Developing Vocabulary in Second Language Acquisition:
From Theories to the Classroom
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Abstract

This paper examines the theories behind vocabulary acquisition in second language learning in order to put these theories into practice in a class. Learning vocabulary is an ongoing process which requires systematic repetition to help students learn, especially low context vocabulary. Students can retain the vocabulary they find useful and relevant to their subject matter by learning vocabulary through context, cooperative learning, and using technology. Results from an action research project will be reported.

Introduction

Until recently vocabulary had been widely overlooked in the ESL/EFL classroom. Maiguashca (1993) stated that teaching or studying grammar is based on a set of rules with a coherent structure which students follow or remember, but the same is not true of vocabulary (p. 91). Within the last few years, vocabulary has become viewed as an important aspect in second language learning, in fact, many believe just as important as the main skills of reading, writing, listening, and speaking. Nation (as cited in Nation and Waring, 1997) explained, "Vocabulary knowledge enables language use, language use enables the increase of vocabulary knowledge, knowledge of the world enables the increase of vocabulary knowledge and language use and so on" (p. 6). This contextualized approach to learning vocabulary will help students increase their vocabulary though authentic interaction. In this paper, I will examine the theories behind vocabulary acquisition and some results when they were put into practice during my student teaching.

Theoretical Concepts

Building vocabulary is extremely important for success in undergraduate or graduate studies. Nation and Waring (1997) reported that 5-year-old native English speakers beginning school will have a vocabulary of around 4,000 to 5,000 word families, adding roughly 1,000 word families a year until graduating from university with a vocabulary of around 20,000 word families (p. 7). Bauer and Nation (as cited in Nation and Waring) defined a word family as the base word, its inflected forms, and a small number of regular derived forms (p. 7). This means that students such as those in the English Foundations Program (EFP) at Hawai'i Pacific University (HPU) have an enormous challenge ahead of them, considering that their previous schooling was in their L1, not English. If one uses Nation and Waring's statement that native speakers have a vocabulary of around 20,000 word families at the time of university graduation, non-native speakers, before finishing EFP 1310, an advanced-level class in the EFP, and entering the undergraduate program, would have to increase their vocabulary from between 5,000 to 15,000 word families, depending on their previous English language studies. The good news is that according to Jamieson (as cited in Nation and Waring), once ESL students enter a school where English is the primary language, their vocabulary grows at the same rate as native speakers, around 1,000 word families a year; however, the initial gap never closes (p. 7). Understanding where ESL students are starting from will help in providing the vocabulary needed in order for them to improve and catch up.

Learning vocabulary is an ongoing process that takes time and practice. Nakata (2006) acknowledged that vocabulary acquisition requires continual repetition in order for effective vocabulary learning (p. 19). Vocabulary acquisition is not something a student can spend time learning or memorizing, like grammar, and be successful. Acquisition requires the learner to be disciplined, spending time each day working on words he/she does not know in order for

learners to remember high frequency words and put them into their long term memory, Nation and Waring stated that learners need to encounter the word multiple times in authentic speaking, reading, and writing context at the student's appropriate level (p. 8). Developing lessons which allow the student to encounter new words multiple times, allowing them to put the new words into his/her long term memory can be time consuming. Developing word lists from the context of the lesson can reduce the work load, enabling the student to encounter the word multiple times through reading, listening, and speaking.

Learning new vocabulary through context also helps the student understand the word's correct usage and prevents students from making sentences from dictionary definition such as, *There is a large cleavage between the rich and poor in America.* Learning new words from a word list is much different from learning them in the context of a sentence or story. Yongqi Gu (2003) stated that learning new words through context is only one step students may use, and that students should think meta-cognitively and learn new words within the context of where they appear. (p. 14). To help the student learn the important words from the context of a lesson a teacher needs to focus on low context words, which necessitates a second distinction: high frequency and low frequency words. Nation (2005) defined high frequency words as words that occur quite frequently in the language, such as *the*, *a*, *man*, and *woman*. High frequency words occur so regularly in daily conversation that if students understand these words, they are able to write and speak in comprehensible English. Low frequency words, as described by Nation, are words that deal more with academic studies, words that appear throughout all academic texts and courses, but not very often in day to day speech, such as *formulate*, *index*, and *modify* (p. 48). This helps ease the burden a teacher has when trying to understand what words students understand; however, low frequency words are the more difficult aspect for teachers to teach and learners to understand. Creating vocabulary lists from the students'

textbooks and presenting these words through context in the lesson should help them to retain and use the new vocabulary. It will also carry through that students learn vocabulary better when they find the items to be useful and are able to put the new words into use more often while they study.

