

The Effect of Text-Based Direct Vocabulary Instruction On Vocabulary Acquisition

Zargham Ghapanchi (Corresponding author)

Ferdowsi University of Mashhad

E-mail: ghabanchi@um.ac.ir

Zahra Eskandari

Teacher Training University of Sabzevar

E-mail: Eskandari62@gmail.com

Ehteram Tabasi

Hakim Sabzevari University

E-mail: Ehteram.tabasi@yahoo.com

Received: February 17, 2012

Accepted: March 13, 2012

Published: March 15, 2012

doi:10.5430/wjel.v2n1p74

URL: <http://dx.doi.org/10.5430/wjel.v2n1p74>

Abstract

The study examines the effect of direct instruction on vocabulary gain through reading texts. Thirty eight intermediate adult learners of English took part in this study. The participants were exposed to two kinds of experimental conditions: reading comprehension (RO) and reading comprehension accompanied by direct instruction of vocabulary (RAD). The Vocabulary Knowledge Scale (VKS) developed by Paribakht and Wesche (1997) was used to measure the participants' quantitative and qualitative knowledge of target words before and after each treatment. The results of the study revealed that both treatments brought about considerable gains in learners' vocabulary knowledge but that the RAD treatment resulted in greater gains.

Keywords: Incidental vocabulary learning

1. Introduction

Lexical knowledge is central to language learning and the development of lexical knowledge occupies an important position in the learner's struggle to master a second or foreign language (Atay & Ozbulgan, 2007). Having a vast store of vocabulary knowledge has been found to be a good predictor of reading comprehension (Laufer, 1998) and to correlate well with writing quality (Lee, 2003). It is also one of the important components of fluency in speech and learners themselves associate progress in language learning with an increase in the number of the words they know (Laufer, 1998). Yet vocabulary has long been neglected in the field of second language teaching assuming that it can be acquired as a byproduct of doing other activities such as reading (Decarrico, 2001; Carter & MacCarty, 1998; Coady & Huckins, 1997; Segler, 2001; Paribakht & Wesch, 1997; Parry, 1991; Zimmerman, 1997). Although most of the words acquired in first language are through extensive reading, the amount of research into its effect on vocabulary acquisition in second language (L2) is sparse; but what there is indicates that extensive reading for meaning and repeated exposure to word can result in acquisition; however, the extent to which it can affect vocabulary acquisition and the amount of vocabulary acquired is still indecisive (Paribakht & Wesch, 1997; Rieder, n.d.). However the research carried out into "incidental" acquisition of vocabulary through reading suggests that the process is slow (Paribakht & Wesch, 1997). So the question posed is that whether instructional intervention and deliberately focusing learners' attention on forms can yield better results in vocabulary growth.

2. Incidental Vocabulary Learning

In vocabulary acquisition, a distinction is generally made between "direct, language focused intentional" and "indirect message focused incidental" vocabulary learning (Nation, 2001; Reider, n.d.). Incidental vocabulary acquisition is

generally defined as “learning vocabulary as the byproduct of any activity not explicitly geared to vocabulary learning” (Hulstijn, 2001, cited in Reider, n.d.). On the other hand intentional vocabulary learning is defined as “any activity geared at committing lexical information to memory” (ibid). So incidental vocabulary acquisition which is considered as learning from context, does not involve any intention and the overall goal of the learner is comprehension of text.

Incidental learning via guessing from context is considered as the most important source of vocabulary learning in both native and second language (Webb, 2007; Laufer, 1991; Ntounis, 2001; Segler, 2001; Zimmerman, 1997; Joe, 1998), and it is an incremental process which depends on the repeated exposure. The more the learner is exposed to a word, the more likely it is that s/he acquires more knowledge of the word (Paribakht & Wesch, 1997; Carter & McCarthy, 1988; Reider, n.d.).

2.1 Some Theoretical Evidence

A hypothesis which support incidental vocabulary learning from context especially through reading is Krashen’s “input hypothesis” (Laufer, 1991). In his theory he claims that linguistic items that are slightly above the learner’s present competence could be acquired. The assumption is that since the acquisition of grammar is affected by such comprehensible input, vocabulary learning will take place in a similar vein (ibid).

Another hypothesis supporting possible development of vocabulary through exposure is “L1=L2 acquisition hypothesis” (ibid). Based on this hypothesis, although the acquisition of second language is not exactly identical to that of first language, there exist some similarities. In the case of L1 vocabulary learning, not even intensive and ruthless vocabulary instruction can account for the vast number of words a native speaker knows. So “learning from context is still a default explanation”. Based on this hypothesis if native speakers have learnt their first language through exposure only, especially exposure to reading, EFL/ESL learners can learn the second language in the same way.

