The Effect of Using Vocabulary Flash Card on Iranian Pre-University Students' Vocabulary Knowledge

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Abstract

The present study was conducted to investigate the effect of using vocabulary flash card on Iranian pre-university students' vocabulary knowledge. The participants of the study comprised 50 female learners. They were randomly assigned into two homogeneous groups each consisting of 25 learners. The control group received the traditional treatment while the experimental group received the vocabulary flash card treatment. Before starting the treatment, two similar tests were prepared as the pretest/posttest to find out students' vocabulary knowledge at the beginning and at the end of the study. Analysis of the results in the posttest revealed significant differences between the two groups. The results showed the students in the experimental group outperformed the students in the control group in their vocabulary knowledge. Hence, it was concluded that the contribution of vocabulary flash card in teaching vocabulary to students led to a higher level of vocabulary improvement.

Keywords: Vocabulary, Vocabulary learning, Flash card, Vocabulary flash card , Learning, Teaching, Strategy

1. Introduction

Vocabulary as a major component of language learning has been the object of numerous studies each of which has its own contribution to the field. Laufer (1997) states that vocabulary learning is at the heart of language learning and language use. In fact, it is what makes the essence of a language. 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 (Folse, 2004; Hunt & Beglar, 2005) and that the most effective means of vocabulary learning is still unclear (de Groot, 2006).

In the literature of English language teaching and learning a recurring theme has been the neglect of vocabulary. It was often given little priority in language programs and was often left to look after itself and received only incidental attention in textbooks and language programs (Hedge, 2008; Richards & Renandya, 2002). In the past of language teaching, vocabulary learning and teaching were given little importance. As Moir and Nation (2008) write, at one time it was widely assumed that lexical instruction is not essential as it can happen by itself; therefore, the teaching of vocabulary was not popular (Nation, 1990). However, nowadays, the significance of vocabulary and its significance in learning a language have become more accepted. Griffiths (2003, 2006) points out, for example, that recently the significance of teaching vocabulary has been acknowledged.

A number of research studies recently conducted have dealt with lexical problems of language learners. Scholars such as Allen (1983) and Bowen (1985) have shown that lexical problems frequently interfere with communication; in other words, communication breaks down when people do not use the right words. Therefore, there is an increased interest in vocabulary as a component of every language.

One way to add new words to one's vocabularies is by locating words in the dictionary and learning what they mean. But this is a slow process to increase word power. Another way is learning through vocabulary card or flash card. As we listen and read, we often meet new words by flash card. Word lists and flash cards can be used for the initial exposure to a word, but most students continue to use them to review it afterwards. One main advantage of flash cards is that they can be taken almost anywhere and studied when one has a free moment (Brown, 2000). Another is that they can be arranged to create logical grouping of the target words (Gairns & Redman, op. cit.; Cohen, 1990).

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 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 (Hart, 1982). 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).

In one investigation on flash cards, Ehri and Roberts (1979) studied whether first graders learn printed words better in contexts or in isolation. Post-test scores indicated that context-trained children learned more about the semantic identities of printed words, while flashcard-trained children could read the words faster and learned more about 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 argued that they should be used as a device to create fun classrooms (Nicholson, 1998).

According to Din and Wienke (2001) the flash card use approach is an effective training and learning method for high school teachers and students in chemistry study and also flash cards can be used to effectively help teachers teach, students learn and comprehend chemistry vocabulary. Furthermore, in a recent study concerning the use of flash cards, Baleghizadeh and Ashoori (2011) investigated the effects of using flash cards and word lists on EFL students' learning of foreign language vocabulary. The result of their study indicated that there is no significant difference in the efficiency of flash cards compared to word lists and also offered partial support to the hypothesis that flash cards could lead to better learning than word lists. 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.

2. Statement of the Problem

Although vocabulary has been the subject of many studies, few researches have revealed the effective techniques of vocabulary teaching. So it is of prime importance to attempt to find the most effective technique of vocabulary teaching. According to Allen(1983), all experienced language teachers confirm the important role of words and know that the lack of them leads to feeling of insecurity.

Vocabulary is an inseparable part of any language learning process. It would be impossible to learn a language without vocabulary. The important role of vocabulary has been emphasized in all different methods in language teaching. According to Rivers (1981), "vocabulary cannot be taught. It can be presented, explained, included in all kinds of activities, but it must be learned by the individual" (p. 110).