Vocabulary, like other aspects of language learning, can be facilitated when done through cooperative learning. Yongqi Gu (2003) pointed out that vocabulary acquisition is a very learner-centered activity with the effectiveness of the learner's strategies depending on his/her attitude and motivation towards new vocabulary acquisition (p. 2). This is true because the main motivational learning factor must come from the student, but when learning vocabulary in a cooperative learning environment it allows students to learn from peers closest to them. Murphey and Arao (2001) pointed out that students felt more relaxed and learned more from peers since they saw that making mistakes is acceptable, having goals is good, and learning English can be fun (p. 2). So, even though vocabulary acquisition is a learner-centered activity in regards to studying and being disciplined to set goals, when done in collaboration with peers students may enjoy the activity more, learning more vocabulary in the end. Understanding that vocabulary learning is an ongoing process, that learning new vocabulary through context, and learning new vocabulary can be done cooperatively are what guided the classroom practices below.

Vocabulary Development in Classroom Practices

Context

The course in which vocabulary development in line with the above theoretical concepts was implemented was EFP 1310 College Listening Skills, an advanced course in listening and note-taking. It stressed comprehension of classroom discussions and lectures, as well as a variety of other media presentations. The class was taught by two instructors: Dr. Hanh Nguyen as the lead teacher and myself as a student teacher. Together we worked to develop the students' vocabulary in class. In this class there were

eighteen students, eleven females and seven males. Of the eleven females, seven were Taiwanese, one Belarusian, one Japanese, one Chinese, and one Indonesian. Of the seven males, three were Korean, two Japanese, one Taiwanese, and one Serbian. One male student was repeating this class for the second time. For two of the males and three of the females, this was their first English language class at a university. The average number of years spent studying English in the student's home country was 6.2 years and in the US, just over one month.

Vocabulary Development Activities
As mentioned earlier, Nation and Waring stated that learners need to encounter a word numerous times in order to use it properly. Building vocabulary is an ongoing process, and I believe good progress was made during the semester. The biggest obstacles encountered were the limited time and the number of words students had to learn in order to be well-prepared for undergraduate studies. Students now understood the importance of a large vocabulary and the amount of work they needed to put forth in obtaining it. In order to build the students' vocabulary, and help close the vocabulary gap as much as possible, we carried out the following steps: (a) Students assessed their present vocabulary level, a starting point had to be determined so progresses could be assessed, (b) students learned three new words each week, getting the students motivated and changing their attitude on learning vocabulary, (c) the teachers created an academic word list (AWL) extracted from the lectures and the textbook, developing vocabulary that the students would learn in the context of the lectures and use in the class discussions that followed, and (d) the students assessed their vocabulary at the end of the semester to see if they made any progress. To see their progress would motivate the students to continue the learning process.

To begin with, the students needed to assess their present vocabulary level. To do this, students visited http://www. lextutor.ca and took a vocabulary test to determine their present level. Sevier (2004) explained that *Test Your Word Level* is adapted for the web from Paul Nation and Batia Laufer's word levels tests, developed for learners with vocabularies of different sizes and types, with the 1,000 to 10,000 most frequent English words (p. 2). At the 1,000 word level, the items are multiple-choice and based on either pictures or short sentences. Learners check their answers and move on to a second test at a higher level, (80% or higher to move up), or moved down to a lower level, depending on their score. Assessing the student's vocabulary level in the beginning of the semester was needed to set a starting point. It also helped students understand where they were and where they needed to go in order to do well in undergraduate studies. All of the students assessed in the EFP 1310 class scored in the 2,000 level except three students who were assessed at the 3,000 level. This means that their vocabulary level was between 2,000 and 5,000 word families, whereas their native-speaking counterparts would have around 15,000 word families.

The second activity required students to learn three new words each week. The first time this class was taught each week students were required to write three new words in a journal along with a definition for each word and three example sentences using the word in context. They could pick these words from three sources: the next level up from the website where they had their level assessed, words from their textbook, and words from the AWL provided by the teacher. The website informed the students at what level they were assessed; then the students picked words from the level above that, studied them, and hopefully did better on the exam at the end of the semester. For example, students who were assessed at the 2,000 level would then study words from the 3,000 level to improve their vocabulary. If they did not want to do this, they could choose vocabulary words from the new vocabulary section listed at the beginning of each chapter of the textbook. Their last choice, if they did not wish to do the other two, was the AWL provided by the teachers. This list was prepared by examining the lectures in the text-

book, pulling out the academic words, and putting them on a piece of paper to be given to the students. Some of the words on this list were the same as the words from the new vocabulary section of the textbook.

