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The Vocabulary Notebook as Vehicle for Vocabulary Acquisition**Introduction**

This past semester I conducted my dissertation research at Penn Valley Community College (PVCC) in Kansas City, Missouri. PVCC is located in the urban core of Kansas City, Missouri, and its academic English program serves primarily refugees and immigrants, as opposed to the international students that we work with at the Applied English Center. I chose to work with the students at PVCC because my roots as an ESL teacher are within the refugee and immigrant communities, and I enjoy maintaining my connection with these very interesting students.

My research is a mixed methods, design experiment. Design research is relatively new to the field of education (Bradley & Reinking, 2011; Reinking & Bradley, 2008). It involves implementing a theoretically solid intervention into variant contexts (Bradley & Reinking, 2011; Reinking & Bradley, 2008) for the purposes of seeing how the intervention plays out differently in these different contexts. As the intervention is implemented and carried out, researcher(s), classroom teacher(s) and students take note of what is working well and what is not, and modify the intervention on a constant and evolving basis in line with unique needs of the learners and teachers in a given context. As such, design research is considered to be both rooted in and generative of theory.

Quantitative data were collected via a pre- and post-test using the Vocabulary Levels Test (VLT) (Nation, 1990; Schmitt, Schmitt & Clapham, 2001). The VLT assesses the overall size of a learner's vocabulary at the two, three, five, and ten thousand word family levels. It is estimated that a university student needs eight to nine (Schmitt, Jiang & Grabe, 2011) or even ten (Hazenberg & Hulstijn, 1996) thousand word families to be successful in university study.

Qualitative data were collected via interviews with the teacher and a focal group of five students, pre- and post-semester surveys and focus groups, classroom observations, and a reflective piece written by students at the end of the semester on their use of the vocabulary notebook.

The intervention consisted of learning to use a vocabulary notebook. Using a notebook, students have a place to collect data about words that they could then study from. The bulk of the notebook consisted of a section for a personal dictionary. Each week students chose ten words to research, finding definitional and contextual information about each, as well as collocations and other words in that word's family. A copy of a personal dictionary page can be found in Appendix 1. The remainder of the dictionary consisted of blank pages on which students could map the connections between words (word mapping) as well as conduct semantic feature analysis of groups of words. An example of each of these is included in Appendix 2.

The theoretical basis for much of the intervention can be categorized into a few broad categories. First, the connection between vocabulary and reading comprehension is solid. Vocabulary size and knowledge significantly predict reading comprehension (Blachowicz, Fisher, Ogle, & Watts-Taffe, 2006). Schmitt, Jiang, and Grabe (2011) find an almost linear relationship between vocabulary size and reading comprehension, at least in instances where readers have enough vocabulary to effect more than minimal comprehension. Readers who understand 90% of the words in a given text demonstrate 50% overall

comprehension of that text, while those who have 100% vocabulary coverage demonstrate 75% overall comprehension of the text. Readers did not demonstrate dramatic improvement at any point between 90% and 100% coverage; instead, overall comprehension increased as vocabulary coverage increased. This research suggests that vocabulary size, though not sufficient in and of itself, is a critical precursor to text comprehension.

Second, the idea of what it means to know a word is more complex than just knowing a definition of the word. Nation (2001) and Zimmerman (2009) consider the depth of knowledge that one might have regarding a single vocabulary item. Words have denotative and connotative values (thin versus skinny), vary in strength (murder versus butchery), co-locate in a variety of ways (put up versus put up with; back and forth, but not forth and back), are constrained grammatically (many tables but not much tables), have potentially misleading morphological structure (unbutton but not unravel), exist in variant forms (consider, consideration, considerable), and are appropriate or not to particular contexts (shut up versus be quiet). In addition, Qian (2000) finds that while vocabulary size (breadth) is highly correlated with reading comprehension, depth of knowledge about the words themselves makes a unique contribution to reading comprehension that cannot be attributed to vocabulary size alone.

Finally, explicit, in-class vocabulary instruction, while helpful and necessary, is slow and inefficient in building the vocabulary learners need if they are to successfully navigate academic text. In-class vocabulary learning often focuses on content-specific words, but a significant amount of general academic vocabulary will also create difficulties for ELLs. While teachers cannot teach all the words learners need to know, we can teach strategies that will help them uncover word meanings independently.

