The Comparison of the Effects of Keeping Lexis Notebooks Versus Keeping Vocabulary Notebooks on Students' Vocabulary Learning

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Abstract. The present study intended to compare the effects of keeping lexis notebook strategy versus keeping vocabulary notebook strategy on students' vocabulary learning and explored students' attitudes towards each strategy. Strategy is a series of actions which a learner uses to facilitate language learning. The participants were 60 intermediate level female students studying at Boostan-e-Marefat language institute in Marvdasht, Southern East of Iran. They were selected and assigned randomly to treatment and control groups. A lexis notebook program was implemented in one class over a 4-week period, with the remaining class acting as control group, following the same curriculum but keeping vocabulary notebooks. The instruments used in this study included a pretest/posttest and a questionnaire. At the end, the results of this study indicated that keeping lexis notebook strategy is more effective than keeping vocabulary notebook strategy on students' vocabulary learning and based on the data collected from the questionnaire it appeared that students have more positive attitudes toward keeping lexis notebook than keeping vocabulary notebook.

Keywords: Lexis, lexis notebooks, vocabulary learning, vocabulary strategy.

1. Introduction

1.1 Background of the problem

Vocabulary learning is an important issue and learning new language in a way that is memorable is also important. There are lots of strategies in terms of vocabulary learning. Language learning strategies are defined as "any set of operations, steps, plans, and routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information" (Wenden & Rubin as cited in Walters & Bozkurt, 2009, p.404).

Schmitt (1997) defined a taxonomy of learning strategies especially aimed at learning vocabulary. This taxonomy is divided into two categories: discovery and consolidation strategies. In discovery strategies, learners use to specify the meaning of new words when they first encounter them and consolidation strategies are used to remember the word after knowing the meaning. Within these two groups, specific strategies are further categorized as determination, cognitive, metacognitive, memory, or social strategies.

Two strategies of vocabulary learning are keeping vocabulary and lexis notebooks. Schmitt and Schmitt (1995) claimed that "in recent years, proponents of learner-based teaching have promoted the idea of giving their students the tools and strategies to learn independently. In terms of vocabulary learning, one way of achieving this is to have them keep vocabulary notebooks" (p.133). Fowle(2002) stated, "with the recent focus of applied linguistics on lexical competence, and the impact this has had on language teaching, many language teachers are now aware of the necessity of making vocabulary a central part of their teaching practice" (p.380).

Kim (2009) noted there was a surge in studies on the mental lexicon. Consequently, as advocated by Lewis (2002, 2008), lexical approaches were receiving more attention in subsequent language learning and teaching. And while vocabulary notebooks have been widely used for lexical learning, findings on the mental lexicon (a person's mental store of words, their meanings and associations) suggest that a learning tool devised according to the aspects that entail lexical knowledge, in conjunction with connectionist elements in learning and use, as initially

proposed by Rumelhart and McClelland (1986), might prove to be more beneficial for language learners in their aims of acquiring a subsequent language for use (p.176).

Teachers like to investigate on the best techniques for vocabulary teaching. Amiryousefi and Dastjerdi (2010) stated, "The lexical approach to second language teaching has received interest in recent years as an alternative to grammar-based approaches. The lexical approach concentrates on developing learners' proficiency with lexis, or words and word combinations" (p.91). Richards and Schmidt (2002) defined 'mental lexicon' as, "a person's mental store of words, their meanings and associations" (p.327). "the information in the mental lexicon is always being updated. New words are added, new connections to existing words are made and unused words may be forgotten" (Aitchison as cited in Farahian, 2011, p.56).

1.2 Research questions

The following research questions were posed:

1) Is there any significant difference between the effect of keeping lexis notebook and keeping vocabulary notebook on EFL learners' vocabulary learning?

2) What are students' attitudes toward keeping lexis notebook and keeping vocabulary notebook?

