The Impact of Two Instructional Techniques on EFL Learners' Vocabulary Knowledge: Flash Cards versus Word Lists[1]

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Abstract

The aim of this project is to research students' responses to teaching vocabulary using flash cards and word lists. The study was carried out at the Khatam Junior High School in Iran. Two classes of 18 students at the elementary level of English language proficiency were selected. To investigate the results of teaching vocabulary using flash cards and word lists, the necessary instructions were given for ten minutes in two sessions. After two days, a post-test was given to each group in fifteen minutes and then their mean scores were compared through a *t*-test. The results revealed no significant difference in the efficacy of either of the two techniques.

Resumen

La meta de este proyecto es averiguar las respuestas de los estudiantes a la aprendizaje del vocabulario utilizando tarjetas y listas de palabras. el estudio se llevo a cabo en la *Khatam Junior High School* en Irán. se escogieron dos clases de 18 estudiantes de nivel de ingles elemental. para investigar los resultados del aprendizaje del vocabulario utilizando las cartas y las listas de palabras, se proporcionaron las instrucciones necesarias durante 10 minutos en dos sesiones. tras de dos días, un exámenes posterior se aplicó a cada grupo en 15 minutos y se compararon sus calificaciones medias mediante la prueba t. Los resultados mostraron que no había una diferencia de importancia en la eficacia en cualquiera de ambas técnicas.

Introduction

Vocabulary learning is an intrinsic part of language teaching. A number of researchers agree that there is very little research carried out in the field of vocabulary learning (e.g., Folse, 2004; Hunt & Beglar, 2005) and that the most effective means of vocabulary learning is still unclear (e.g., de Groot, 2006). In recent years, applied linguists have strongly advocated vocabulary teaching because of the important role it plays in language learning (Qian, 1999; Zareva, Schwanenflugel & Nikolova, 2005). Vocabulary is necessary for communication and in expressing meaning through the productive and receptive skills. There are many techniques employed by teachers in teaching vocabulary and they can improve their learners' knowledge of vocabulary by

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helping them in building a large number of words to choose from anytime they want to convey their intended message in different contexts.

Without an extensive knowledge of vocabulary and strategies for learning new words, learners may feel disappointed and lose their confidence (Nation, 2001). Therefore, it is necessary to familiarize learners with a number of useful strategies to expand their vocabulary learning and to teach them how they can make use of these strategies. The present article will introduce two different strategies of teaching vocabulary items to English language learners and provide the results of a study concerning the use of flash cards and word lists.

Vocabulary Teaching

One of the major problems that the majority of language learners encounter in initial stages of language learning is that they cannot make appropriate choice regarding what type of vocabulary learning strategy they should adopt in their learning process. It is the teachers' responsibility to help their students learn second language words efficiently. Hence, investigating different strategies and procedures that teachers should make use of in the process of language teaching is an important issue.

According to Seal (1991), there are two types of vocabulary activities: planned and unplanned. In unplanned vocabulary teaching activities, learners ask for the meaning of words and teachers try to make the meaning clear by using different strategies such as body language, antonyms, synonyms, pictures, etc. The goal of the teacher is to try to make the meaning clear for the students. Then the teacher asks questions regarding the problematic words in order to make sure that the learners have understood their meaning.

In planned vocabulary teaching, however, language teachers consider in advance what items to teach and how to teach them.

Oxford and Scarcella (1994) have divided vocabulary learning activities into three categories: 1) decontextualized, 2) partially contextualized, and 3) fully contextualized. Decontextualized activities are those vocabulary items which are removed from the context in which they first appear in and are presented in situations free from any communicative values (e.g., word lists, flash cards, dictionary look-up). Partially contextualized activities are often termed as intentional or planned vocabulary learning or teaching (e.g., word grouping, word association, word elaboration, physical response). Finally, fully contextualized activities are supposed to play an important role in vocabulary teaching since they provide students some opportunities to practice authentic communication such as reading stories, plays, magazines, newspapers, or letters; listening to the radio; watching TV; participating in conversations; or writing messages with the purpose of communication in real-life situation, to name a few.