A number of independent vocabulary learning strategies can be taught in the language classroom. Learners skilled in the efficient and complementary use of electronic translators and English-only dictionaries (Schmitt & Schmitt, 1995; Zimmerman, 2009), derivation of word meaning from meaningful context (Folse, 2004), application of morphemic analysis (Baumann, Font, Edwards, & Boland, 2005; Zimmerman, 2009), and maintenance of a vocabulary notebook (Folse, 2004; Fowle, 2002; McCrostie, 2007; Schmitt & Schmitt, 1995; Walters and Bozkurt, 2009) are able to pursue word meanings in a more personal, purposeful way, thus allowing for the vocabulary development necessary for success in academic contexts. Thus, vocabulary instruction should focus on teaching these vocabulary learning strategies explicitly.

At PVCC, I introduced the vocabulary notebook strategy (VNS). The use of a vocabulary notebook both for collecting information about new words (depth of knowledge) and learning word meanings over time (retention) (Folse, 2004; Nation, 2001) allows learners to choose personally meaningful words to investigate and encourages the development of word consciousness, which Graves (2006) defines as awareness of and interest in words and their meanings (p 119, emphasis in the original). Once learners decide to enter a word in their notebooks, that word gains salience, increasing the likelihood that it will be noticed on future encounters. Because learners return to the vocabulary notebook repeatedly, adding newly acquired information about their words over time, they get the multiple (Nation, 1990) exposures to each word necessary in order for full acquisition to occur.

While the vocabulary notebook strategy requires active engagement with words, forces a number of exposures, and requires the deep processing of words necessary to really come to know a word, researchers have identified some limits to its implementation. Although McCrostie (2007) considers the VNS a step toward independent vocabulary learning, he finds that learners are poor at choosing words to pursue. Each unknown word was considered by learners to be of equal importance, irrespective of frequency and potential for use. Teacher input, at least in the initial stages, was necessary for helping learners develop criteria for choosing the words that would most benefit them.

Schmitt and Schmitt (1995) also called for a high level of teacher involvement in the vocabulary notebooks. First, they suggest that teachers take an active role in selecting words that students might want to include in their notebooks, taking into account both frequency data and potential for use. Next, they recommend that teachers review the notebooks periodically to ensure that students are not collecting erroneous data about words. This step allows instructors to gain insight into the types of errors that their students are making at the same time that it encourages learners to be wary of jumping to conclusions about words too quickly. Finally, they encourage instructors to privilege the notebooks by incorporating them into classroom activities.

Fowle (2002) notes that, via VNS, learners develop word consciousness and become active in their pursuit of words and knowledge about words; in addition, he found that learners developed more awareness about themselves as learners, as well as a sense of what strategies work best, by comparing their notebooks with those of their classmates. Learner autonomy, thus, was a peripheral but very positive effect of the vocabulary notebooks.

Finally, use of a vocabulary notebook in the classroom as an independent assignment actively engages learners in word study. Walters and Bozkurt (2009) found that learners who used them showed gains in both receptive and controlled productive use when compared to learners in the control group; in addition, treatment group learners used words that they had researched for the notebooks in their writing more frequently than their control counterparts. Students interviewed after the treatment period enthusiastically acknowledged the usefulness of the notebook in gaining vocabulary and reported enjoying the in-class activities that were centered on the notebook. Unfortunately, they did not think themselves likely to continue using a notebook on their own; they tended to frame the notebook as something only the really good students, who were really interested in learning a language, would do, and apparently they did not count themselves as part of this group. The vocabulary notebook was time consuming and very hard work, and those factors seemed to outweigh its usefulness for students. The participating teacher in this study, who found the VNS to be very useful in developing student vocabulary, was worried about the amount of class time it took. Although her students clearly enjoyed the class activities incorporating the notebooks, she did not think many of her students would continue the notebook once it was no longer assigned for a grade because of the intensity of the work

Over the course of the spring semester at PVCC, we did a wide variety of in-class activities including exploring ELL dictionaries to discover the wide variety of word data contained there, making and justifying connections between words (word mapping), and examining sentence context for clues to correct usage. For homework each week, students were doing a variety of assignments, including researching new words, creating word maps, and analyzing words for specific meaning features.

