Developing Vocabulary Acquisition Strategies in the Japanese Tertiary Classroom: An Action Research Study

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In the second semester of 2007, I took over a full-year EFL course at a university in central Tokyo, teaching a group of students taken from the Education and Psychology departments. Where many institutions allow the lecturer *carte blanche* with regard to course content, this university has a prescribed syllabus, to which the previous teacher had added their own requirements. I was thus placed in the difficult position of taking over a class mid-course and balancing the expectations of the students with those of the institution and the demands of their previous instructor.

One of the central requirements of the course was the production of a "vocabulary notebook." The students were told that this had to include ten new words each week and that it would be checked at the end of the semester. Early on, I collected the notebooks and checked them. As the students wished to focus more on fluency development and active speaking during class, this task had been given a low priority by the previous teacher. Accordingly, the teacher had left the content of the notebooks entirely up to the students and only viewed them once, at the end of the semester. As one would expect, what most students had done when pressed for time was to choose the required number of words from a dictionary, more or less at random, and enter them without exercising any form of selection. Often, the work had clearly been done at one sitting. In a few cases, the words were even alphabetically listed, copied directly from a dictionary. Quizzing students on various words demonstrated that they had no retention of previously unknown vocabulary. Whilst they had completed the task as required, they had generally done so in a way which had had virtually no lasting result in terms of the development of their personal lexicons.

Following Barcroft's (2004) argument that current research indicates that the teaching of vocabulary over grammar is a preferable strategy with regard to long-term success in L2 acquisition, I decided that one of my goals would be to turn the vocabulary notebook into a meaningful tool that would enhance the L2 development of students in both a productive and receptive sense. The most appropriate approach for this seemed to be an action research model (Ellis, 1994). Following the initial situational analysis outlined in the prior paragraph, this project has had three cycles each containing the four stages of

plan, action, analysis and reflection: second semester 2007, first semester 2008 and second semester 2008. It should be noted that the reflection stage of each cycle served as the reconnaissance stage of the following one. Between the second and third cycles, a literature review was also undertaken.

Cycle One—Second Semester 2007

Plan and Action

I decided that it was unfair to amplify the complexity of the vocabulary notebook tasks by a significant margin in the first stage. This was because of existing expectations on the part of the students: a sudden and sharp increase in difficulty in one area of the course would be more likely to result in resentment and a negative outcome than a positive. Accordingly, I decided to make a minor change that would add relevance to the vocabulary chosen.

The textbook used by this class had a number of short articles which could form the basis for discussion. It also included between three and seven new words and phrases for study each chapter. I decided to make these the basis of the notebook, stipulating that they had to be included each week. The remaining words were supposed to be derived from the classroom environment itself, although I had no mechanism in place for verifying whether they had done so. As a checking mechanism, I set two tests, one at the midpoint of the semester and one at the end. Both included a vocabulary section using two methods. First, a passage was given into which students had to insert words from a list. Then, students had to write sentences demonstrating their understanding of lexical items. Correct sentences could take many different forms and still be an appropriate response. For example, if the word was *bright*, then the sentences "The sun is bright outside today" and "The stars shone brightly" would both be acceptable.

Analysis and Reflection

As a way to focus students on vocabulary, this phase was partially successful. In post-semester discussions, I found that overall retention of textbook vocabulary was high, although this was largely limited to the form of the word encountered rather than a whole lexical grouping. In addition, it seemed that many students still put little or no thought into the non-textbook words included in their notebooks, and that retention of these was minimal. I tested this informally by asking students to use and define words randomly chosen from their notebooks, which led to my conclusion that textbook-related vocabulary retention was significantly better than non-textbook words. A large number of non-textbook words included in the notebooks were unrelated to activities undertaken in the lessons. Some students even still filled in the "spaces" between text-based vocabulary items with alphabetical lists of words and definitions obviously taken from dictionaries, and almost none of these could be used or defined by students unless they were common

words already likely to be in their lexicon. For example, one student listed the words *cat*, *catastrophe*, and *catatonic* one after another with definitions, but could only define or use the first of these in a sentence. Finally, I was also concerned that the testing and usage of vocabulary was very much teacher centered, so I considered ways in which I could alter the model.

Cycle Two—First Semester 2008

Plan and Action

At the beginning of the next year, I was given a similar class of first-year students doing the same course. I decided that I would try to integrate the vocabulary notebook more closely into the syllabus. Accordingly, I decided to retain the focus on textbook words, using this as a way of keeping a constant element against which I could measure progress. In addition, another syllabus item was a weekly media discussion for which students were required to find an article, write a summary, and discuss it in class with topic questions. Rather than allow students to take the remainder of the vocabulary words from anywhere, I required that they had to use in-class discussions as the basis for choice.