More theoretical and psycholinguistic evidence for necessity of exposure can be found in the literature. For instance based on the “lexical association hypothesis” the first stage of L2 lexical acquisition involves the activation of the links between L2 words and their L1 translation (see Jiang, 2000). According to the hypothesis, as one’s experience in L2 increases, the links between L2 words and their L1 equivalents are more activated and become stronger. As a result of more and more exposure, semantic, syntactic and morphological features of a word are acquired and the word and the concepts it represents, can be accessed without L1 intervention.

2.2 Empirical Evidence

There is some empirical evidence that incidental learning can occur through reading. In a study conducted by Saragi et.al (1987), the subjects were required to study a novel which contained 241 mock words occurred 15 times on average. Then they were given a receptive multiple choice test without prior warning. The results showed that as a result of extensive reading and repeated exposure, the words can be learnt incidentally. The study also revealed that rich context did result in improved guessing but not in improved retention.

Nagy, Herman and Anderson (1985) also concluded that repeated exposure to a word should have some incremental but undetermined effect on vocabulary acquisition. Simcock also found similar results. She found that new vocabulary encountered in the reading input was used productively and accurately by the learners (1993, cited in Nation & Newton 1997).

2.3 Problems Associated with Incidental Learning

Even though there is empirical evidence that incidental learning occurs through reading (Zimmerman 1997) the progress seems to be “slow and haphazard” and meaning focused activities do not seem adequate for the internalization of lexical, semantic, and syntactic features and “relations that underlie accurate production in L2” (Lyster, 1990; Swain,1988; cited in Paribakht and Wesch, 1997).

Another problem associated with incidental learning is that word meanings are often not inferable from context (Jiang, 2000). In other words, all contexts are not equally conducive to making informed guesses or may lead learners to make wrong inferences (Seglar, 2001). As a case in point, Parry (1991) cautioned against the danger of misinterpretation. She conducted a series of case studies designed to address the question of how language learners build their vocabulary through academic reading. One of the results she came up with was that context might sometimes lead to incorrect guesses. The problem is particularly noticeable in ESL and EFL students because “understanding of familiar words is unlikely to match that of native speakers”. On the other hand, as Nation and Coady (1988, p: 101) content, when the context is so reach, it is likely that learner is able to comprehend the text even without knowing the word. Seglar (2001) has listed some other drawbacks of incidental vocabulary learning:

- it is inherently imprecise
- it is time consuming

- it requires accurate word recognition
- the context must be well understood, which in turn requires previous lexical knowledge
- even if it leads to comprehension, it may not translate into acquisition
- it requires good reading strategies
- it is not effective for the acquisition of multiword units

Considering the above mentioned problems, how reading comprehension might be conducive to the acquisition of vocabulary knowledge. In other words, the question raised is that whether direct instructional intervention could support the process of vocabulary acquisition and make it more directed and efficient.

3. Direct Vocabulary Teaching

According to Nation and Newton (1997), there are two approaches to vocabulary teaching: “direct” and “indirect”. In direct approach special attention is given to vocabulary. In this approach a special amount of class time is devoted to vocabulary and includes certain vocabulary activities such as word building, semantic mapping, matching; etc. On the other hand in indirect approach the teacher’s concern for vocabulary learning is not obvious and vocabulary learning is incorporated into communicative activities like listening, reading and information gap activities. Many researchers have acknowledged the role direct vocabulary teaching can have in vocabulary acquisition (Laufer, 1991; Zimmerman, 1997; Paribakht & Wesch, 1997; Nation, 2001; Lee, 2003). Nation (2001) considers it as a complement to incidental vocabulary learning.

3.1 Empirical Evidence

Paribakht and Wesch (1997) found that while reading for meaning alone did result in significant acquisition of L2 vocabulary, direct instruction led to acquisition of even greater number of words as well as more depth of knowledge. Zimmerman (1997) also found similar results. He conducted a research to see whether reading accompanied by interactive vocabulary instruction would result in better acquisition of vocabulary. The result of the study suggested that the group with more exposure to target words in natural context through in-class activities performed better on the posttest. He concluded that reading is a necessary but not sufficient condition for learning vocabulary.

In a research conducted by Lee (2003), it was shown that vocabulary instruction can convert recognition vocabulary into productive vocabulary and help retention. The study also confirmed that word comprehension and recognition does not automatically lead to productive use of vocabulary. He also quoted Dunis (1983) that explicit vocabulary instruction results in greater use of contextually appropriate words as a result of the “word awareness” effect.

So considering the studies have been conducted so far on incidental vocabulary acquisition and on the relationship between vocabulary acquisition and direct vocabulary instruction it could be predicted that instructional intervention might lead to faster and better vocabulary acquisition.