According to Rahimi and Sahragard (2008), learning a foreign or second language at intermediate and advanced levels of proficiency involves the acquisition of thousands of words. Language learners look for effective ways to increase opportunities for retaining new words in long-term memory, but forgetting is a common problem. Language learners often complain that they forget new words soon after learning them. The importance of vocabulary learning also poses some challenges for teachers. They like to know in what ways instructional programs might foster the acquisition of so many words.

3. Purpose of the Study

The aim of this study is to increase the students' vocabulary knowledge through using seven-step vocabulary flash card (VFC) as a model to boost vocabulary learning.

The study has two major purposes as follows:

1) Theoretically

a) The finding of this research enriches the theory of teaching vocabulary and using vocabulary flash card.
b) The result of the research can be used as a reference for those who want to conduct a research in English teaching and learning process.

2) Practically

a) The research gives way to solve the problem in teaching vocabulary.

b) Vocabulary flash card can motivate the students to learn English in order to be more interested in learning vocabulary and enhanced their vocabulary knowledge.

c) Other teachers can adopt this strategy (VFC).

Teacher can also utilize them to judge students' performance. This study has aimed to enable teachers and students to share the responsibility for setting learning goals and for increasing progress toward meeting those goals. This study helps students become self-directed and autonomous learners; teachers are no longer knowledge transmitters but mentors, facilitators and collaborators. Students can become active learners by taking more responsibility in learning and having more involvement in learning.

At the first glance this strategy may seem time consuming, but the students consistently believe that the learnt words and their functions will last for a long time. Nation (2003) emphasizes and encourages the use of bilingual cards and first language translation as the best ways for increasing vocabulary size. He contends "forget all the criticism you have heard about rote learning and translation; research has repeatedly shown that such learning is very effective" (Laufer, Meara, & Nation, 2005).

4. Research Questions

According to the problems mentioned and purpose of the study the following questions were posed:

Q1: Is there any significant difference between the impact of traditional teaching method and using vocabulary flash card on Iranian pre-university students' vocabulary knowledge?

Q2: Does using vocabulary flash card have a positive effect on students' vocabulary knowledge?

5. Hypotheses of the Study

Based on a review of literature and the aforementioned lines of reasoning the following alternative hypothesis was formulated.

H1: There is no significant difference between the mean scores of the students in the experimental group who apply vocabulary flash card and the mean scores of those students in the control group who do not apply vocabulary flash card.

H2: Using vocabulary flash card does not have a positive effect on pre-university students' vocabulary knowledge in the experimental group at the end of the study and treatment.

H3: Traditional teaching treatment does not have a positive effect on pre-university students' vocabulary knowledge in the control group at the end of the study.

6. Significance of the Study

"If language structures make up the skeleton of language, then it is vocabulary that provides the vital organs and the flesh." (Harmer 1993) One of the most challenging parts of language learning is the acquisition of vocabulary. Students, however, complain that they cannot remember the words they have learned. To solve this problem, teachers can attempt to include learning devices into their classes. Meanwhile, this study aims to present a new vocabulary learning tool (VFC). The researcher believes that an awareness of individual differences in learning makes EFL educators and curriculum designers more sensitive to their roles in teaching and learning. Furthermore, it will permit them to match teaching and learning so as to develop students' potentials in EFL learning as well as to assist students to become cognizant of the ways they learn most effectively. It also helps the students to develop techniques and tools to become more motivated and independent learners. The understanding of the students' beliefs of vocabulary learning and their vocabulary learning techniques use enables teachers and researchers to design appropriate materials and activities to help them improve their vocabulary learning so as to enhance their lexical competence.

In FLL, formal instruction is the primary source of input and can be the source of much misunderstanding and wasted effort. So, special attention must be given to presenting, practicing, and producing new vocabularies. Vocabulary learning problems may be barriers to successful language learning. Thus, solving these problems may be of great help to both students and teachers. If we want to provide guidelines and solve vocabulary acquisition problems, it is necessary to discover those problems and perceive their nature.

From researcher's observation, she can say that each activity (VFC) which is used during her class hours helps learners to understand the new words and pronounce effectively. They are also encouraged to interact with each other and say some examples and their fluency in pronunciation is improved gradually. This study might be helpful

to English teachers, curriculum designers, students and possibly parents. It will allow them to change their strategies which they use to draw students' attention while they are learning.

