1.0
Level 4	78	5	1.7
Level 5	70	5	1.7
Level 6	76	6	2.0
Level 7	77	4	1.3
Level 8	62	3	1.0
Level 9	47	0	0
Level 10	67	1	0.3
Level 11	89	6	2.0
Total	807	47	15.7
Not listed	/	253	84.3

Appendix I-c: Comparison of the VP Word List with New Academic Word List (Coxhead 2000).

Academic Word List	Words on list	Words for practice	Percentage
Level 1	60	3	1.0
Level 2	60	6	2.0
Level 3	60	2	0.7
Level 4	60	4	1.3
Level 5	60	6	2.0
Level 6	60	4	1.3
Level 7	60	3	1.0
Level 8	60	1	0.3
Level 9	60	4	1.3
Level 10	30	0	0
Total	570	33	11.0
Not listed	/	267	89.0

Appendix II: Number of Vocabulary Practice Questions Based on Dictionary Entries.

Vocabulary Practice Sheets	First Series					Second Series					Total
	A1	B1	C1	D1	E1	A2	B2	C2	D2	E2	
Entirely based on: (sub-total)											**80**
Word Power Fully-Bilingual Dictionary.	2	1	1				4	6			14
Cambridge Learner's Dictionary: Semi-Bilingual Edition.	2	1		2		6	8	5	10	5	39
Longman Dictionary of Contemporary English.		1				1	4	3	3	5	17
Word Power Fully-Bilingual Dictionary, and Cambridge Learner's Dictionary: Semi-bilingual Edition.	1							2			3
Word Power Fully-Bilingual Dictionary, and Longman Dictionary of Contemporary English.							1	2			3
Cambridge Learner's Dictionary: Semi-bilingual Edition, and Longman Dictionary of Contemporary English.						1	1		1		3

Vocabulary Practice Sheets	First Series					Second Series					Total
	A1	B1	C1	D1	E1	A2	B2	C2	D2	E2	
Word Power Fully-Bilingual Dictionary, Cambridge Learner's Dictionary: Semi-bilingual Edition, and Longman Dictionary of Contemporary English.								1			1
Partly based on: (sub-total)											**111**
Word Power Fully-Bilingual Dictionary.	2	7					1	1		2	13
Cambridge Learner's Dictionary: Semi-bilingual Edition.	8	3	4	5	5	7	1	1	3	4	41
Longman Dictionary of Contemporary English.	2	1	4	3	2	5	4	2	1	1	25
Word Power Fully-Bilingual Dictionary, and Cambridge Learner's Dictionary: Semi-bilingual Edition.	1						1	1	1	1	5
Word Power Fully-Bilingual Dictionary, and Longman Dictionary of Contemporary English.						1	1	1		1	4
Cambridge Learner's Dictionary: Semi-bilingual Edition, and Longman Dictionary of Contemporary English				1	1	4	1	2	7	4	20
Word Power Fully-bilingual Dictionary, Cambridge Learner's Dictionary: Semi-bilingual Edition, and Longman Dictionary of Contemporary English						1			2		3
Entirely or partly based on dictionaries	17	14	9	11	8	26	27	28	28	23	191
Originally written	13	16	21	19	22	4	3	2	2	7	109
Total number of questions	30	30	30	30	30	30	30	30	30	30	300

Appendix III: Percentage of Correct Responses to C-Test and VP Test Items in Score Brackets. 150 items of VPs are divided into 15 score brackets from the lowest to the highest. Content words and function words in C-Test are categorized into 13 and 12 score brackets respectively.

Score Ranks	VP First Series (A1-E1)		VP Second Series (A2-E2)		Pre-C-Test (April)		Post-C-Test (July)	
	Test Words	Distracters	Test Words	Distracters	Content Words	Function Words	Content Words	Function Words
Lowest	61.16	71.23	63.94	71.90	9.24	19.85	19.46	36.58
2	70.18	79.21	75.43	84.28	16.97	29.09	30.54	44.30
3	75.58	83.26	81.62	88.72	22.73	46.67	37.42	53.02
4	79.12	85.95	85.92	90.52	27.88	53.33	44.63	65.10
5	81.47	87.73	88.25	91.57	35.76	61.82	49.66	70.47
6	83.98	89.03	90.20	92.56	39.39	64.85	53.19	71.81
7	86.16	90.07	91.29	93.49	52.42	66.67	60.40	73.49
8	87.87	91.35	92.54	94.16	58.94	68.18	68.12	78.19
9	89.62	92.65	93.66	95.00	61.97	73.03	72.32	83.56
10	91.44	93.87	94.75	95.64	71.52	78.48	79.87	90.94
11	93.04	94.87	95.62	96.21	76.67	86.97	85.57	93.29
12	94.75	95.70	96.55	96.83	85.15	93.33	90.10	96.64
13	96.44	96.84	97.80	97.70	97.58	/	96.64	/
14	97.68	97.94	98.89	98.43	/	/	/	/
Highest	99.09	99.14	99.73	99.58	/	/	/	/

定義語の実践訓練：英英辞書の使用をめざして

　３つの学習英英辞書 (the Oxford Advanced Learner's Dictionary, the Cambridge International Dictionary of English, the Longman Dictionary of Contemporary English)のいずれか２つに共通する語彙384語から300語を選び、60語の語彙リストを５種類作成し、その語彙について「知っている」「知らない」「判断できない」に区別させるアンケートを実施した。そのデータを参考にして300語に基づく語彙練習問題 (Vocabulary Practice: VP) を10種類作成した。練習問題を実施する１〜２週前に語彙リストを配布して学習させ、配布の翌週または翌々週に練習問題を実施した結果、語彙力の伸展が見られた。

　数年来、英英辞書の定義語 (defining vocabulary) に基づいた語彙リストや語彙テスト、並びに、テスト結果を反映させた復習指導などにより、語彙の強化を図りつつ、英英辞書使用をより身近なものにする試みを進めてきたが、この試みは次の点から極めて有意義と思われる。即ち、語学学習の要である語彙自体に焦点を向けられること、英英辞書の見出しや説明自体が語彙増強につながる格好の教材であること、英語による英語学習法が刺激的な目標となり得る、などである。