Preliminary Findings

Although data analysis is only partially complete, a number of themes are fairly clear at this point. First, although my focus was on academic language, the language of school, the students were far more interested in the vocabulary of their lives. When I asked during the focus group where they found words that they needed to know, they said at work or their children's school or on television. One young man who had attended two years of high school in Kansas City even distinguished between the vocabulary for daily living versus that of school. Another student who had always kept a vocabulary notebook, consisting of the new word and a translation, said that he kept school words in the notebook that I provided, but he added work and home words to his own notebook. In the beginning of the semester, students were asked to choose their words for study entirely on their own, and the majority of the words were more related to daily life than any of the vocabulary they were being exposed to in the academic setting of school.

Second, the vocabulary notebook as I gave it to the students was frustrating to them. Focal students complained that there were too many boxes. The structure I provided was a constraint that they found difficult to work with. One focal student, new to the academic study of English, had never kept a vocabulary notebook before and was very pleased with the notion of keeping track of her words. She came up with her own system that involved information from a number of sources, multiple tries at using the word correctly, and tips that her native speaking boyfriend provided her about the word.

In addition, it became very clear early on that students were able to work with the definitional information, but they could not use the words. We began looking at multiple contexts in which the word was used for clues as to usage. It was quite interesting because they really began to understand the kinds of things that you have to know about a word, particularly collocations and word families, if it is to be used correctly. Prior to this point, the students had been quite resistant to these ideas, and did not consider collocations or knowledge of word families at all useful in coming to know a word, but once we began examining contexts in which words actually occur, they realized the necessity of attending to them if they were to be able to actually use words correctly.

Perhaps unsurprisingly, students spoke of the stigma of not being proficient in the language, mentioning repeatedly that they wanted to have credibility, to be taken seriously, to be respected. The lack of vocabulary seemed to concern them far more than grammar, mostly because they talked about grammar as important in school, for writing, but did not necessarily see it as hindering their spoken communication. One focal student said that no one used correct grammar in social situations, so it did not matter, but if you did not have the words, people would know that you did not know things. This is interesting in light of student frustration with knowing the words but not being able to use them. In terms of the stigma attached to non-native proficiency, students saw it mostly in terms of a vocabulary issue.

Finally, when asked about what they might do if they encountered a word they did not understand, students spoke of strategies that would allow them to bypass the word. They could skip it, they could use another word that they knew, or they could use gestures. I could not get them to talk about the possibility of learning the word for future use, or their role in that endeavor. In my observer's comments I indicated that they seemed completely unable to see themselves as active, strategic participants in their own learning.

Conclusions and Implications for Practice

The vocabulary notebook, while not the tool for learning vocabulary I had envisioned, seemed to serve instead as a vehicle for talking about learning vocabulary and what constituted effective vocabulary study. It provided a forum for a great deal of conversation about words and what was important if you wanted to know words and remember words and use words. The students encountered a great deal of vocabulary theory, understanding the concepts of breadth and depth of knowledge. They came to realize the notion of deep processing in order to really own a word and the contextual analysis that has to happen if a new word is to be used productively. Although all of the focal students said that they would continue to use a notebook for vocabulary study, only two of the five told me that they would continue to use the notebook I had provided for them. All of the five, however, indicated that they had changed the kinds of information that they collected about new words and had strategies well in place to be better learners and users of new words.