4. Lexical Knowledge

In literature there is still no clear answer to the question of what is meant by learning a word. But there is an agreement among researchers that in addition to quantitative aspects (the number of words) it involves qualitative ones too (Laufer, 1998). As Jiang (2000) contends, knowing a word means knowing about its semantic, syntactic, morphological and formal aspects. Laufer (1991) and Faerch et. al (1984, cited in Lee, 2003) consider word knowledge as a continuum, with the ability to understand word meaning at one end and the ability to use a word in free expression at the other.

4.1 How to teach vocabulary

The role of systematic vocabulary instruction has been emphasized in literature, yet what comprise a systematic method of teaching has not been defined (Lee, 2003). Although various strategies of teaching have been proposed in isolation (like using mnemonics, key word method, listening, reading, learning stems and affixes, and semantic fields), there is still no clear identification of how these strategies could be applied together to make vocabulary learning effective.

Lee (2003) has proposed some psycholinguistic principles to be taken into account while teaching vocabulary which seem to be in line with the above mentioned definition of word knowledge proposed by Laufer (1991) and Faerch (1984, cited in Lee 2003):

1. see the word (visual or spelling representation)
2. hear the word (teacher-modeled pronunciation)
3. understanding the word (providing definitional meaning and part of speech, negotiation, explanation and elaboration of meaning)

4. saying the word (repetition) and
5. using the word in context

Paribakht and Wesch (1997) have also developed a method of vocabulary teaching consisted of five distinct categories representing a hierarchy of mental processing activity as follows:

1- *Selection attention*: the purpose of this exercise is to draw the learners' attention to target words and make sure that they "notice" them. It is the least demanding type of exercise for the learner. Examples include bold facing, italicizing, circling, underlining and providing students with a list of target words.

2- *Recognition*: in this kind of exercise students are required to recognize the target words and their meaning. So a partial knowledge of vocabulary could suffice. Examples include: seeing or hearing the target words and giving its equivalent in L1 or matching the target word with its definitions or synonyms.

3- *Manipulation*: it involves rearranging and organizing given elements to make words and phrases. Examples include: giving derivations of words or using stems and affixes to construct words

4- *Interpretation*: it involves analysis of word meanings in relation to other words in context. Examples include: guessing the meaning of target words in context and recognizing word or phrases that could be substituted in the text.

5-*Production*: the exercise requires the learner to produce the target words in appropriate context. Examples include: answering questions requiring the target words, seeing or hearing the L1 equivalent or an L2 synonym and providing the target words or writing paragraph using the target words.

As it can be seen, the method proposed by Paribakht and Wesch (1997) approximately matches the principles proposed by Lee (2003). It also starts with attention and recognition and ends in production which is in line with the definition proposed by Laufer (1991).

5. The Study

5.1 Statement of the Problem

the fundamental question concerning vocabulary acquisition deals with the most efficient ways through which words can be presented, semanticized (making word meaning clear), and learnt (Monderia & Boer, 1991). As Beheydt (1987, cited in *ibid*) correctly points out "what is notably missing in the teaching of vocabulary is a systematically elaborated strategy for vocabulary acquisition that is based on the findings of linguistics and learning psychology". Given the limitations of decontextualized vocabulary instruction and also the problems associated with incidental vocabulary learning, the question posed is that whether the instructional intervention in the context of meaningful language use can enhance vocabulary acquisition?

5.2 Purpose of the Study

The purpose of the study was to investigate whether reading for meaning accompanied by direct vocabulary instruction, would lead to better acquisition of vocabulary.

5.3 Research Questions

The main question addressed in this study was whether reading for meaning accompanied by direct vocabulary instruction would lead to better acquisition of vocabulary in comparison with an equal amount of learning time devoted to reading additional texts that incorporated the same words and the extent to which each instructional method was effective. Based on the research conducted so far the following directional hypotheses were formulated:

H₁. Students will gain in their knowledge of target words found in the reading texts through text-based direct instruction and also through reading alone.

H₂. Given the same amount of time devoted to both treatments, gains for text-based direct instruction would be greater.

H₃. Vocabulary gains will be both quantitative (reflected in the number of words known to some degree versus not known) and qualitative (increased depth of knowledge of given words).

5.4 Participants

Thirty eight intermediate Iranian EFL learners from an all-girl English institute took part in the study they were all the students of the 7th grade (age 13 to 16). They have all passed their past six levels in the same institute with the same teacher. The grades of their previous term i.e. level 6, was used to determine their level of proficiency. Their score ranged from 85 to 95 (out of a hundred) so they were almost of the same level of proficiency. The native language of all participants was Farsi. They were attending their regular class time twice a week for a period of ten weeks. The book

they were studying during the term was *New Interchange 2* by Jack Richards. Each session lasted for 105 minutes. The last 25 minutes of each session was devoted to the treatments.