Getting the students to learn three new words each week posed the most difficult task. Students did not have these lists checked every week, but at the mid-term and final exams, so a few students quickly created these books just before this time period. At first it was planned to have each student post his/her three new words on WebCT so they could be checked more regularly and other classmates could learn from other student's words. After this plan was put to a vote in class, the students decided to place their vocabulary words in a notebook and turn the notebook in before the mid-term and final exams. Learning from mistakes, we feel that it would have been better to check their vocabulary notebooks weekly, or have students post their new words on WebCT to help them acquire more low-context vocabulary, thus creating an even better activity for the class.

To overcome these weaknesses, when I had the opportunity to teach the class again in the following semester (now as the sole teacher), students were required to post their three new words on WebCT instead of in a journal. They could choose the words from the same areas described above, but each week instead of writing them in a journal they needed to post them on WebCT for the teacher and classmates to see. The first reason was because the previous semester some students did not keep their journal regularly, only making the journal the day before it was due. The second reason was so classmates could learn from each other, near peer role modeling, and the teacher could use the words students were posting as part of the vocabulary section of the test. Students seemed to have taken a stronger interest in learning new vocabulary by transferring words they need to learn into a vocabulary journal or flash cards to help them study. Whether this process is successful or not will be seen at the end of the semester when the students take the vocabulary exam again to see their progress.

The third activity was to provide lists of words for the AWL that appeared in the lectures in the textbook. Since EFP 1310 is an advanced course in the EFP program, and after this course most students enter undergraduate studies, the AWL is the appropriate list for this class. If it were a lower level class, lower levels of vocabulary would have been used. By pulling out the contextualized vocabulary from each lesson, we were hoping not only to increase the student's vocabulary but also make the lectures more comprehensible. I helped with scanning and running each lecture through "RANGE" a software program developed by Nation (2005). This program allowed me to create a contextualized AWL specifically for our class, focusing on the vocabulary from the given lectures. Nation and Waring (1997) developed three levels of vocabulary lists: level 1 is the first 1,000 word families, level 2 is the second 1,000 word families, and level 3 is the university word list (UWL) or AWL (p. 14). RANGE is used to create word lists based on frequency and is useful for seeing what low frequency words are contained in a paper, technical information note, or a text aimed at foreign readers. It creates three ready-made base lists. Figure 1 shows an example of a lecture that was run through RANGE. The first includes the most frequent 1,000 words of English. The second includes the next 1,000 most frequent words, and the third includes words not in the first 2,000 words of English but which are frequent in upper secondary school and university texts from a wide range of subjects. All three base lists include the base forms of words and derived forms; thus, the first 1,000 words consist of around 4,000 forms or types.

Figure 1. An example of RANGE analysis output (see the Appendix for the sample text of this analysis)

Tables

Table 1

Three Base Lists Created from RANGE Software Program

Types found in base list one

Type	Range	Freq	F1
a	1	9	9
all	1	2	2
also	1	1	1
and	1	3	3
bank	1	2	2
business	1	13	13
employees	1	2	2

Types found in base list two

Type	Range	Freq	F1
competition	1	1	1
critical	1	1	1
hurt	1	1	1
lot	1	3	3
rush	1	1	1

Types found in base list three

Type	Range	Freq	F1
affect	1	3	3
community	1	2	2
factors	1	2	2
financing	1	1	1
investigate	1	1	1
obtain	1	1	1
project	1	1	1
range	1	1	1
require	1	1	11

After scanning each lecture and running it through the program, we pulled out only the level 3 words, the AWL, and put them into a word document. Before each lecture, the teacher printed out the appropriate AWL and gave it to the students to prepare them for the lecture. This practice was inspired by the notion that new words are best learned in context, or as Sternberg claimed, "Vocabulary using context is the most effective, or even a relatively effective, way of teaching that vocabulary" (p. 89). Since students had the chance to study and understand the vocabulary before listening to the lecture, we aimed to help them to concentrate on the content of the lecture and hear the vocabulary being used in context. Extracting the high context vocabulary from the lectures was a great way to focus on the content words from the lessons so students would be using them regularly in class, hopefully committing them to long term memory. It also saved the teachers a lot of time by not having to read the lectures and pull the vocabulary out. This allowed more time to focus on presentation of the lessons and vocabulary.