7. Definitions of Key Terms

Before we start our investigation of the vocabulary flash card strategy on the vocabulary knowledge, it is necessary to clarify some of the fundamental concepts involved in it.

7.1 Vocabulary

A person's vocabulary is the set of words they are familiar with in a language. A vocabulary usually grows and evolves with age, and serves as a useful and fundamental tool for communication and acquiring knowledge. Language teaching specialists generally agree that vocabulary is one of the most important aspects for foreign language learners to acquire since it is critical in conveying the meaning of a message. Vocabulary, in the abstract, represents a set of words for a language or a set of words that its speakers might use (Hatch & Brown, 1999). A word as a "single unit of language" (Oxford Advanced Learner's Dictionary 2000), conveys meaning on its own and is not part of any linguistic pattern that might change the word's meaning in connection with other words.

7.2 Vocabulary Learning

Increasingly, research in vocabulary emphasizes the importance of lexical learning in foreign language classrooms. Therefore, learning a foreign language means acquiring a non-native language outside the country where it is officially used. Vocabulary in the EFL classroom plays a very important role since it is crucial to conveying meaning and expressing one's ideas. Hence, students consider words to be important and are keen to learn them (Leki & Carson 1994; Sheorey & Mokhtari 1993; cited in Coady, 1997).

Vocabulary learning strategy emphasizes the importance of classroom activities since mainstream students are usually exposed to a foreign language only during class. Language activities should be age-appropriate for the learner and appeal to their needs (Allen 1983; cited in Coady, 1997). Classroom activities can be applied to any teaching method as long as the teacher considers the level of language proficiency of the students. Meanwhile, the various factors that affect vocabulary learning in the foreign language class need to be considered by the teacher, who also needs to be aware that second language learners have different academic needs than students learning their first language. Although different types of learner personalities prefer different lexical learning strategies, it is important that students are exposed to various kinds of instruction in order to successfully acquire productive knowledge of words.

7.3 Flash Card (FC)

One 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 card 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. Flashcards for EFL teaching or self-study have been used for years and are a useful tool for teachers and learners.

Flash cards are useful for drilling new letters, syllables, words, and other information. They are normally used in a classroom, but can also be used more informally. A flashcard or flash card is a set of cards bearing information, as words or numbers, on either or both sides, used in classroom drills or in private study. Flash cards can bear vocabulary, historical dates, formulas or any subject matter that can be learned via a question and answer format. Flash cards are widely used as a learning drill to aid memorization by way of spaced repetition.

7.4 Vocabulary Flash Card (VFC)

Vocabulary flash card or Word flash card is perhaps worth mentioning at this point, even though they are not actually pictures. However, being used in a similar way as picture flash card, they can often enrich the lesson. On top of that, those two can be indeed combined and applied together. As Wright (1990) pointed out, word flash cards are most typically used in teaching reading and writing. Nevertheless, they will find their use in teaching vocabulary too, offering valuable help mainly in teaching the spelling of newly learnt words, which definitely should not be neglected as it often is.

Learning from word card might be the simplest strategy of learning vocabulary. Nation (2001) describes this strategy in Learning Vocabulary in Another Language that a learner writes the foreign word on one side of a small

card, and its translation of the first language on the other. The learner goes through a set of cards and tries to recall its meaning.

Vocabulary flash card can be fun, colorful, and creative way to aid in memory and retention of vocabulary words. Flash cards are a tried and tested teaching and learning device inside and outside the classroom, for kids and adults alike. Some of these flash cards are designed to perfect your English while others can help you learn a new language entirely. The key to using flash cards is to look at the word or definition on one side, and test yourself to see if you can remember the answer written on the other. So you can perfect your knowledge of the vocabulary on the list and improve your overall vocabulary.

7.5 Learning

Learning is acquiring new or modifying existing knowledge, behaviors, skills, values, or preferences and may involve synthesizing different types of information. According to Ellis (1985) learning can be broadly defined as the internalized rules and formulas used to communicate in the second language.

7.6 Strategy

According to Oxford Advanced dictionary, strategy means the process of planning something or putting a plan into operation in a skillful way (Oxford, 2000). Linguists give several definitions of learning strategy. According to Rubin (1975) it means the techniques or devices used by a learner to acquire knowledge.