5.5 Teaching Materials

Since the main goal of the study was to compare two kinds of text-based instructional treatments :one which was only based on reading comprehension (RO) and the other based on reading comprehension accompanied by direct instruction of vocabulary (RAD), reading texts were the main teaching materials used in the study. A total of six different texts were chosen from different sources such as internet or different reading books. Three of the texts were chosen randomly for (Ro) treatment and three others for (RAD) treatment. Three other texts were composed by the researchers which were an equivalent of the texts chosen for (RO) treatment in which the target words were repeated. The texts were selected carefully based on the previous experience of the researchers to balance for students' background knowledge, interest and text difficulty.

5.6 Procedure

In order to compare students' vocabulary acquisition in both treatments i.e. (RO) and (RAD) treatments, the same students were exposed to both kinds of treatments so they served as their own control group. They attended the class for a total of twenty sessions. Since it was not possible for the researchers to devote all the class time to the treatments- (it was their regular class time and the book they studied was *New Interchanges 2* by Jack Richards) - the last 25 minutes of every session was dedicated to the treatments. In the first and 10th session the pre- and post-test of (RO) treatment and in the 11th and 20th session the pre- and post-test of (RAD) treatment were conducted. One week before and after each treatment the pre- and post-test were conducted. So the same amount of time was devoted to each treatment.

In (RAD) treatment, students read selected texts (a total of three) at home and answered accompanying comprehension questions. This was followed by a series of vocabulary exercises based on the target words from the main reading texts. In (RO) treatment students likewise read selected texts and answered accompanying comprehension questions at home followed by correction in class. After reading each main text, they read supplementary texts composed by the researchers to present again the target words from the main texts. The aim was to further expose the students to the target words.

5.7 Vocabulary Exercises

The vocabulary exercises used in this study were mainly based on the principles proposed by Lee (2003) and those developed by Paribakht and Wesch (1997). Some of the exercises used in the class are as follows:

- giving L1 equivalent
- matching the target words with their definitions or synonyms
- guessing the meaning of target words from context
- understanding the meaning or grammatical functions of the target words
- hearing L1 equivalent or an L2 synonym and providing the target word
- using the words in new sentences

5.8 Selection of the Target Words

The target words composed mainly of content words i.e. nouns, verbs adverbs and adjectives were selected from the main texts. A total of 40 words (twenty nouns, ten verbs, and ten adjectives and adverbs) were selected from the target texts devoted to RO treatment and 40 others (twenty nouns, ten verbs, and ten adjectives and adverbs) were selected from the texts dedicated to RAD treatment. The first 40 words chosen from the RO texts were included in test A and 40 others were included in test B. test A was used as the pre- and post-test for RO treatment and test B was used as the pre- and post-test for RAD treatment.(see appendices 1 & 2).

5.9 Testing Material and Scoring Procedure

A 5-point scale combining self-report and performance items to elicit self perceived and demonstrated knowledge of specific words in written form was used in this study. Vocabulary knowledge scale (VKS) has been developed by Paribakht and Wesch (1993, cited in Paribakht & Wesch, 1997) to distinguish stages in learners' developing knowledge of particular words. The scale ranges from total unfamiliarity through recognition of words and some idea of their meaning to the ability to use words in sentences which were semantically and grammatically accurate (figure 1).

In each text learners were presented a list of target words and were asked to indicate there level of knowledge of target words (appendix 1).

Self-reported knowledge of categories A and B was given scores 1 and 2 respectively. More demonstration of knowledge was required for students to acquire higher score. Figure 2 demonstrate the scoring procedure. As it is illustrated in figure 2, wrong responses in self report categories C, D, and E led to a score of 2. A score of three was given if appropriate synonym or translation for categories C or D was provided, sentences which were semantically correct but grammatically inaccurate was given 4, and finally a score of 5 indicates that a sentence was semantically and grammatically correct.

6. Data Analysis

Data analysis and results are reported for each hypothesis:

H₁: students will gain in their knowledge of target words found in the reading text through text-based direct vocabulary instruction and also through reading alone.

To measure vocabulary gains in target vocabulary knowledge in two treatments (RO & RAD) the pre and post instruction score for each category verb ,noun, adjective and adverb, and total content words were compared through paired t-test. Tables 1 and 2 show the results.

The results of the T-test for each treatment along with the standard deviation and mean differences are shown in table 1 and 2. As is apparent from Tables 1 and 2, highly significant gains ($p < .001$) were achieved by students in both treatments for all categories of target words. So hypothesis 1 is supported by these data. The results are also illustrated in Figures 1 to 6.

<Tables 1 & 2 about here>

<Figures 1 to 6 about here>

H₂: Given the same amount of time devoted to the two treatments, gains for the text-based direct vocabulary instruction would be greater.

In order to compare the effects of the two treatments , the difference between pre and posttest scores of each treatment were calculated for each category in terms of percentage (Table 3) and then the results of the two treatments were compared with each other through paired T-test to see if the differences were statistically significant (Table 4).