The final activity took place at the end of the semester when students revisited the website, http://www.lextutor.ca, and had their vocabulary assessed a second time to see if it had grown. All of the students scored at the same level from the beginning of the semester, except one student who scored higher. The use of the same exam at the end of the semester gave validity to their scores since the level of the test did not change. Even though most students scored at the same level in the end, I do not believe that the vocabulary learning activities done in class failed. One level contains roughly 4,000 word forms and types, so a student may have tested into the lower end of level 2,000 at the beginning of the semester, and tested at the same level but toward the higher end at the completion of the semester. Since the test does not show this in more detail, it is difficult to know if the students have or have not made some progress.

Conclusion

Vocabulary acquisition has become an extremely important part of second language acquisition, and teachers cannot rely on students acquiring the needed vocabulary just through interaction with the language. I always understood that vocabulary was important in second language learning, but understanding what words to teach and in what manner have helped me to better plan my lessons so students can acquire the necessary vocabulary. Students need to be taught vocabulary in context so that they can retain the words and use them more frequently. Learning how the computer can help to develop word lists from the student's textbooks has enabled me to focus on the words that were necessary in each lesson. Allowing the students to use the new vocabulary during the course of the lesson should help them retain it in their long term memories. Using a computer program to assess the student's present vocabulary level also helped me to see what words needed to be taught to help students progress or catch up. In the end, however vocabulary is presented to the students, like all materials, it must be in appropriate situations, giving them the chance to use the vocabulary and build upon their language repertoire.

References

Cobb, T. (1999). The compleat lexical tutor (Version 4.5) [Computer software]. University of Québec at Montréal.

Maiguashca, R. U. (1993). Teaching and learning vocabulary in a second language: Past, present and future directions. *The Canadian Modern Language Review, 50*(1), 83-100.

Murphey, T., & Arao, H. (2001). Reported belief changes through near peer role modeling. *TESL-EJ, 5*(3). Retrieved June 1, 2006, from http://www-writing.berkeley.edu/TESL-EJ/ej19/a1.html

Nakata, T. (2006). Implementing optimal spaced learning for English vocabulary learning: Towards improvement of the low-first method derived from the re-activation theory. *The JALT CALL Journal, 2*(2), 3-18.

Nation, P., & Waring, R. (1997). Vocabulary size, text coverage and word lists. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description*, *acquisition and pedagogy* (pp. 6-19). Cambridge, UK: Cambridge University Press. Retrieved March 3, 2006, from http://www1.harenet.ne.jp/~waring/papers/cup.html

Nation, P. (2005). *Range and frequency instructions* [Computer software]. Retrieved March 3, 2006, from http://www.vuw.ac.nz/lals/staff/paul-nation/nation.aspx

Nation, P. (2005). Teaching vocabulary. *Asian EFL Journal, 7*(3), 47-54.

Sevier, M. (2004). The compleat lexical tutor, v.4. *TESL-EJ, 8*(3). Retrieved May 26, 2006, from http://www-writing.berkeley.edu/TESL-EJ/ej31/m2.html

Sternberg, R. J. (1987). Most vocabulary is learned from content. In M. G. McKeown & M. E. Curtis (Eds.), *The nature of vocabulary acquisition* (pp. 89-105). Hillsdale, NJ: Lawrence Erlbaum.

Yongqi Gu, P. (2003). Vocabulary learning in second language: Person, task, context and strategies. *TESL-EJ*, 7(2). Retrieved October 3, 2006, from http://www-writing.berkeley.edu/TESL-EJ/ej26/a4.html

Appendix

Sample text for RANGE analysis example
Starting Your Own Business

When starting your own business, it is important that you put a lot of thought into what you are going to do. 60-85% of all business will fail, so the first point is to start with something you know well. Study what the kind of store you want to open. If it is a retail store, then look around. Do you see someone else selling what you plan to sell? How many possible competitors do you see?

The next step to plan: There are two reasons for business planning. One is that it makes the entrepreneur investigate where he will open his business and what factors could affect his business. Second, a business plan will also help the entrepreneur obtain financing from a bank. All banks will require a business to make sure enough thought and planning have gone into the project before the banks gives any money.

Looking at the first point: By looking at your possible market from a business person's point of view, you may look with a more critical eye. You don't want to rush into something where you could lose a lot of money. Possible factors that could affect your business range from employees, to possible growth of the community, to your competition. If there are not a lot of people living around your business, where will your employees come from? Is the community going to grow where you plan to open your business or is it shrinking? If it is shrinking will that hurt your business?

The second point is more for the bank. They like to see that you have thought through many of the possibilities that could affect your business. They want to see that you know what your expenses will be, how well you know your product, and how much money you think you can make selling your product.

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