8. Method

8.1 Pilot Study

A pilot study is a small experiment designed to test logistics and gather information prior to a larger study in order to improve the latter's quality and efficiency. In fact, tests used in this study were designed in such a way that new words constituted the questions. The researcher made a sixty item multiple-choice test and did a pilot study on a smaller group. 5 items changed. The reliability of the test was calculated to be 0.94. This pilot study was carried out with one class (20 students) before the main phase of the study for the selection of sixty vocabulary items multiple choice test to be employed and administered during the main research. To make the test valid, the researcher made a correlation between the students' grades on their final exam of the preceding semester and their grades on the researcher's test in the pilot study. The correlation was 0.8116.

8.2 Design of the Study

A quantitative research was selected due to the nature of this research and the research questions. Besides, the appropriate design for this study was experimental. Two groups were selected. One group served as the experimental group and received treatment (VFC) while the other group served as the control group and received only the routine instruction. To ascertain the homogeneity of the two groups a language proficiency test was employed for this purpose. It should be mentioned that the control and the experimental groups were matched for everything except for the treatment. Both groups were 50 pre-university students. In order to measure the effectiveness of the treatment, the pretest/posttest design was selected. In this case, 60 vocabulary items were selected from the students' textbook. Before starting the treatment, the researcher made a sixty item multiple-choice test and did a pilot study on a smaller group. The sixty item multiple-choice test was split into two equal halves based on odd and even numbers as the pretest and posttest.

8.3 Participants

The population of the study comprised all per-university students in mathematics field in the academic year 2011/2012.The participants of the study were 50 female Iranian pre-university students at a public school in Astaneh. They were randomly selected among the 100 students who participated in a general proficiency test and their close homogeneity was confirmed by utilizing the statistical technique of t-test. All participants were EFL learners, aged 18 and all of them had studied English as a compulsory subject in the previous six years. They had four hours of English per week with a non-native instructor. Hence, all the students came from the same linguistic background and the teacher was the same for the two groups. Those selected students were randomly assigned into two groups of 25 to form the experimental and the control groups of the study to be tested on the effect of a new vocabulary learning tool (VFC).

8.4 Materials

The instruments used in this study included a general test of language proficiency, a pretest/posttest and a questionnaire. The aim of a general test was to divide the students into two almost homogeneous groups. The pretests and posttests were a vocabulary test prepared by the researcher based on the pre-university students' textbook. That is, 60 vocabulary items were selected from the students' book. Sixty item multiple choice tests were

split into two halves based on odd and even numbers as the pretest/posttest. Each of them consisted of 30 multiple-choice items of vocabulary.

During the last session, in order to probe the learners' perspective on vocabulary flash card strategy and to see whether they were satisfied by the teaching method or not, a questionnaire was submitted. The questions were about their interests and the way they liked the situation to see whether the new technique used in this study increased their vocabulary knowledge and was fun for them or not and also to get an idea or a point of view about the way used in experimental class. As you know, according Brace (2004, p. 7) questionnaire is a good way to access the learner's point of view. Each item was fixed to a 4-point Likert scale, ranging from 'Strongly Disagree' (1) to 'Strongly Agree' (4)

8.5 Procedures

First, the general test was administered to 100 subjects. The time given was twenty minutes and the correct answer to each item received one point. There was no penalty for false responses. After taking the exam, each subject was rendered a grade based on her performance on the test. Out of 100 students, 50 students whose grades were between one standard deviation above and below the mean were selected, and divided randomly into two groups. Then, a pretest and posttest were taken the students. At the first session, the vocabulary pretest was administered to find whether the students know the meaning of the chosen words or not. The time given for this test was thirty minutes and the students were asked to answer the thirty item vocabulary test. The correct answer to each item received one point and there was no penalty for false responses.

The whole research project took place in one semester and the students were taught four lessons of the book "English for pre-university students". During the semester, the new words of each lesson were presented to the experimental group students through vocabulary flash card while the control group students didn't receive this type of treatment and the new words were presented through synonyms, definitions and mini contexts. At the end of the semester vocabulary development of the students in all two groups were tested using the posttest. On the basis of these tests the efficacy of this new technique of vocabulary teaching was determined.

This seven-step vocabulary flash card consisted of word entity, word pronunciation, different parts of speech, synonyms and antonyms, dictionary example (Oxford Dictionary), learner's example and L1 definitions.