<Tables 3 & 4 about here>

As it can be seen in table 3, the difference between verb scores in pre and posttest in RO treatment is about 22%, while it is 26% in RAD treatment. The difference between the results of the two treatments does exist but as it can be seen in table 4, this difference is not statistically significant. In the case of nouns the difference between pre and posttest scores in RO treatment is about 14% and in RAD treatment about 23.5%; but as it might be seen in Table 4 we do have some difference (about 10%) but it is not statistically significant either. The difference between adjectives/adverbs in RO treatment is about 12.5% and in RAD about 36%. The difference between these two in both treatments is 24% which is statistically significant at $p < 0.000$ (Table 4). As a whole, the difference between the total scores in both treatment is 12% which is statistically significant ($p < 0.001$). These findings provide support for hypothesis 2, i.e. the RAD treatment brought significantly greater gains than the RO treatment.

H₃: vocabulary gains will be both quantitative (reflected in the number of words known to some degree versus not known) and qualitative (increased “depth” of knowledge of given words).

In order to measure the development of the quantitative knowledge, the gains for each category of verb, noun, adjective and adverb in both pre and posttests in both treatments were calculated and compared (Table 3). In Table 3 it may be seen that all categories of words show quantitative gains. It shows that the percentage of target nouns has increased from about 47% percent before instruction to about 60% after instruction in RO treatment and from about 45% to about 68% in RAD treatment. Similarly, the percentage of target RO treatment verbs has increased from 47% to 68% afterward, while RAD treatment verbs were 42% before instruction and 68% following the instruction. The last category that is adjectives/adverbs did show some increase from 50% to about 62% in RO treatment and from 42% to 78% in RAD treatment. Totally, for all content words, in the RO treatment, the students’ qualitative knowledge of words extended from 48% to 63% and in the RAD treatment from 44.5% to 71.5%.

In order to estimate the improvement of qualitative knowledge, each individual pre- and post response for each word was taken into account. The answers were grouped to reveal patterns of target words knowledge before and after instruction for the two treatments. Table 5 shows the percentage of each word knowledge category of VKS scale i.e. (A, B, C, D &E).

<Table 5 about here>

As Table 5 illustrates, in each treatment, there is dramatic decrease in category A in the posttest and a considerable increase in category E. The answers for category A have decreased from 24.6% to 8.4% in the RO treatment and from 25.3% to 2.6% in the RAD, while answers for category E have moved from 25% to 48.5% for the RO treatment and from 20.1% to 52% for the RAD. The answers for B category in RAD treatment have declined from 32.8% to 25.6% while less decrease can be seen in RO treatment for this category. Totally as table 5 and figures 3 to 6 show, in the RAD treatment students have more moved to higher categories (i.e. C, D, E). In other words many learners in the RAD treatment seem to have passed the recognition level of target words and to have achieved greater depth in their knowledge of these words. The findings thus provide support for H₃.

7. Discussion and Conclusion

The results of the study revealed that both treatments, that is, reading only and text-based direct vocabulary instruction treatments brought about considerable gains in learners' vocabulary knowledge but that the RAD treatment resulted in greater gains. As the results of the study showed, the gains for the RO treatment were also remarkable. These findings may be attributable to the fact that each text was followed by a series of reading comprehension questions which may have caused students to attend to some target words. Also each target word was repeated several times in the main and supplementary texts. But as we know in the "real-world" reading, the reading text is never followed by comprehension questions and one pays attention to a word only if it is essential to the meaning.

The findings also indicated that students' word knowledge developed both quantitatively and qualitatively; that is, the learners moved from the level of "not-known" to "partially known" and to known in both treatments. This progress was more evident in the RAD treatment.

Given the previous research findings (cited earlier) and the results of this study, it seems reasonable to explain the reason why both treatments resulted in significant but different gains. Both treatments provided _ although to differing degrees- several exposures to target words in different and meaningful contexts of use, and tasks needed different kinds and levels of text processing involving target words. The reason for the better gains in the RAD treatment may be that the vocabulary exercises used in this treatment ensured learners' attention to specific vocabulary items and required learners to analyze and understand the meaning and functions of target words through different tasks. Both the amount and variety of mental processing required may have influenced the likelihood of learners acquiring more knowledge of particular words. In general the results showed that if reading for meaning is complemented with some instructions and vocabulary exercises, may produce better gains for the targeted words.

8. Suggestions for Further Research

This study can also be made in other different conditions:

The present study was conducted on a group of intermediate EFL learners which were only females. They didn't have good range of vocabulary knowledge and still hadn't developed skills in L2 reading. Neither were they familiar with many reading strategies. If the research were carried out on beginners with less vocabulary knowledge and reading skills or on advanced learners with good range of vocabulary knowledge and skills, different results might be yielded.

