

The Role of Dictionary Strategy in Passive Vocabulary Knowledge Acquisition of Net Generation Students

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Received: October 1, 2013

Accepted: October 24, 2013

Published: October 24, 2013

doi:10.5296/jsel.v1i1.4444

URL: <http://dx.doi.org/10.5296/jsel.v1i1.4444>

Abstract

The paper reports and discusses the findings of a study conducted to assess the role of dictionary strategy in passive vocabulary knowledge acquisition of the Net Generation students. The Net Generation students are students who consider computers a natural part of their environment. Passive vocabulary knowledge is usually defined as what one needs to know about a word in order to use it in reading and listening. The dictionary strategy is made up of three sub-strategies namely using the strategy for comprehension, the extended dictionary strategy, and the looking-up strategy. Vocabulary Learning Questionnaire is used to measure the preference level of the dictionary strategy as one of the vocabulary learning strategies. Simultaneously, the Net Generation students' passive vocabulary knowledge is assessed using the Vocabulary Levels Test. 360 university students aged between 18 to 21 years old are involved. Though generally the dictionary strategy is preferred by the students as one of their vocabulary learning strategies, it has a negative correlation with the passive vocabulary knowledge. Out of the three sub-strategies, using dictionary strategy for comprehension and extended dictionary strategy establish negative correlations with the passive vocabulary knowledge. Nevertheless, the looking-up strategy has a positive correlation. Further discussion focuses on the possible reasons why guessing strategy does not work for them.

Keywords: Dictionary strategy, Passive vocabulary knowledge, Net Generation students

1. Introduction

Vocabulary knowledge is the most important component in learning second language (L2) (Laufer, 1997). To increase one's L2 vocabulary knowledge, a dictionary is a great companion. When L2 students come across a word they are not familiar with, a dictionary helps them by defining the word and giving them examples of its use in a sentence. While they are looking up the word, they have an opportunity to learn a number of related words.

Presently, researchers have paid more attention to examining the effectiveness of dictionary use since teachers nowadays are dealing with a new group of students known as Net Generation students. Net Generation students consider computers a natural part of their environment; the virtual world is an extension of their real world. 20% of college students in 2002 began using computers between the ages of 5 and 8. By the time they were 16 to 18 years old, all of today's current college students had begun using computers and the internet was common (Jones, 2002). This generation has seen video games become increasingly engaging and "real"; these students grew up on Nintendo, likely used the Xbox 360 system, and probably have a Wifi system in their dormitories. As a result, these students have the technical savvy to negotiate virtual environments with ease, making virtual simulations practical for educational purposes.

This study is motivated by the need to further examine the Net Generation students' perception in using dictionary to enhance their vocabulary knowledge. Second, using this foundation, this paper will then describe the efficacy of the dictionary strategy to them.

2. Literature Review

This section discusses previous studies on dictionary use, passive vocabulary knowledge, and who the Net Generation is.

2.1 Studies on Dictionary Use

Using dictionaries while trying to master English vocabulary sometimes would lead to inefficient learning (Knight, 1994) and research indicated that this might always be the case. Luppescu and Day (1993) in their study found out that English L2 learners who were allowed to use dictionaries took twice the time to complete the reading task compared to the controlled group who was not using the dictionaries. More proficient learners showed little or no gain when using dictionaries in studies administered by Bensoussan et al. (1984) and Knight (1994), proving that the extra time used to look up words in dictionaries did not help much to improve their vocabulary knowledge. One concern was that the time taken to consult dictionaries may interfere with L2 learners' short-term memory thus prevented them from focusing on the real task as a whole (Bensoussan et al., 1984; Knight, 1994). Furthermore, locating wrong dictionary entry might also lead to miscomprehension (Bogaards, 1998; Tang, 1997).

Nevertheless, L2 learners were more likely to find the correct definitions when consulting dictionaries than guessing the meaning of unknown words from context (Bogaards, 1998). In fact, many studies have shown that dictionary use could lead to lexical development; Studies done by Summers (1988), Luppescu and Day (1993), and Knight (1994) were some of them. Summers' study found that L2 English learners using a dictionary scored significantly better on both post-reading comprehension and vocabulary tests. Luppescu and Day (1993) revealed that in a study of nearly 300 Japanese learners of English, the experimental group with access to bilingual dictionaries while reading scored significantly better than the controlled group on a vocabulary post-test. Meanwhile, Knight (1994) discovered that 112 learners of Spanish who had access to a dictionary scored higher on post-reading comprehension and vocabulary tests.