I came up with a class activity that I called "the vocabulary game." Students were arranged into groups of four throughout the semester, and there were a total of eight groups. I matched them randomly and held a competition. Each paired-off group would swap notebooks and test each other on five words chosen by the opposing team. The group with the most points would win. In addition, I did not change my vocabulary testing format, and I examined the notebooks at the end of the semester.

Analysis and Reflection

This set of strategies resulted in an apparent increase in vocabulary retention and contextual understanding. For the first time, I began to see significant lexical variation in test answers. Informal questions in class revealed that, generally, students were tending to remember text-based words well. On the other hand, the choice of words from the media discussions was often arbitrary and this vocabulary was generally poorly retained and employed. This was determined again by discussions and informal testing with students undertaken both during the semester and afterwards. My observations of the vocabulary game also revealed that text-based words that had been studied and used with greater frequency during class were almost always defined successfully but non-text words had a considerably lower success rate. Although it seemed helpful, the vocabulary game took up considerable class time due to the need to set it up effectively and explain how it worked several times. Accordingly, I decided to make some changes to my model for the second semester of 2008.

Literature Review

Before settling on a new plan of action, I decided to spend some time looking at research in the area, both in order to find out strategies employed by others and to attempt to synthesize some general working hypotheses about the nature of vocabulary acquisition in a Japanese university context. I found that there was not only a considerable amount of work that had been done but also a notable diversity of approaches.

As a starting point, Barcroft (2004) identifies five basic strategies for effective vocabulary teaching: 1) teach new words frequently and repeatedly, 2) present words in a meaningful context, 3) limit forced output (such as sentence writing) at first, 4) limit semantic elaboration at first, and 5) gradually increase the difficulty of vocabulary tasks. He notes, however, that strategy number four does not mean that meaning-focused vocabulary learning is not useful. Instead, it needs to be progressive in terms of complexity. I decided to examine each of these five strategies in turn to see what the current literature relevant to my situation offered.

Frequency

How frequently new words should be taught—and the types of techniques most suitable to teach them—is the first issue to consider within Barcroft's framework. Webb (2007) considered the effect of repetition on L2 vocabulary acquisition, focusing particularly on Japanese learners of English. He looked at a number of contexts and asked how often a word needs to be encountered before it is retained. Where his research differs from previous investigations is both in its consideration of separate context types and in its examination of not only meaning but other elements, including orthography, associations, grammatical function, syntax, and form. The most notable gains in all areas took place after three encounters and, although there was improvement in retention and understanding all the way up to ten repetitions, gains became smaller each time with more improvement in productive than receptive knowledge. The final conclusion, unsurprisingly, was that more repetitions will increase retention; however, context has a significant influence.

Context

The second of these categories, the presentation of vocabulary in a meaningful context, is considered by Cain (2007), who looks at whether or not meaning can be derived from situational placement in L2 study. She notes that there has possibly been an over dependence on the "target word" pedagogic technique. This is because word retention can be considered as incidental when set against the overall goal of understanding the general meaning of a passage. Through experimentation, she concludes that the most notable gains in vocabulary take place when a word is

defined after being encountered in a broader passage and the reasoning behind this definition is made explicit by the student. An interesting point is that a combination of repetitive practice and feedback-driven instruction yields the greatest gains.

Rott (2007) examines the effect of frequency and devices such as glosses on long-term language retention. He found that repetition of a glossed word is just as effective for retention as a gloss plus a memory prompt. In addition, usage which stimulates the deeper processing of lexical items is significantly more helpful for long-term retention. Thus, the contextual placement of glossed words is likely to have a more notable effect if combined with a repetitive activity.

Where Rott explores L2 glosses in the context of frequency, Yoshii (2006) looks at the difference in effect between L1 and L2 glosses. As he notes, glosses increase overall language retention, particularly in the case of incidental vocabulary, although there is considerable debate as to whether a gloss in the L1 or L2 is more effective. He notes two models crucial to progress in language acquisition: the *word association* and the *concept mediation* models, which were first identified by Potter, So, Eckhardt, and Feldman (1984). Word association is a translative model, where the L1 mediates understanding in the L2 and the concept mediation model promotes direct mediation of ideas entirely within an L2 context. Moving from the use of word association to concept mediation is a sign of important progress in an individual student's process of L2 acquisition. Yoshii's findings indicate no significant difference between L1 and L2 glosses in immediate recall testing; however, there was less decay in retention in the group who used L1 glosses. He speculates that this could be a function of the language proficiency level of the participants. In addition, his test did not consider the effect of L2 glossing on other skills, such as circumlocution and fluency building.