Front- page

Excellent(adj) **[1]**

■ ***/'eksɔlɔnt /*** **[2]**

■ ***Excel (v)*** **[3]**
Excellence (n)
Excellently (adv)

Back- page

■ ***Very good, extremely good*** **[4]**

■ ***She speaks excellent French.*** **[5]**

■ ***Exercising is an excellent / way to feel happy.*** **[6]**

[7] **عالی، بسیار خوب**

In this sample seven steps need to be developed in both sides. The treatment of the study took 8 sessions and in each session about 7 to 8 new words were taught to the experimental group. The synonyms of the new words were given through presenting vocabulary flash card (VFC) to make clear the meaning of each new word. At the next session before teaching new words as a warm up a reviewing of the previous session words was given to each student. A warm-up activity is the perfect time to review language skills presented in the previous English lesson (Leblanc, 2011). According to Flanigan (2011) performing warm-up activities in English class will help students be in the right frame of mind to learn. Then the students were to find the new words in the flash card according to the definition and synonyms about each word presented by the teacher. The first student who found the word raised her hand and introduced the new word to the other students.

8.6 Scoring

General proficiency test (GPT) taken by 100 participants were scored by the researcher, who assumed one point for the correct response and zero for the wrong one. Hence, the Students' scores were calculated or ranged from 0 to 20 in general proficiency test which is used to their homogeneity. The vocabulary pretests and posttests taken by 50 participants were scored by the researcher, who assumed one point for the correct response and zero for the wrong one. So the scores of the participants in the pretests and posttests of both groups (experimental and control) were calculated or ranged from 0 to 20.

8.7 Data Analysis Procedures

The data gathered on variables were analyzed by the following methods through SPSS software.

- Descriptive Statistics was used to determine the mean and standard deviation of each group on the pretests and posttests.
- Independent t-test was used to find the difference between the levels of the students of both groups on posttests.
- Matched t-test was used to compare the two mean scores of the students of both groups in pretest and posttest on vocabulary tests.

9. Results

9.1 Pretest Data

After students took the vocabulary pretest and posttest, the mean scores, the medians, the standard deviations, the variances, the range, the minimum and the maximum of the vocabulary pretest and posttest scores of the control and the experimental groups were calculated respectively. Table 1 and 2 represent the results.

As Table 2 shows, like the control group, the mean of experimental group's posttest scores (16.72) is larger than the mean of pretest scores (14.28). Therefore, from these numbers can conclude on the average the way of teaching has caused the improvement of students' scores in both relevant groups, but it is important to know that such a conclusion is only a descriptive conclusion. It should be tested about being meaningful this progress.

As Table 1and 2 show the mean of the two groups is similar in pretest, but the mean of the two groups was different in posttest. The result of pretest showed that the two groups were almost at the same level of vocabulary knowledge and the mean of two groups were not of great difference.

9.2 Posttest Data

After giving treatment (vocabulary flash card) to the experimental group and placebo to the control group, the research questions of the study were to be answered "Is there any significant difference between the impact of traditional teaching method and using vocabulary flash card on Iranian pre-university students' vocabulary knowledge? Does using vocabulary flash card have a positive effect on students' vocabulary knowledge?" to answer these questions the researcher used two comparisons.

First the performances of the two groups compared and second the performances of the two groups in the pretest and posttest compared to investigate their progress and the influence of using vocabulary flash card and traditional treatment. Table 1 and 2 show the results. The posttest results show that there is a significant difference between the control and the experimental group regarding their vocabulary knowledge. In order to see this difference is meaningful the researcher made a t-test which is shown in the Table 3.

In the Table 3, the t observed is 9.679 and t critical at our selected significance level of 0.05 for degree of freedom 24 is 2.064. In other words, as the results in the Table 3 show, the t observed exceeds the t-critical implying that the experimental group performed significantly better in the posttest. As Table shows the posttest results reject the first null hypothesis and it was concluded that there is a significant difference between the experimental and the control group in terms of their vocabulary knowledge at the end of the study.

Figure 1 shows the bar graph of means of pretest and posttest in the two groups. As it is seen in Figure 1 the mean scores of posttest of the experimental group is higher than the mean scores of their pretest, and it can be concluded that there is a significant progress from the pretest to the posttest. Also there is not a significant progress in the performances of the control group from the pretest to the posttest.

To see how each group performed in its pretest and posttest, the paired sample t-test technique was utilized to compare the means of each group in its pretest and posttest performances. The results are presented in Tables 4 and 5. As a result the statistical technique used to investigate the second and third null hypotheses was paired sample t-test.