Applying new technologies in an attempt to enhance lexical competencies such as utilizing handheld electronic dictionaries, online dictionaries, or electronic glosses might also give impacts to the efficacy of dictionary use. Less time taken and less distractions to readers are some of the positive effects gained when referring to an unknown words through an electronic link. However, there was no correlation between the time needed to complete the reading task and the number of words looked up through electronic glosses (De Ridder, 2002). Though in a study conducted by Koyama and Takeuchi (2004) discovered that users of electronic dictionaries looked up more words in less time than users of printed dictionaries, the greater number of look ups did not lead to increased comprehension.

L2 learners have different attitudes towards using dictionaries in acquiring English vocabulary. Different studies produce different findings regarding this issue. Chow (2001) reported that pre-university students were positive in using English-English dictionary though they were unable to make full and proper use of such dictionary as they only consulted it for

definitions. Martinez (2008), however, reported that her subjects would rather use bilingual dictionaries because monolingual dictionaries were time consuming and were a nuisance to the eyes during look-up.

On the other hand, Tan and Zarie (2011) maintained that L2 dictionary users tend to show negative attitudes towards using dictionaries when they were unable to conceptualise the meaning of a word. Zhang (2001), nevertheless, discovered that more proficient learners used a variety of vocabulary strategies, rather than depending exclusively on dictionaries.

2.2 Passive Vocabulary Knowledge

Nowadays both passive and active use of English in communication becomes more and more prevalent. Modern international communication, especially via the internet, requires both passive and active use of English. We not only read or listen to information passively but also react to it actively either through speaking or writing.

Learners' passive vocabulary are the words that they understand but are not yet in use. This can be compared with active vocabulary, which are words that the learners understand and use in speaking or writing. The active and passive vocabulary of a learner changes constantly. They start using words, try new meanings, forget words, abandon words that have no use, revise words, etc.

In this study, the breadth of vocabulary knowledge is defined as vocabulary size, or the number of words and meanings of which a learner has at least the minimum knowledge (Qian, 1999). Minimum knowledge of a word's meaning is defined as the ability to recognize its most frequent meaning. The total number of words a student knows in this way is the learner's breadth of vocabulary knowledge or his/her vocabulary size.

Read (2004) pointed out that Nation's Vocabulary Levels Test (VLT) is still the most reliable vocabulary breadth measurement. The VLT was first designed by Nation (1983) as a diagnostic vocabulary test. It has been revised several times. The latest version was revised by Schmitt et al. (2001), which has been properly validated quantitatively and qualitatively.

Investigating learners' vocabulary size can be of substantial value to language research and pedagogy. The information indicates the realistic situation of a given lexical syllabus and what would constitute an optimal syllabus (Laufer, 1998) which will, in turn, guide the material design, the testing, the teaching and the learning.

2.3 Who is the Net Generation?

"If you look back over the last 20 years, clearly the most significant change affecting youth is the rise of the computer, the Internet, and other digital technologies. This is why I call the people who have grown up during this time the Net Generation, the first generation to be bathed in bits" (Tapscott, 2009).

The above quotation clearly indicates that computers or other forms of advanced technologies are actually a natural part of the environment for the Net Generation.

Does spending so much time in front of a screen- not a TV but an interactive screen- give certain effects to them? Back in the 1950s, Marshall McLuhan argued that it does. This initiated Erica Micheal and Marcel Just of Carnegie Mellon University did a brain scan to test McLuhan's hypothesis. It turned out that he was right. "Listening to an audio book leaves a different set of memories than reading does" and "A newscast heard on the radio is processed differently from the same words read in a newspaper", said Micheal and Just (Tapscoff, 2009: 104).

Therefore, would information absorbed on the internet have different impact than information obtained by reading the newspaper? A 2006 study of Net Geners certainly suggested it does. Researchers played the same newscast in four different ways- as a traditional radio newscast, as an online-newscast played with one click, as an interactive Webcast where you click to get each news item, and as a Webcast that included links for details. Net Geners remembered less from the traditional newscasts- told from beginning to end- than they did from the interactive versions that gave them a chance to click to hear the news or learn more details (Mesbah, 2006).

3. Objectives of the Study

Given the fact that there is a link between L2 learners' dictionary strategy and the acquisition of English vocabulary, the present study intends to find answers to the following questions:

- 1) Among a spectrum of vocabulary learning strategies, which strategies are prominent?
- 2) What are the correlations between the L2 learners' dictionary strategy and their passive vocabulary knowledge?