Limit Forced Output

O'Brien, Segalowitz, Freed, and Collentine (2007) examined the relationship between L2 study and phonological memory. They concluded that phonological memory has a significant impact on L2 acquisition with regard to vocabulary and, additionally, overall oral fluency. This establishes a causal relationship between vocabulary study and fluency development, which is characterized as hesitation reduction and speech fluidity. Where the conclusions of this research were significant for my action research project is in its focus on adult learners, rather than young students. In addition, it argued that a phonological approach is more naturalistic and suggests that the forcing of written output is not the most effective way to proceed in initial contextualizing of vocabulary.

Limit Semantic Output

Semantic elaboration can be either student- or teacher-based. A prescriptivist might argue that the latter is better for the acquisition of correct usage, but recent research indicates that, in fact, the former may be just as useful. Sommers and Barcroft (2007) offer an interesting discussion which postulates that, whilst pronunciation variability may have a negative effect on vocabulary acquisition in an L1, it will actually have a positive one on an L2. Variation in speaker characteristics, style, and rate are found to aid in acquisition of vocabulary and overall retention. Webb (2008) notes that there is a difference between receptive and productive vocabulary sizes in L2 learners, noting that the former is larger than the latter. Partial knowledge ratios are close, but strict scoring leads to a greater division for ESL students. In the case of EFL learners, however, this is less marked, due to the tendency to concentrate more on individual vocabulary items. This is an advantage in production and, possibly, can be used to target fluency goals in the long term.

Gradual Increase in Task Complexity

Pulido (2007) looked at the gradual increase of task difficulty in reading and vocabulary acquisition. Essentially, she found that L2 reading enhances overall contextual understanding and retention of vocabulary, and that this is enhanced by the use of material which is based on familiar topics. She recommended designing tasks which emphasize both macro- and micro-skill use and their graded implementation. An example of this is passage comprehension, in which a longer section of text is used as a contextualizer for individual vocabulary elements.

Analysis and Reflection

Based on this review and the experiences I had had to this point, I formulated five principles. First, words needed to be encountered and reviewed frequently. Second, words needed to be more contextualized within passages. Third, regardless of Yoshii's conclusions, empirical in-class evidence has so far suggested that L2 glosses are more effective, both in terms of individual word retention and skill building. So we would continue with L2 glosses rather than allowing L1 glossing. Fourth, initially, words should be encountered in a naturalistic setting, with gradual emphasis on semantic and forced output built up to over time. And fifth, having students teach each other vocabulary is advantageous for long-term vocabulary retention due to the effect of pronunciation variability. Overall, the general trend in the development of my vocabulary teaching has been towards a combined teacher- and student-centered approach.

Cycle Three—Second Semester 2008

Plan and Action

After considering lessons learned from previous semesters, discussions with other teachers, and the results of my literature review, I decided on a set of ideas for the final

semester of my study. The most significant change was that student presenters of media reports had to include three new words of their own that they would present—read aloud with L2 (English) glosses—at the outset of each discussion. The words would then appear in the discussions themselves, giving students who were listening at least three focal loci as comprehension aids. Because I rotated group leaders so that they presented four times each class, each student would receive a total of twelve new words in class. In addition, I would choose the three most relevant text words each week, which had to be included in the notebook and would form the basis of the vocabulary element of the semester tests. Students could thus complete their vocabulary notebooks entirely in class.

Rather than abandon the vocabulary game, I increased the frequency to each fortnight, in the hope that familiarity would reduce preparation time. As the game could use any words from the whole semester, it became progressively more difficult as the number of possible choices increased. In addition, I decided that the vocabulary notebook would not be assessed at the end of the semester, but would be examined as an ongoing element of weekly study. Students became aware that I could pick up the book and check it at any time.

Results and Discussion

In order to evaluate the efficacy of the different approaches, I compared the results of the vocabulary sections of the tests given throughout the semesters. The overall grades were based on a large number of factors, including in-class involvement, quality of discussion, and completion of various homework tasks, but the tests offer, perhaps, the simplest and most objective variable to examine.

The vocabulary section of the two tests in each semester was marked out of twenty. The general structure was first a paragraph exercise, into which words or phrases from a list had to be inserted (ten words or phrases, worth one point each) and, secondly, a set of five sentences to be written. Each sentence had to utilize the word given. One point was given for using the word correctly and one for grammar. For a sample test, see the appendix.