Regarding these activities, reading is the most useful in developing L2 vocabulary since it provides multiple encounters with a variety of words (Nagy, Herman, & Anderson, 1985). The two vocabulary teaching strategies

of word lists and flash cards are known as decontextualized activities. Both strategies are used in this research and will be discussed in the following sections.

Word Lists

A word list is a sheet of paper where students write the L2 words along with their L1 definitions or translations to one side of each word. As Oxford and Crookal (1990) mention, "The assumptions that undergird this technique appear to be that learners do not need much, if any, context to learn vocabulary, and that rote memorization is perfectly adequate" (p.10).

Proponents of the word list technique believe that working with word lists is one of the most effective ways of acquiring L2 vocabulary (Meara, 1995; Nation, 1995). In a study carried out by Shillaw (1995), the results revealed that the reason for success in a semester-long project was due to using word lists. On the other hand, other researchers argue that to acquire the complex nature of words, learners need to encounter words in several meaningful contexts. According to some experts such as Baumann and Kameeuni (1991) and Blachowicz and Fisher (2000), methods which provide learners with opportunities to process words by making connections between what they already know and what they have learned are effective strategies. Personalizing a new word depends on making semantically meaningful connections between learners' schema and what they have recently learned.

The learning of second language vocabulary using lists of word pairs (rote repetition) is a common practice. Although a great deal of work has been done on vocabulary learning, Griffin and Harley (1996) contend that where the task of second language learning is concerned, little work has been done on list learning of new words despite the fact that it is one of the most widely-used techniques among learners.

Yongqi (2003) mentions some aspects of word list learning. First, he tries to answer the question of how many repetitions learners need in order to learn word pairs. He points out that a surprising number of word pairs can be learned within a short time. As an example, Lado, Baldwin, and Lobo (1967, as cited in Yongqi, 2003) found that intermediate college students of Spanish recalled 65% of 100 words after just one exposure. Similarly, Crothers and Suppes (1967) showed that participants recalled all 108 Russian-English word pairs after seven repetitions, and after six repetitions, 80% of 216 word pairs were learned by most participants. Secondly, Yongqi (2003) discusses the optimum number of words to be studied at one time. In this regard, Crothers and Suppes (1967) examined different list sizes ranging from 18 to 300 words and revealed that the number of words in every word list depends on the difficulty level of words. When words were easy, large sizes were appropriate and when words were difficult, small list sizes were efficient. Thus, it has been suggested that if the words are easy, lists of 100 or more can be used in the instructional program (Yongqi, 2003).

Thornbury (2002) maintains that the value of list learning may have been underestimated in language classrooms. He suggests several strategies for using word lists in the classroom. The following are some of these strategies:

1. The teacher randomly reads words from the list while learners match the sounds with the written forms by ticking the ones they hear.
2. If learners have a bilingual word list, they cover the translation part; the teacher gives   translations and learners tick the English equivalents.
3. Students can make a story from a list of words: they choose, for example, twelve words from a list of twenty words and then construct a story in a narrative form. Or they take turns in order to make a sentence which includes the next word on the list so as to continue the story.

Because the communicative approach is commonly used in many parts of the world, any strategy involving learning vocabulary out of context has been relatively unpopular. Although it is believed that list learning should be discarded as a behaviorist learning method (Hulstijn, 2001), there is some empirical investigation which recommends that list learning should be used as a strategy for teaching and learning L2 words. For example, in some studies which compare vocabulary acquisition through context and list learning, the results indicated that acquiring vocabulary through list learning is more efficient and effective than context learning (e.g., Nation, 2001). In addition, contrary to the belief that list learning does not cause long-term retention, empirical investigation has demonstrated that the vocabulary learned through lists remains in the long term memory of the learner (Hulstijn, 2001; Nation, 2001).

Flash Cards

Another strategy for learning vocabulary is the use of flash cards. A flash card is a cardboard consisting of a word, a sentence, or a simple picture on it. It should be noted that the letters on it must be visible and large enough for everyone sitting in the front and the back of the classroom. To make sure that everyone can see the letters on the card, it is better to write words with capital letters. Both sides of the flash cards should be used in teaching vocabulary. On one side, the new word is written in L2 and perhaps with a picture beside it and on the other side is the translation. These flash cards can be made by both teachers and learners. Various kinds of flash cards are on the market. Flash cards for EFL teaching or self-study have been used for years and are a useful tool for teachers and learners.