Table 4 represents mean value, number of cases, standard deviation, and standard error of means in the control group.

Table 4.1 also shows the paired sample t-test statistics of the control group in pretest/posttest:

It is clear in Table 4 there is a little progress between the performances of the control group from pretest to posttest. The t observed is less than the t critical and it was concluded that the third null hypothesis was supported. Traditional teaching method has not a positive effect on pre-university students' vocabulary knowledge.

Table 5 shows mean value, number of cases, standard deviation, and standard error of means.

Table 5.1 also represents the paired sample t-test statistics of the experimental group in pretest/posttest:

It is clear from Table 5.1 the observed t is 18.751 which was greater than the critical value 2.064, thus it was concluded that there is a significant difference between the means of the two sets of scores. In other words, the difference between the performance of the experimental group on pretest and posttest was statistically significant. That is, the experimental group showed greater growth overall on vocabulary knowledge from pretest to the posttest. Overall, the experimental group represented a greater increase than the control group.

The based on the results the second null hypothesis was rejected and it was concluded that using vocabulary flash card has a positive effect on the experimental groups' progress in their vocabulary knowledge at the end of the study.

10. General Discussions

The results of the study indicated that though both methods enhanced vocabulary development of the learners from the pretest to the posttest, the experimental group seemed to be better than the control group. That is, the experimental group students had significantly better vocabulary gain scores than the control group students at the end of the study. During the eight-week study, both groups followed the same course book which provided the students with a number of the new vocabularies (words). While the control group students learned vocabulary only through traditional method, the experimental group students learned vocabulary only through vocabulary flash card as a new method.

The experimental group students in the present study were shown explicitly the vocabulary flash card strategy which they could try to achieve better vocabulary learning. The students discussed this strategy was more effective than other strategies, and received help and feedback from the teacher. When they failed to only memorize a new word, they tried to use vocabulary flash card strategy, as they were aware of the existence of another strategy which they could fall back on. Thus, the instruction seemed to help them to learn better new words their performance. The vocabulary instruction through vocabulary flash card empowered pre-university students in learning the relevant vocabulary. During the instruction period, students themselves found that they benefited from this strategy. It seemed that after a certain amount of practice and use, they knew how and when to use this strategy for remembering new words and for retrieving it when needed.

Unlike the control group students, the students in the experimental group were free to interact with each other. This dynamic interaction among the students seemed to contribute positively to the classroom atmosphere. The experimental group teacher related that the instruction period functioned like a 'relaxation period' compared to the relative formality of the regular instruction. Within this framework, many experimental group students indicated that they enjoyed this instruction as it was 'fun to have a teacher who allows them to interact with each other in class and also they can ask her for her help. The same teacher, on the other hand, reported that it was generally difficult to keep the interest of the control group students in the last hour.

Another important feature of the current study is that the students were required to apply this strategy (VFC) inside the classroom and relate it to their friends on a regular basis, i.e., every day. During this process, they learned how they applied this strategy (VFC) to their own vocabulary learning. According to Laufer (1997), vocabulary learning is at the heart of language learning and language use. In fact, it is what makes the essence of a language. Without vocabulary speakers cannot convey meaning and communicate with each other in a particular language.

Students in the experimental group seemed to benefit from this kind of learning, as they enlarged their vocabulary knowledge at the end of the study. Results showed that students learned better the relevant words. Yet, it should be noted that the participants in the study only focused on learning new vocabulary. The participants in this study were pre-university students who had limited time to learn the vocabulary. Thus, the experimental group students were highly motivated to learn and use this strategy (VFC) as they felt that this strategy would help them to achieve their aims.

As Wenden (1985; cited in Griffiths, 2006) says, an old proverb states: "Give a man a fish and he eats for a day. Teach him how to fish and he eats for a lifetime." According to the meaning implied by this proverb, the teachers should provide the students with some fruitful techniques that may help them learn better without the direct help of teachers. Hence, learning through vocabulary flash card makes them autonomous.

There were a number of reasons for the greater effectiveness of vocabulary flash card. It provided learners with opportunities to encounter vocabulary repeatedly. Teaching through vocabulary flash card was also more memorable because students were motivated by using them with each other. It allowed them to learn this vocabulary more effectively than with traditional method alone. Vocabulary flash card also engaged students in ways that traditional

method alone could not; for example, by asking students to utilize the new words in the example the researcher was able to create interest and attention.