The skills needed for the two activities are different. In the first place, the students needed to be able to deduce which word to use from context, whereas, in the second place, they had to create the context for the word. In almost all tests, students scored higher marks on the first section rather than the second. Six test cycles are considered here. The first two had 28 respondents, the next two 31 and the last two 30 (one student was unable to continue in the second semester of 2008). It should be noted that the two 2007 tests were taken by one group of students (Group A) and the four 2008 tests by another (Group B). Results are given in percentages to two decimal points (see Table 1).

Table 1

Comparison of Test Results

	Sem. 2, 2007: Test 1 (Group A)	Sem. 2, 2007: Test 2 (Group A)	Sem. 1, 2008: Test 1 (Group B)	Sem. 1, 2008: Test 2 (Group B)	Sem. 2, 2008: Test 1 (Group B)	Sem. 2, 2008: Test 2 (Group B)
Overall Score	70.89%	73.57%	74.51%	76.12%	79.00%	78.17%
Paragraph	69.64%	73.92%	75.16%	76.77%	79.67%	78.67%
Word use	75.00%	76.42%	76.67%	79.35%	82.00%	81.33%
Grammar	69.29%	70.00%	70.96%	71.61%	74.67%	74.67%
Conversion	2 attempts	6 attempts	21 attempts	32 attempts	48 attempts	41 attempts

Several categories of results are considered here: 1) Overall score for the vocabulary section, 2) Marks for correct placement of words or phrases in a paragraph, 3) Marks for word or phrase use in a sentence, 4) Marks for grammar, and 5) Evidence of conversion (adding or removing inflections, changing tense or word type).

There was a rise of just over 8% in total average test scores over the period, although the last test showed an overall dip of 0.83%. This was probably due to the general fatigue that can set in towards the end of an academic year, and might suggest that the improvement over the course of the second half of 2007 might have been slightly more than is apparent from the results. While familiarity with the test format

might account for some of the improvement, this would only be minor. Other elements, such as the increased number of attempts at modifying lexemes, indicate that a genuine improvement in understanding is taking place. In addition, a significant (greater than 5%) development in the grammatically correct usage of vocabulary items in the appropriate context shows that words were not only being retained, but placed within an overall contextual framework.

As we can see in Table 1, at the close of the second semester, test scores were consistently higher and a greater range of lexical variation was in evidence. In addition, the media discussion vocabulary has been a positive choice. Initially, I had two concerns about teaching vocabulary in media discussions. The first was that students would choose difficult or low frequency words that would be hard to retain. This proved not to be the case due to the need for an L2 gloss. Students tended to choose central words that were easy for them to explain. The second potential issue was that teaching vocabulary in this way would take up too much classroom time. Initially, this was the case but, as the class grew used to this activity, it went faster. One trend that I saw was presenters actually creating a short handout with their words. They explained them briefly, and then left the handout so that group members could record the words in their own time during the presentation.

Some students provided both L1 and L2 glosses. I tended to frown on this, but it still took place from time to time. There was a tendency for L1 equivalents to be given softly once I was thought to be out of earshot, but this lessened gradually as students grew more accustomed to the task. Concern about the amount of time taken by the vocabulary game proved to be unnecessary as well. After practice, it progressed fairly smoothly, taking no more than ten minutes of class time.

Conclusion

The results indicate that there was a gradual movement from a less effective learner-reliant model to a more effective combined teacher-directed and learner-centered one. The progressive development of tasks across the initial situation that served as the basis for reconnaissance and the subsequent three cycles of action research is given below in Table 2.

So far, the evidence suggests that the strategies employed have proven to be effective in enhancing the short-term retention and contextualization of vocabulary. What remains to be seen is the effect of the pedagogical changes on long-term retention. In addition, it would be interesting to find a way of testing the effect of this strategy on overall L2 development. That would, however, require a more complex experimental process and is a project for future research.

Table 2

Progressive Vocabulary Task Development

	Previous Teacher Version (learner-reliant model)	**First Cycle (teacher-reliant model)**	**Second Cycle (teacher-and learner-reliant model)**	**Cycle (modified teacher-directed and learner-centered model)**
Vocabulary Notebook Format	Vocabulary notebook has ten words per week, defined in English and chosen by the student	Vocabulary notebook has ten words per week, defined in English and including the textbook unit words	Vocabulary notebook has ten words per week, defined in English and including the textbook unit words	<u>Minimum</u> ten new words each week in the vocabulary notebook, <u>maximum</u> of fifteen
Media Report Input			Words can be chosen from the Media Reports	Three new words are required in each Media Report, with English definitions, read aloud before the report is given
Textbook Input				Three new words each week from the textbook are given in class
Vocabulary Game			One round of the vocabulary game is played between two groups once per group	Approximately each fortnight, one round of the 'vocabulary game' is played between two groups