Comparing flash cards to word lists, some researchers indicate that working with flash cards help learners in acquiring vocabulary more effectively than word lists (Mondria & Mondria-de Vries, 1994; Schmitt & Schmitt, 1995). It can be seen that flash cards have been used for teaching a variety of purposes during the history of language teaching. An example is to teach sounds of the alphabet using them (Young, Hecimovic & Salzberg, 1983) or to help students to improve word recognition if they are poor readers (Culyer, 1988). Another example is to teach students to practice their

vocabulary development and completion drills in the learning of foreign language (Ervin, 1988). Flash cards have also been used in teaching English as second language. They are used not only for teaching vocabulary but also for teaching propositions, articles, sentence structures, tenses, and phrasal verbs (Palka, 1988). In addition to teaching vocabulary, flash cards have been used to improve both comprehension and reading speed (Tan & Nicholson, 1997).

Even though flash cards have been used in schools for many different purposes during the language teaching history, studies concerning the effects of flashcard applications on learning are limited. In the language area, a small number of studies are available. In one study concerning the use of flash cards, Ehri and Roberts (1979) studied first graders to see whether they learned printed words better in isolation or in context. Post-test scores revealed that those who were taught words in isolation were able to read the words faster than those who were taught in context and they also learned more about orthographic forms but those who were taught in context learned more about the semantic identities rather than orthographic forms. In another study, Cuvo and Klatt (1992) compared the effects of three instructional conditions: 1) using flash cards for teaching sight words, 2) teaching community-referenced sight words, and 3) phrases with a videotape in school setting and teaching the sight words with the natural signs in community to adolescents with mild and moderate mental retardation. The results revealed that in all three conditions rapid acquisition of the community-referenced sight words occurred and there was also a generalization from the videotape and flashcard conditions to the community sites. The results of these studies indicate the positive effects of flash cards on language learning despite the fact that some researchers have criticized them for stressing memorization over comprehension (McCullough, 1995) and others have argued that they should be used as a device to create fun classrooms (Nicholson, 1998).

The Research Study

This study compares two techniques of teaching vocabulary: flash cards and word lists. There are two reasons for choosing the word list technique in this study. First, the word list technique is the method largely used in national EFL textbooks as well as most educational settings in Iran. Secondly, although a vast number of studies have been conducted on vocabulary learning, little work has been done on list learning of vocabulary (Griffin & Harley, 1996).

As the above literature review indicates, research on the effectiveness of using flash cards in the teaching and learning process is limited. Whether flash cards can be used to positively facilitate teaching and learning vocabulary remains to be studied. The purpose of this study is to investigate the effects of using flash cards and word lists on EFL students' learning of foreign language vocabulary. For the purpose of this investigation, the following research question was posed:

Which presentation technique (flash cards versus word lists) is more effective in promoting EFL students' knowledge of newly learned vocabulary?

Method

Context and Participants

This study was conducted at the Khatam Junior High School in Iran. The participants were 36 male students at the elementary level of English language proficiency with an average age of 13 to 14 years old.

Materials

The materials used in this study were flash cards and word lists. These flash cards were cards with pictures on one side and their translations in L1 (Farsi) on the other side. For the word lists, the words were written in one column and their translations were in to one side of the words. In the testing procedure, the cued-recall test was used. The new vocabulary was given to students in L2 and they were asked to write their translation in L1 on given answer sheets.

Procedure

Two classes were selected with each consisting of 18 male students. The classes were similar in a number of ways: the students in both were at the same age and all of them studying at the same school with the same English teacher. During the treatment period, they were exposed to the same vocabulary items but through different techniques. The tests that were given and the time for giving instructions were exactly similar for both the flash card and the word list groups. Because of the time limitation, twenty vocabulary items were selected by the two researchers. All of the words were from the participants' textbook (*New Interchange 1*). In order to make sure that the participants had not encountered the target vocabulary in their present or previous books, the researchers consulted the participants' teacher as well as two other teachers from the school. Group 1 received instruction of vocabulary using flash cards and Group 2 received the vocabulary instruction through word lists for two sessions. The instruction was given in ten minutes in both sessions. Finally, two days after finishing the procedure, a post-test was administered to both groups to see which group had remembered more words.