2. Review of Literature

2.1 Vocabulary notebooks strategy

A vocabulary notebook is a learning tool that learners record elements that improve the learning of new and useful vocabulary items. The use of a vocabulary notebook in the language classroom is new. Even in the basic form of simply recording an entry, the vocabulary notebook is found to be helpful to the learner, McCarthy (as cited in Kim, 2009, p.188) claims, "The very act of writing a word down often helps to fix it in the memory". In detail, as illustrated by McCrostie (2007), a common vocabulary notebook format includes the form of the L2 entry along with an L1 equivalent and an example sentence; L2 definitions are left optional. While some vocabulary notebooks may contain other

aspects of lexical knowledge, as demonstrated in Fowle (2002), they were brought up merely as means of "exposing the learners to various methods of recording vocabulary" (Cited in Kim, 2009, p.189). Keeping a vocabulary notebook is categorized as a cognitive strategy within the larger division of consolidation strategies.

Chien (2013) focused on non-English major freshmen's perception and practice of the vocabulary notebook as their vocabulary learning strategy. The learners in this study had a positive attitude toward vocabulary notebooks, because vocabulary notebooks helped them learn English words and increase their word knowledge, particularly of word families.

Bozkurt (2007) investigated the effectiveness of vocabulary notebooks on vocabulary acquisition, and the attitude of teachers and learners towards keeping vocabulary notebooks. The instruments used in this study consisted of receptive and productive vocabulary tests, free vocabulary use compositions, group interviews with the students and a one-to-one interview with the teacher of the experimental group. The data analyses showed that vocabulary notebooks are suitable for vocabulary acquisition. Besides, both students and their teacher stated positive attitudes to vocabulary notebooks.

2.2 Lexis notebooks strategy

A lexis notebook is a learning tool to improve lexical knowledge. And learners should write spoken form, written form, denotative meaning, paradigmatic relations, syntagmatic relations; part of speech of a lexical item. The lexis notebook should be arranged in a loose-leaf binder. The advantage of this format is that the pages can be separated and carry around to study in free time very easily. The pages should be large enough to include additional information that the students want to add later.

Trowbridge (2012) stated, "The idea behind a lexical notebook is to organize new lexis in a way that would closely resemble the way it occurs in the real language. Words are not used in isolation and therefore it is extremely useful to record new words together with their lexical partners (collocations) and , in other words, record chunks of language as

opposed to isolated words. Ideally, lexical notebooks should be organized by topics" (p.1).

Schmitt and McCarthy (1997) maintained, "The more energy a person expends when manipulating and thinking about a word, the more likely it is that they will be able to recall and use it later" (p.3).

Repetition is an important key for remembering new words. Schmitt (1995, p.8) recommends, "new words need to be recycled regularly to be learnt and one method to do this is to have students go back and fill the above kinds of information on a scheduled basis". Besides, students should notice the way a word is spelt, its form, and meaning.

Many vocabulary learning strategies are used by learners in their lexis notebooks. Multiple determination strategies are used by learners to find meaning such as using dictionaries, inferring meaning from context and asking for clarification (that is social strategy). Learners also use many consolidation strategies which help learners to remember word and word knowledge such as memory strategies (joiningthe word to its synonyms and antonyms or grouping the words), cognitive strategies (written repetition and note taking), and metacognitive strategies (continuing to study a word over time). Learners use these strategies to learn vocabularies in a better way.

Kim (2009) published a research in which he studied on implementing a lexical approach through a lexis notebook. Participants were 39 Korean middle and high school teachers of English in the Intensive In-service English Teacher Training Program (IIETTP) at S. University. The instruments were a questionnaire and learners' lexical entries. Results showed that while the trainees believed that vocabularies are important for their language learning, in general, there was a lack of commitment to the process. Kim (2009) expresses, "the reasoning behind this lack of motivation in improving their lexical knowledge could be that their view of lexis remains in the traditional sense of vocabulary" (p. 209). The trainees only paid attention to the meaning and L1 translation equivalent. A lot of neutral responses were given to the questionnaire, there seemed to be a general reaction of indifference to their profession. In this study, no significant perceptions were seen about the use of a lexis notebook.