	Previous Teacher Version (learner-reliant model)	**First Cycle (teacher-reliant model)**	**Second Cycle (teacher-and learner-reliant model)**	**Cycle (modified teacher-directed and learner-centered model)**
Completion of Task	Notebook completed as homework	Notebook completed as homework	Notebook completed in class	Notebook completed in class
Testing		Two semester tests on textbook vocabulary are given, utilizing both insertion and contextual sentence construction	Two semester tests on text-book vocabu-lary are given, utilizing both insertion and contextual sentence construction	Two semester tests on textbook vocabulary are given, utilizing both insertion and contextual sentence construction
Assessment	Notebooks assessed at the end of the semester	Notebooks assessed at the end of the semester	Notebooks assessed at the end of the semester	Notebooks assessed during the semester

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Appendix

Sample Test, Vocabulary Section
(semester 1, 2008)

Mid-Semester Test: Impact Issues, Units 1-5 **Page ONE**

Please fit the words or phrases from the following list into the story below.

take it for granted	export	cattle	pollution	scarce
contract	waste of time	literature	attractive	destroy

Many people say that studying something like _____ is really a _____. I know that, if you have a good education, it is easy to _____, but imagine what the world would be like if people weren't educated at all. Because of education, people understand the problems with issues like _____, which could _____ the environment, and know that relying too much on beef from _____ now could lead to food becoming _____ in the future. In a way, we are making a _____ with future generations. By being educated ourselves, we learn to see the world intelligently. When we travel, we can _____ our knowledge as we go. It is an_____ idea.

Please use the following words or phrases in a sentence to show that you understand their meaning. You can change the form of the word or phrase to fit the context if needed.

E.g.:

    Bright

    The sun was very bright today, so I wore sunglasses. Or The sun was shining brightly, so it was hot.

1. Earn
2. Willingly
3. Employees
4. Heart disease
5. Population

Conference Announcements

The 2nd International ELT Conference on Teacher Education and Development. May 7-8, 2010. Maltepe University, Istanbul, Turkey. E-mail: elt@maltepe.edu.tr

The Ninth Annual Wenshan International Conference. May 29, 2010. The English Department of National Chengchi University will hold the Ninth Annual Wenshan International Conference on the NCCU main campus in Taipei. The theme for this conference is "Meeting the Challenges of Serving the New Generation of EFL Learners". Web site http:// english.nccu.edu.tw/seminar/actnews.php?Sn=9

The JALT-CALL 2010 Conference. May 29-30, 2010. Kyoto Sangyo University, Kyoto, Japan. E-mail: davidockert1@gmail.com. Web site http:// jaltcall.org/call2010/

MATE-TESOL Haiti. June 24-25. 2010. Haitian American Institute, Port Au Prince, Haiti. The theme is "Strengthening English Language Learners Success." E-mail: jeanfranois_vilmenay@yahoo.com

8th Annual The Far Eastern English Language Teachers' Association Conference (FEELTA). June 28-30, 2010. Conference at the Far Eastern State University of Humanities, Khabarovsk, Russia. Conference chair, Natalya Maximova. E-mail: nrmaximova@hotmail.com. Web site http:// feelta.wl.dvgu.ru/File%201.htm

The Australian Council of TESOL Associations (ACTA). July 7-10, 2010. Conference at the Holiday Inn on the Gold Coast. The theme of the conference is "Redefining 'TESOL' for the 21st Century Language Learning and Teaching for the Future." E-mail: sarah.hoekwater@optusnet.com.au. Web site http:// www.astmanagement.com.au/acta10/

The English Teacher's Association of Israel. July 12-15, 201. Conference held at the Ramada Conference Center, Jerusalem, Israel. The theme of the conference is "Linking Through Language" will feature effective ELT in all stages and all levels. E-mail: vsjakar@gmail.com. Web site http:// www.etai.org.il/ETAI_2010.html.

TESOL Chile and IATEFL Chile joint annual conference. July 23-24, 2010. Conference held at the Universidad San Sebastián, Campus Bellavista, Santiago, Chile. The theme of the conference is "Communication, Culture, & Community." E-mail: tesolchile@gmail.com. Web site: http:// www.iatefl-tesol.cl/

Peru TESOL. July 31st to August 2nd 2010. Annual convention held at the Universidad Catolica Santa Maria in Arequipa, Peru. The conference theme is "An Intercultural Approach to the Teaching of English as a Foreign Language." E-mail: perutesoler162 @yahoo.com. Web site http:// www.perutesol.com