The post-test exams in the study were administered within one-week interval; i.e. one week after administering the treatments. In fact the short term retention of target words was tested. If posttests were run within two or three week interval, different outcomes would be achieved.

The participants took part in the study were EFL students who didn't have any exposure to English in out of class situations. This study can also be conducted on ESL students with enough exposure to English in out of class situations. The last point which is worth mentioning is that the targeted words in the study were mainly abstract. It can also be done with concrete words to see if similar results are produced.

References

- Atay, D. and Ozbulgan, C. (2007). Memory strategy illustration, contextual learning and ESP vocabulary recall. *English for Specific Purposes* 26, 39-51.
- Brown, T.S. and Perry, F.L. (1991). A comparison of three learning strategies for ESL vocabulary acquisition. *TESOL Quarterly* 25(4), 655-670.
- Carter, R. and McCarthy, M. (1988). *Vocabulary and language teaching*. New York: Longman.
- Decarrico, J.R. (2001). Vocabulary learning and teaching. In Celce-Murcia (Ed.), *Teaching English as a second or foreign language*. Boston: Heinle and Heinle.

- De La Fuente, M.J. (2006). Classroom L2 vocabulary acquisition: Investigating the role of pedagogical tasks and form focused instruction. *Language Teaching Research* 10(3), 263-295.
- Jiang, N. (2000). lexical representation and the development in a second language. *Applied Linguistics* 21(1),47-77.
- Joe, A. (1998). What effects do text-based tasks promoting generation have on incidental vocabulary acquisition. *Applied Linguistics* 19(3), 357-377.
- Laufer, B. (1991). The development of L2 lexis in the expression of the advanced learner. *The Modern Language Journal* 75(4), 440-448.
- Laufer, B. (1998). The development of passive and active vocabulary in a second language: same or different. *Applied Linguistics* 19(2), 255-271.
- Laufer, B. and Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language: the construct of task-induced involvement. *Applied Linguistics* 22,1-26.
- Laufer, B. and Girsai, N. (2008). Form focused instruction in second language vocabulary learning: a case for contrastive analysis and translation. *Applied Linguistics* 29,1-23.
- Lee, S.H. (2003). ESL learners' vocabulary use in writing and the effects of explicit vocabulary instruction. *System* 31, 537-561.
- Mondria, J.A. and Boer, M.W. (1991). The effects of contextual richness on the guessability and the retention of words in a foreign language. *Applied Linguistics* 12(3), 249-267.
- Nagy, E.W., Herman, P.A. and Anderson, R.C. (1985). Learning words from context. *Reading Research quarterly* 20(2), 223-53.
- Nation, p. and Newton, J. (1997). Teaching vocabulary. In J. Coady and T. Hckin (eds.): *second language vocabulary acquisition: A rational for pedagogy*. New York: Cambridge University Press.
- Nation, P. and Coady, J. (1988). Vocabulary and reading. In R. Carter and M. McCarthy (Eds.). *Vocabulary and language teaching*. New York: Longman.
- Nation, P. (2005). Teaching Vocabulary. *Asian EFL Journal* 7(3). [Online] Available: http://www.asian-efljournal.com/sept_05_pn.pdf (February 4, 2006)
- Nation, I.S.P. (2001). *Learning vocabulary in another language*. New York: Cambridge University Press.
- Paribakht, S. and Wesch, M. (1997). Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition. In J.coady and T. Huckin (eds.): *Second language vocabulary acquisition. A rational for pedagogy*. New York: Cambridge University Press.
- Perry, K. (1991). *Building vocabulary through academic reading*. TESOL Quarterly 25(4), 629-653.
- Reider, A. (n.d.). Implicit and explicit learning in incidental vocabulary acquisition. [online] Available: http://www.univie.ac.at/Anglistik/views/03_2/RIE_SGLE.PDF(November 12, 2008)
- Saragi, T., Nation, I.S.P. and Meister, G.F. (1978). Vocabulary learning and reading. *System* 6,72-8.
- Seglar, T.M. (April, 20, 2001). PHD proposal: second language vocabulary acquisition and learning strategies in ICALL environments.[online]Available:homepages.inf.ed.ac.uk/s9808690/newprop.pdf (November 12, 2008)
- Webb, S. (2007). The effect of synonymy on second language vocabulary learning. *Reading in a Foreign Language* 19(2), 120-136.
- Zimmerman, C.B. (1997). Do reading and interactive vocabulary instruction make a difference. An empirical study. *TESOL Quarterly* 31(1),121-140.