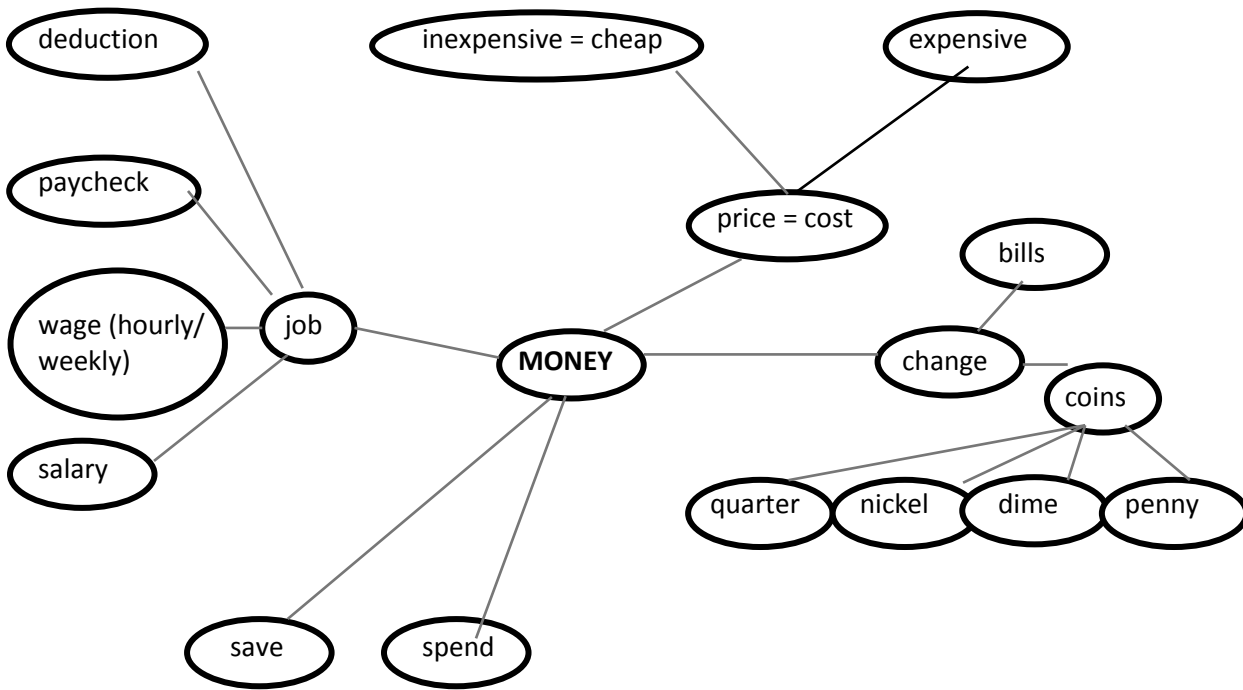
We use a vocabulary notebook with the level one students here at the AEC, and we do many of the same types of activities. Because the level one students have so much less language than the students at PVCC, we are not able to have the rich conversations about words and word learning that the students at Penn Valley could engage in. That concerns me. We spend a good deal of time getting AEC students to understand how to use the vocabulary notebook, and it takes a few weeks into the semester until they can work independently on gathering word data that is meaningful and useful to them. Although we do many

of the same activities, we cannot have the explicit discussion about processes that we are engaging in and the reasons behind them. For example, both the PVCC students and the level one students do word mapping. With the Penn Valley students, we discussed the notion of deep processing of words as necessary in order to really gain a sense of the word, and they came to understand that definitional information was not enough. But we cannot have that same discussion in level one, and so the lessons learned, if any, are much more implicit. In addition, word mapping is generally making and justifying connections among words. Because we all see things slightly differently, students often see connections among words that I never would have thought of, but if they can justify their connection, all is well. With AEC level one students, justifying their connections is very difficult, and often they are unable to tell me why they think the words are semantically related. There is no doubt, though, that they are developing some strategies for learning vocabulary independently. Whether they continue to use them after moving on is questionable because of the rather arduous nature of the task.

Appendix 1

New Word:	Translation	POS
Definition:	My sentence:	
Other information		
New Word:	Translation	POS
Definition:	My sentence:	
Other information		
New Word:	Translation	POS
Definition:	My sentence:	
Other information		
New Word:	Translation	POS
Definition:	My sentence:	
Other information		

Appendix 2: Semantic Mapping



Appendix 2 Cont.: Semantic Feature Analysis

Noun ↓ Adjective →	reasonable	severe	artificial	terrible	healthy	Add an adjective
price	√	N/A	√	√	N/A	
adults	√	√ (= mean)	√ (with others)	√	√	
material	√ (price, quality)	N/A	√ (synthetics)	√ (ugly, poor quality)	N/A	
Add 5 nouns						

Appendix 2 Cont: Semantic Feature Analysis cont.

Vocabulary	People	Animals	Plants	Things
laugh	√	N/A (monkeys sound like)	N/A	N/A (baby doll)
cloudy	N/A	N/A	N/A	√ (the weather, the sky, a piece of glass)
relax	√ (body and mind)	√ (body only?)	N/A	? a car engine idles when stopped in traffic
alone	√	√	√	√
lonely = alone and sad	√	N/A	N/A	N/A
delicious				
funny				
play				
Add 2 more nouns, 2 more verbs, 2 more adjectives				

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