4. Methodology

This section has two (2) sub-headings namely Sample and Instrumentation.

4.1 Sample

Samples were taken from one of the public universities in Malaysia. The population of the samples at the time of the study was 5413 and according to Wunsch (1986), for a group of 5413 students, at least a sample of 346 is needed to make estimation with a sampling error of ± 5 percent at 95 percent confidence level. Nevertheless, 360 students were chosen. Out of the 360 students, 126 students were from Semester One, 102 from Semester Two, and Semester Three comprised of 132 students.

4.2 Instrumentation

Two research instruments were used to collect the data. They were:

4.2.1 Vocabulary Learning Questionnaire

Gu and Johnson's (1996) Vocabulary Learning Questionnaire, translated into Malay language, was used to elicit students' self-reported vocabulary learning strategies. The questionnaire was pilot-tested where 78 out of 92 vocabulary learning behaviors were selected. The 78 vocabulary learning behaviors were divided into seven major parts namely metacognitive

regulation, guessing strategies, dictionary strategies, note-taking strategies, memory strategies (rehearsal), memory strategies (encoding) and activation strategies. Respondents were then asked to rate each statement on a 4-point scale, ranging from Extremely Untrue of Me (1) to Extremely True of Me (4).

4.2.2 Vocabulary Levels Test

The Vocabulary Levels Test consisted of three (3) different vocabulary tests was used to measure the three dimensions of Malaysian university students' English vocabulary knowledge. The three different vocabulary tests are:

- 1) The Passive Vocabulary Test for passive vocabulary size (Nation, 1990);
- 2) The Controlled Active Vocabulary Test for controlled active vocabulary size (Laufer & Nation, 1995);
- 3) The Free Active Vocabulary Test for lexical richness in free written expression (Laufer & Nation, 1995).

Nevertheless, the scope of this article would cover only The Passive Vocabulary Test. The Passive Vocabulary Test measures receptive vocabulary knowledge and is originally based on words from five word-frequency levels namely the first 2,000 words, 3,000 words, 5,000 words, the University word level (beyond 5,000 words) and 10,000 words. However, in this study only the first four levels were used. Each level was intended to relate to specific vocabulary learning objectives. According to Nation (1990), the 2,000- and 3,000-word levels contained the high-frequency words that all learners needed to know in order to function effectively in English. The 5,000-word level represented the upper limit of the general high-frequency vocabulary that was worth spending time on in class. Finally, words at the University level should help students in reading their textbooks and other academic reading materials.

The Passive Vocabulary Test involved word-definition matching although, in a reversal of the standard practice, the respondents were required to match the words to the definitions. Each frequency level of the test comprised six sections and each section had six (6) words and three (3) definitions. In other words, there were 36 words and 18 definitions at each level. Although there were only 18 words at each level, Nation (1990) argued that 36 words were tested because the respondents need to check every word against the definitions in order to make the correct matches. Words in each level of the test were representative of all the words at that level. In fact, the test was designed to be sensitive to any vocabulary knowledge held by the students. Therefore, each word in the test was distinctly different within each set of words being tested.

The words for each level were also selected on a random basis but with proper nouns and compound nouns were excluded so that the results of the test would give a reasonable indication of what proportion of the total number of words at each frequency level the respondents had some knowledge of. In addition, all the words in each group belonged to the same word class in order to avoid giving any grammatical clues as to the correct definition.

On the other hand, apart from the correct matches, care was taken not to group together words definitions that were related in meaning. The test was intended as a broad measure of word knowledge, without the respondents to distinguish between semantically related words.