Table1. The results of the RO treatment

	N	Pretest	Posttest	Differences	Significance	Std. deviation	t
Verb	38	23.84	34.37	10.55	.000	3.92	11.74
Noun	38	47.63	61.21	13.57	.000	9.59	6.16
Adj/adv	38	25.00	31.79	6.78	.000	5.35	5.53
Total	38	96.47	126.84	30.36	.000	15.83	8.35

Table 2. The results of the RAD treatment

	N	Pretest	Posttest	differences	Significance	Std. deviation	t
Verb	38	21.47	33.79	12.31	.000	5.18	10.35
Noun	38	45.11	68.47	23.36	.000	14.69	6.44
Adj/adv	38	21.32	38.63	17.31	.000	5.18	14.73
Total	38	89.32	142.95	53.63	.000	19.97	11.70

Table 3. Comparing the means of the two treatment

		Pretest mean	Posttest mean	differences
RO Treatment	Verb	23.84 (47%)	34.36 (68%)	10.52(22%)
	Noun	47.63 (47%)	61.21 (61%)	14.5 (14%)
	Adj/adv	25 (50%)	31.78 (62%)	6.78 (12.5%)
	Total	96.74 (48%)	126.84 (63%)	30.36 (15%)
RAD Treatment	Verb	21.47 (42%)	33.79(68%)	12.31 (26%)
	Noun	45.11(45%)	68.47(68.5%)	23.36 (23.5%)
	Adj/adv	21.32(42%)	38.63 (78%)	17.31(36%)
	total	89.32(44.5%)	142.96(71.5%)	53.63 (27%)

Table 4. Comparing the treatments

	N	RO treatment	RAD treatment	differences	t	Std. deviation	significance
Verb	38	34.37	33.79	0.57	0.452	5.58	0.657
Noun	38	61.21	68.47	7.26	1.649	19.19	0.116
Adj/adv	38	31.79	38.63	6.84	4.73	6.30	0.000
Total	38	126.84	142.95	16.10	4.05	17.31	0.001

Table 5. Frequency distributions of pre and post vocabulary scores, RO and RAD treatments, for different choices of VKS scale

		A	B	C	D	E
RO treatment	Pretest	340 (24.6%)	394 (25.9%)	196 (12.8%)	176 (11.5%)	380 (25%)
	Post-test	128 (8.4%)	352 (23.1%)	144 (9.4%)	158 (10.13%)	738 (48.5%)
RDA treatment	Pretest	385 (25.3%)	500 (32.8%)	190 (12.5%)	140 (9.2%)	305 (20.1%)
	Post-test	40 (2.6%)	390 (25.6%)	88 (5.79%)	208 (13.6%)	794 (52%)