11. Conclusion

This study investigated the effect of vocabulary flash card on the vocabulary knowledge of two groups of Iranian pre-university students. Through the analysis of the findings gotten from the students' vocabulary pretests and posttests, it was concluded that the contribution of vocabulary flash card in teaching vocabulary to students led to a higher level of vocabulary improvement. Using vocabulary flash card facilitates their involvement in the class work by sharing answers, trying to participate, paying attention, giving the examples, encouraging to take part in the lesson, participating as volunteers, interacting with each other in a low-risk, warm-up activity, utilizing the new words in the example, working on the vocabulary and pronunciation. The findings revealed that participants in the experimental group, who had received the treatments on vocabulary flash card, significantly enhanced better performance in a vocabulary test. Therefore, consequently, through rejecting the first and second null hypothese, the researcher can claim that vocabulary flash card is a useful way of enhancing vocabulary learning and can play an important role in teaching and learning vocabulary to Iranian pre-university students.

The result of this study indicated that there was significant difference in the efficiency of flash card compared to traditional teaching method. It was confirmed that learning vocabulary through flash card would lead to better learning than traditional method for four main reasons (Mondria & Mondria-de Vries, 1994; Nakata, 2008; Schmitt & Schmitt, 1995). First, new words can easily be practiced extensively with flash card. 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 card increases vocabulary retrieval. Since learners are presented with a second language 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 traditional method causes rote learning. Finally, there may be problems of attention with traditional method, because some words may receive less attention than others because of their particular positions in the class. Nevertheless, there is not such a problem in learning with flash card since they tend to be more flexible.

12. Implications of the Study

The results of present study have several important implications:

- First, since vocabulary is a very important part of the language, a teacher must equip himself/herself with up-to-date techniques and methods of teaching them. So, the results of this research can be valuable for language teachers at the level of middle school, high school, pre-university and universities.
- Second, the findings of this research could help those dealing with foreign language teaching, such as syllabus designers, material developers, test makers, and the like.
- Third, the present study showed a new technique in vocabulary learning and teaching such as seven-step vocabulary flash card in order to facilitate vocabulary learning for students and also provide an opportunity for them to use or review their vocabulary in every situation.
- Fourth, this strategy (VFC) is very practical and useful for those who prepare themselves for international exams such as TOEFL and GRE.
- Fifth, the results of this study proved vocabulary flash card is an effective way of enhancing vocabulary learning for students.
- Sixth, this study introduced a strategy (VFC) that make vocabulary learning interesting and easy for learners. It also familiarized teachers with a technique for presentation, practice and production.
- Seventhly, the findings of this study promote the meaningful learning and decrease the problems of the rote learning.
- Eighthly, the findings of this study might be applicable to the learning of all language skills and sub-skills such as listening, speaking, pronunciation, vocabulary, grammar and so on.

13. Limitations of the Study

Due to its own particular features, certain limitations are imposed on this study:

- First, the study or the language chosen was restricted to pre-university students of a public school in Iran.
- Second, the subjects involved in this study were 100 female Iranian pre-university students of a public school in Astaneh.

- Third, in this research, the researcher limited the problem to make easier the research. In pre-university school, there are many interesting aspect to study, but the researcher only focused on the increasing students' vocabulary through flash card to pre-university students.
- Fourth, the flash card used in this research was limited on the vocabulary flash card that was used to explain new words on the textbook.
- Fifth, the researcher did not consider the impact of psychological factors such as intelligent, anxiety and motivation on students' learning.
- Sixth, the researcher also had to select the vocabularies from their own textbook because the school didn't let her to use her own vocabularies.

14. Suggestions for Further Studies

The following suggestions are presented for those who are willing to contribute to the present study by conducting studies on the impact of using vocabulary flash card on students' learning.

- Firstly, students at other levels of language proficiency, i.e. intermediate or advanced, can be subjects for another experiment.
- Secondly, the same experiment with male students within the same age range would be necessary to confirm the findings of this study.
- Thirdly, the setting which was chosen for this study was a public school. The same technique could be used in other settings, for example, language institutes, private schools and universities.
- Fourth, other nationalities can be examined in a new research.
- Fifthly, in this study, vocabulary flash card was used to teach vocabulary to pre-university students. In another research, it can be used to teach other components of the language, such as grammar.
- Sixthly, interested researchers can investigate the impact of other types of alternative flash card techniques on language skills such as picture flash cards, etc.
- Seventhly, it would be fruitful to investigate the relationship between vocabulary flash card and students' motivation and retention.