5. Findings

5.1 Among a Spectrum of Vocabulary Learning Strategies, Which Strategies are Prominent?

Table 1. How Semester 1, 2, and 3 Students Learn English Vocabulary

VOCABULARY LEARNING QUESTIONNAIRE						
Categories and Strategies	Semester 1		Semester 2		Semester 3	
	M	SD	M	SD	M	SD
Metacognitive regulation	2.85	.32	2.74	.32	2.83	.34
Selective attention	2.90	.34	2.87	.37	2.89	.36
Self-initiation	2.78	.45	2.58	.49	2.74	.49
Guessing strategy	2.92	.30	2.97	.37	3.01	.31
Using backward knowledge	2.99	.29	3.05	.42	3.09	.33
Using linguistic cues	2.76	.43	2.81	.47	2.84	.43
Dictionary strategy	3.00	.29	2.93	.31	2.94	.30
Dictionary strategies for comprehension	3.29	.40	3.21	.42	3.28	.44
Extended dictionary strategies	2.80	.38	2.76	.38	2.75	.35
Looking-up strategies	3.07	.41	2.98	.42	2.94	.37
Note-Taking strategy	2.63	.34	2.58	.38	2.52	.35
Meaning-oriented note-taking	2.60	.38	2.55	.47	2.50	.38
Usage-oriented note-taking	2.67	.44	2.61	.41	2.54	.43
Rehearsal strategy	2.58	.26	2.52	.38	2.48	.29
Using word lists	2.42	.32	2.36	.39	2.31	.32
Oral repetition	2.90	.44	2.82	.43	2.85	.38
Visual repetition	2.69	.38	2.62	.46	2.57	.48
Encoding strategy	2.61	.22	2.70	.22	2.64	.27
Association/ Elaboration	2.61	.32	2.71	.35	2.64	.32
Imagery	2.49	.35	2.60	.37	2.49	.40
Visual encoding	2.54	.39	2.61	.35	2.54	.44
Auditory encoding	2.59	.53	2.64	.47	2.64	.49
Using word-structure	2.69	.36	2.80	.36	2.77	.39
Semantic encoding	2.37	.40	2.54	.41	2.48	.41
Contextual encoding	2.92	.36	2.96	.39	2.91	.40
Activation strategy	2.77	.41	2.77	.35	2.81	.42

Table 1 presents the descriptive statistics of the seven categories of the vocabulary learning strategies and their sub-strategies.

The students seemed to use dictionary strategies widely, both for comprehension and for vocabulary learning. The dictionary strategies consisted of three sub-categories namely using dictionary for comprehension, the extended dictionary strategies such as paying attention to the examples of use when looking up a word in a dictionary, and the looking-up strategies such as trying the entry for the stem if the unknown word seems to have a prefix or suffix. Semester 1 students used the dictionary strategies the most (M= 3.00, SD=.29). They were then followed by Semester 3 (M= 2.94, SD=.30) and Semester 2 (M=2.93, SD=.31). In addition, Semester 1 students were also the most frequent users of dictionary for comprehension (M= 3.29, SD= 0.40) and extended dictionary strategies (M= 2.80, SD= 0.38). They also used looking-up strategies the most frequently to enrich their vocabulary storage (M= 3.07, SD= 0.41). Furthermore, the most preferred sub-strategy was using dictionary for comprehension where its mean scores were the highest compared to the other two sub-strategies- Semester 1 (M= 3.29, SD=.40), Semester 2 (M= 3.21, SD=.42) and Semester 3 (M= 3.28, SD=.44).

5.2 What is the Correlation between the Students' Dictionary Strategy and their Passive Vocabulary Knowledge?

Table 2. Correlation between Vocabulary Learning Strategies and Passive Vocabulary Test

Vocabulary Learning Strategies	PVT	Vocabulary Learning Strategies	PVT
Metacognitive Regulation	.15**	Memory Strategy- Rehearsal	-.19**
Selective attention	.13*	Word list	-.18**
Self-initiation	.11*	Oral repetition	.08
Guessing Strategy	.19**	Visual repetition	-.24**
Use backward knowledge	.17**	Memory Strategy- Encoding	.08
Use linguistic cues	.17**	Association	.14**
Dictionary Strategy	-.01	Imagery	-.07
For comprehension	-.03	Visual encoding	-.005
Extended	-.003	Auditory encoding	-.01
Looking-up	.003	Word structure	.10*
Note-Taking Strategy	-.11*	Semantic encoding	.001
Meaning-oriented	-.15**	Contextual encoding	.16**
Usage-oriented	-.04	Activation Strategy	.14**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

PVT = Passive Vocabulary Test

Findings in Table 2 indicate a negative correlation between dictionary strategy and passive vocabulary knowledge. The Pearson correlation coefficient obtained was $r = -.01$ but was not significant with $p = .81$. Out of the three dictionary strategies variables, two variables namely using dictionary strategies for comprehension ($r = -.01$, $p = .53$) and extended dictionary

strategies ($r = -.03$, $p = .95$) had negative but insignificant correlations with passive vocabulary knowledge. Another variable, the looking-up strategies ($r = .003$, $p = .95$) had a positive but an insignificant correlation. Nevertheless, the correlations were negligible because they were not significant.