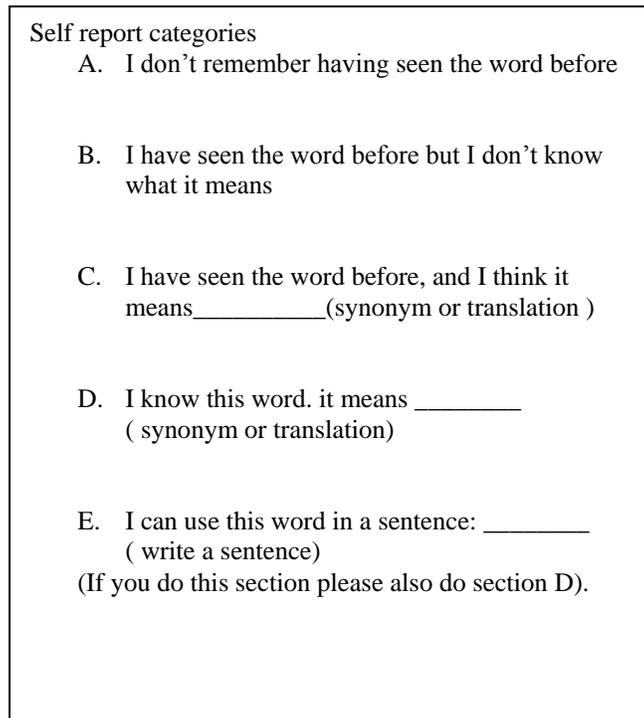


Figure1. VKS elicitation scale- self report categories

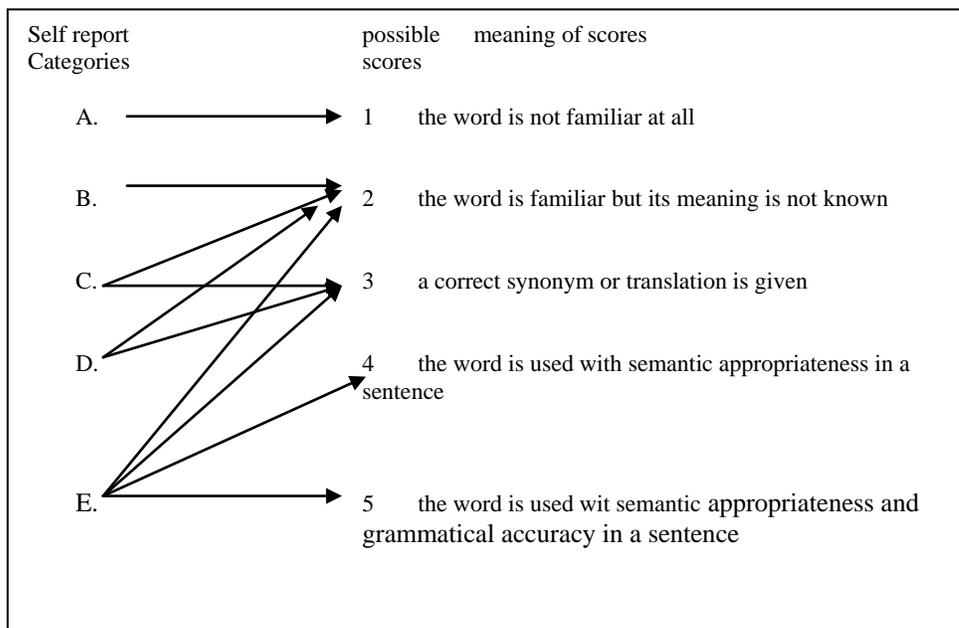


Figure2. VKS scoring categories- meaning of scores

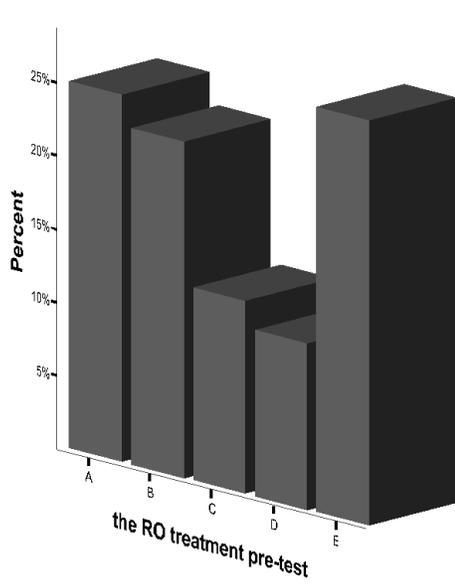
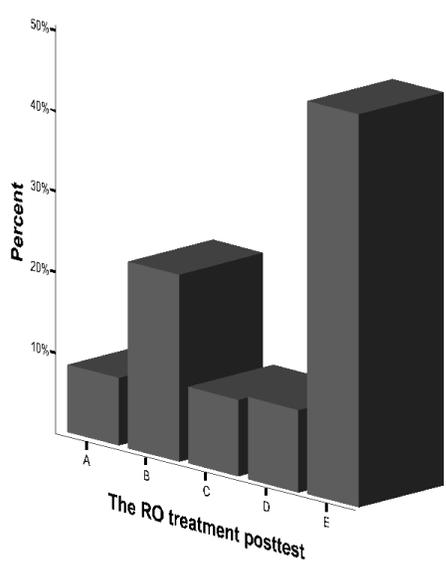


Figure 3

Bars show percents



Bars show percents

Figure 4

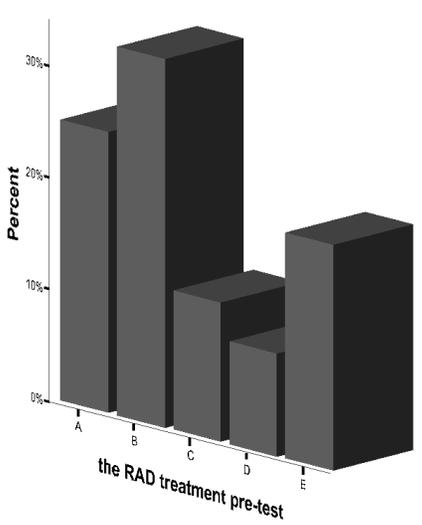
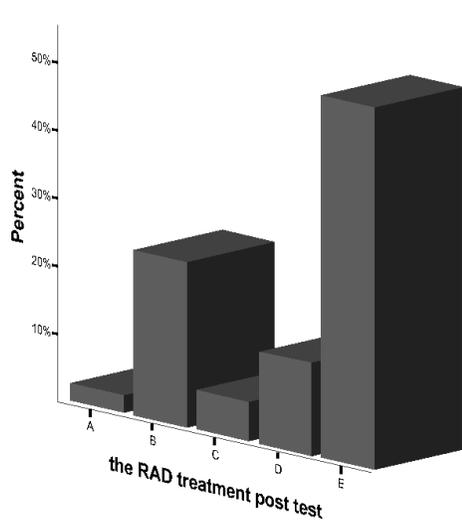


Figure 5

Bars show percents



Bars show percents

Figure 6