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Table 1. Descriptive Statistics for Pretest and Posttest of Control Group

Statistics			
		Pretest of Control Group	Posttest of Control Group
N	Valid	25	25
	Missing	0	0
Mean		14.04	14.28
Median		14.00	15.00
Std. Deviation		.790	.936
Variance		.623	.877
Range		3	3
Minimum		13	13
Maximum		16	16

Table 2. Descriptive Statistics for Pretest and Posttest of Experimental Group

Statistics			
		Pretest of Experimental Group	Posttest of Experimental Group
N	Valid	25	25
	Missing	0	0
Mean		14.28	16.72
Median		14.00	17.00
Std. Deviation		.843	.891
Variance		.710	.793
Range		3	3
Minimum		13	15
Maximum		16	18

Table 3. Independent Samples Test

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Score	Experiment	25	16.96	1.020	.204
	Control	25	14.28	.936	.187

Independent Samples Test

		Levene's Test for Equality of Variances		T-Test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Score	Equal Variances Assumed	.115	.736	9.679	48	.000	2.680	.277	2.123	3.237
	Equal Variances not Assumed			9.679	47.654	.000	2.680	.277	2.123	3.237

Table 4. Paired Samples Test of the Control Group

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Posttest of Control Group	14.28	25	.936	.187
	Pretest of Control Group	14.04	25	.790	.158

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair1	Posttest of Control Group - Pretest of Control Group	.240	.597	.119	-.007	.487	2.009	24	.056

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Table 5. Paired Samples Test of the Experimental Group

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Posttest of Experimental Group	16.72	25	.891	.178
	Pretest of Experimental Group	14.28	25	.843	.169

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Posttest of Experimental Group - Pretest of Experimental Group	2.440	.651	.130	2.171	2.709	18.751	24	.000

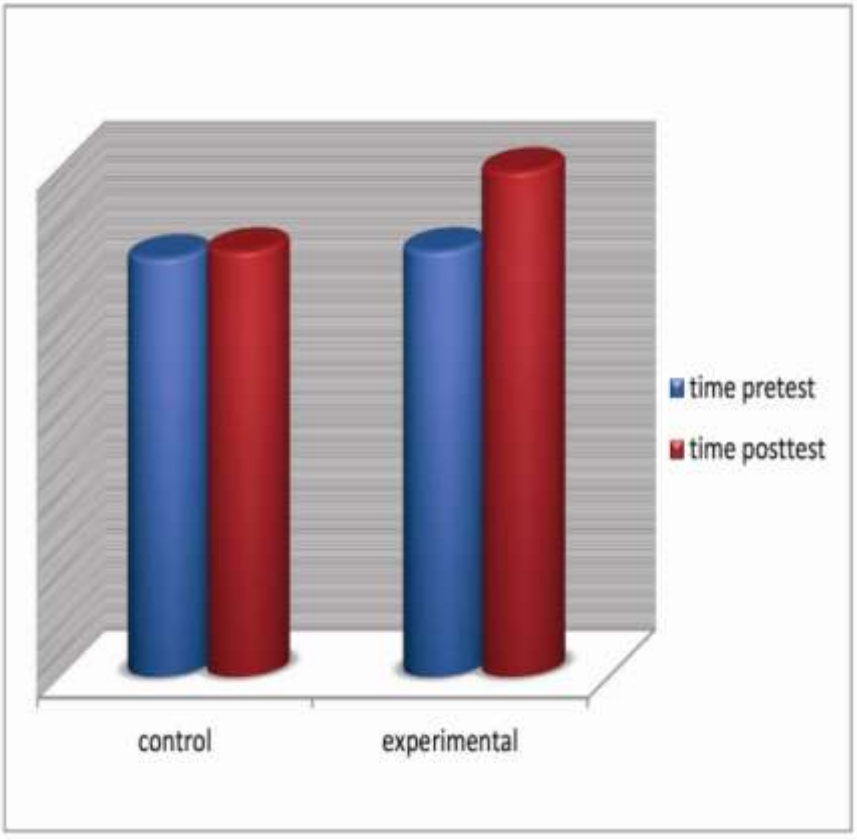

Figure 1.