6. Discussion

In this article, the first research question identifies that dictionary consultation is one of the most preferred vocabulary learning strategies among the Net Generation students. Why is that so? It is because students always regard dictionaries as a tool which could make vocabulary acquisition more successful. A lot of research does support the statement due to the advantages of dictionaries. For monolingual dictionaries, according to Schofield (1997), some experts regarded them as the most helpful vocabulary references because of the abundant information provided on linguistics and semantics. The advantages of monolingual dictionaries besides providing more information and examples than other types of dictionaries (Fan, 2000), include L2 to L2 translation and sentence samples that L2 learners could utilize directly or paraphrase. A high percentage of teachers did advise their students to use them to assist their vocabulary acquisition (Folse, 2004). Moreover, using monolingual dictionaries may train L2 learners to think and retain words in L2 without mental lexical transformation loss.

As far as using bilingual dictionaries among L2 learners was concerned, Nation and Coady (2001) mentioned one major advantage. They provided meanings in a very accessible way. In addition, Hunt and Beglar (2005) believed that apart from short and easy-to-understand definitions, the strengths of them included (a) they could improve the reading comprehension of lower proficiency L2 learners; (b) they assisted vocabulary learning at all levels of proficiency; (c) they encouraged translation; and (d) they fostered one-to-one precise correspondence at word level between two languages.

The effectiveness of dictionaries has also been proven in several other studies. One recent example was a study conducted by Karbalaee and Talebi (2011) which found students had a better performance in reading comprehension text by referring to bilingual and monolingual dictionary entries. This finding was not new. It is similar to the findings of other studies which showed that learners, who used monolingual or bilingual dictionaries, would consequently improve vocabulary learning and reading comprehension (Hayati & Pourmohammadi, 2005; Laufer & Hulstijn, 2001).

The finding for the second research question reveals the non-existence of a positive correlation between dictionary strategy and the acquisition of vocabulary knowledge. The finding is not surprising because previous research does produce inconclusive and mixed findings. The followings are some of the findings from previous research in support of the present finding.

Nevertheless, Luppescu and Day (1993) besides finding the positive effects of dictionary use also discovered that some items in the vocabulary test given were answered incorrectly by more learners who used a dictionary than those who did not. This seemed to occur for words

where there were many alternative meanings given in the dictionaries. This suggested that learners were not very skillful in searching the word meanings from dictionaries. It was also noted that learners who used a dictionary took almost twice as long to read the passage as learners who did not use a dictionary. One concern was that the time someone took to look up words interfered with their short-term memory and prevented them from focusing on the text as a whole (Knight, 1994). In addition, learners with access to dictionaries sometimes located the wrong dictionary entries, leading to miscomprehension (Tang, 1997). These situations may hamper the process of vocabulary acquisition.

7. Conclusion

Why does dictionary strategy have no positive impact to the students' development of passive vocabulary knowledge though past studies have proven the other way around? A few possible reasons could be put forward. According to I.S.P. Nation (2003) in his book, *Learning Vocabulary in Another Language*, receptive use of a dictionary largely involves looking up the meaning of a word that has been met while reading or listening. Students might fail to turn dictionaries into a useful vocabulary learning tool due to the following reasons.

First of all, the students are unable to get information from the context where the word occurred. The information that they normally fail to extract from the context is the part of speech of the word to be looked up and whether the word is an inflected or derived form that can be reduced to a base form. Furthermore, being unable to guess the general meaning of the word and to decide if the word is worth looking up by considering its relevance to the task and general usefulness is another possible reason.

Not being able to find the dictionary entry is the next possible reason. Some of the constraints faced by dictionary users are not knowing the order of the letters of the alphabet (some dictionaries do not follow a strictly alphabetic order), not knowing the dictionary symbols for the different parts of speech and not knowing alternative places to search such as separate entries, sub-entries, word groups, derived forms, variant spellings and appendixes.

Choosing the wrong sub-entry may cause the students to gain nothing from the dictionary consultation. Once the correct entry has been found there may be a need to choose between different meanings and uses listed within that entry. In order to choose the correct option, information gained from context in which the word occurs is crucial. Mistakes are normally made when the students do not have enough or correct information about the word from the context.

Finally, failing to relate the word meaning to the context and to decide whether or not it fits, is another cause of the failure of dictionary strategy. This step involves adapting the meaning found in the dictionary to the context of the word in the text. Another skill at this step is evaluating the success of the search, that is, does the meaning found fit nicely with the message of the text. Failing to do these two steps may produce a situation where students could not see the relevance of the word meaning to their lives.

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