After the data collection, the students' scores were obtained by adding up the correct answers. If the participants did not know the answer, they received zero and if they provided the correct answer, they received one point. Thus, each participant's total score ranged from 0 to 20.

Results

After the participants' scores were obtained from the given tests, they were analyzed. The mean of each group was calculated and compared to show the probable differences. In order to ensure the significance of the results, a *t*-test was administered, too. The mean score of the flash card group was 16.83 and the mean score of the word list group was 15.55. Apparently,

there was not a significant difference between the two groups. To ascertain that the difference between these two groups was not a significant one, an independent samples *t*-test was employed. The results revealed that there was no statistically significant difference between the two groups, *t*(34)=0.94, *p>.05*.

Groups	N	Mean	SD
Flash card	18	16.83	2.3
Word list	18	15.55	3.19

Table 1. Descriptive statistics for both groups

Discussion and Conclusion

The result of this study indicates that there is no significant difference in the efficiency of flash cards compared to word lists. It was hypothesized that flash cards would lead to better learning than word lists for four main reasons (Mondria & Mondria-de Vries, 1994; Nakata, 2008; Schmitt & Schmitt, 1995). First, new words can easily be practiced extensively with flash cards. Learners can separate cards into several categories based on their difficulty level. It helps them review difficult words more frequently than easy ones. Second, working with flash cards increases vocabulary retrieval. Since learners are presented with an L2 word and its definition on the other side of the card, they can easily practice new words and recall their meanings inasmuch as the words appear on two different sides of the card. Third, learning words through lists causes *list effect*. According to Nakata (2008), list effect is a phenomenon caused by the position of the word in a given list, as a result of which "learners may have no problem retrieving memory of the item within the list, but have considerable difficulty in doing so when it is presented outside it" (p. 7). Finally, there may be problems of attention with word lists, because some words may receive less attention than others because of their particular positions in the list. Nevertheless, there is not such a problem in learning with flash cards since they tend to be more flexible.

The results of the present study offer only partial support to the hypothesis that flash cards can lead to better learning than word lists. Although the flash card technique brought about a higher mean score than the word list, there was no statistically significant difference between them, suggesting that the advantage of flash cards over word lists is limited. The results seem inconsistent with the observation that flash cards lead to more effective learning than lists (Mondria & Mondria-de Vries, 1994; Schmitt & Schmitt, 1995). There appears to be two reasons for this discrepancy. The first reason might be attributed to limitations in the learners' ability to use flash cards effectively. Nakata (2008) has postulated that learners have to evaluate each word regarding its difficulty level and implement extensive rehearsal by cards. Furthermore, learners should have a review plan in their learning process. This will demand expansive meta-cognitive abilities on the part of the language learner; if they lack such abilities, no difference may be found

in comparing flash cards and word lists. The second reason is the issue of time duration. There is a direct relation between working with flash cards and time duration. It is believed that flash cards are more effective than word lists because the former can be easily separated into several groups. Hence, learners can easily focus on difficult words over simpler words (Mondria & Mondria-de Vries, 1994; Schmitt & Schmitt, 1995). Because the learners learned twenty new vocabulary items for no more than twenty minutes in this study, they did not have enough time to evaluate the difficulty level of the words and focus on more challenging items.

Given the small number of the participants and the limited number of target words, one cannot draw definitive conclusions based on the findings of the present study. However, the obvious thing is that it is possible to learn new vocabulary through decontextualized activities. This is particularly of interest to teachers working in EFL contexts where there is limited access and exposure to the target language. A large number of EFL teachers are worried that, due to the limitations imposed on their learners in such settings, they will not be able to achieve a high level of lexical proficiency. However, the findings of this study revealed that even with very so-called simple and rather traditional techniques of vocabulary teaching, one can help EFL learners. This is attested by the rather large mean scores of the participants in both groups.

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