3. Methodology

3.1 Participants
The participants were 60 intermediate level female students studying at Boostan-e-Marefat Language Institute in Marvdasht, Southern East of Iran. They were randomly selected and assigned into two groups of 30 to form the treatment and control groups. All participants were EFL learners and the students' ages ranged from 17 to 20 years. They had studied four hours of English per week with a non-native instructor, and the teacher was the same for the two groups.

3.2 Instruments

3.2.1 A pretest-posttest
The pretest and the posttest were vocabulary tests which were made by the researchs from the students' complementary book. The title of book was Vocabulary Focus Part (1) by A. Toloo (2005). This vocabulary test included target words (words and lexical items that were written in vocabulary and lexis notebooks). The vocabulary test (see Appendix B) consisted of 40 multiple-choice items of vocabulary. The pretest was given to the students two weeks before the implementation of vocabulary and lexis notebooks, and the posttest was given to them at the end of the four-week period.

3.2.2 A questionnaire
In order to find out the students' attitudes toward lexis notebook and vocabulary notebook, a questionnaire was administered at the end of four-week period. The first item (I) of this questionnaire contained 5 choices which asked learners about the strategies they used more. The questionnaire (see Appendix E) consisted of 34 items about students' attitudes toward lexis notebook and vocabulary notebook. Each item was fixed to a 5-point Likert scale, ranging from 'Strongly Agree' (1) to 'strongly Disagree' (5). In question 35, students were given a chance to choose either lexis notebook strategy or vocabulary notebook strategy, the one they liked more.

To ensure that the attitude questionnaire functions well, a small group of (n=12) intermediate students were selected randomly from the

other class for the pilot testing. Before piloting the questionnaire, the participants were informed about the objective of the study.

Table 1. Reliability statistics of the attitude questionnaire

Cronbach's Alpha	No of Items
.801	34

According to Table 1, the overall internal consistency estimated is. 801 highlighting the instrument to be highly reliable in measuring participants' attitude.

3.2.3 Scoring

Pretests and posttests of both groups (treatment and control) were scored by the researcher, who determined one point for the correct response and zero for the wrong one. Hence, the students' scores ranged from 0 to 40.

3.3 Vocabulary and lexis notebooks implementation

The implementation of keeping lexis and vocabulary notebooks lasted for four weeks. Sixty target words and lexical items (see Appendix A) were chosen from the four course units taught during the 4-week period. The low frequency words were taught to the students. At the beginning of each week 15 words and lexical items from the unit were presented. Words and lexical items were recorded by students in their notebooks. Some aspects of word knowledge (e.g., part of speech, synonym, antonym, collocation) for some of the words were explained by the teacher and the students were expected to complete the same information for other words by themselves. Teacher provided information including spoken form, written form, part of speech, first-language translation, definition, synonyms, antonyms, collocations, and expressions for lexical notebooks. The organization of lexis notebooks was based on topics of learners' text book. The information was provided by the teacher for vocabulary notebooks including words in alphabetical order with their L1 translation and L2 synonyms. Students in both groups were expected to write example sentences for the target words as a part of

activity. Every week students were exposed to a matching exercise on the words of the week (see Appendix D).

3.4 Procedures

In early July, permission for implementing the study was received from the manager of Boostan-e-Marefat language institute in Marvdasht, Southern East of Iran. In order to determine the effects of keeping vocabulary and lexis notebooks strategies on students' vocabulary learning, the pre/posttests which consisted of 40 multiple-choice items of vocabulary were taken by the researcher from the complementary book. At first, the vocabulary pretest was given to the students in the control and the treatment groups. The time given was thirty minutes. The correct response to each item received one point and the wrong one received zero. There was no penalty for false responses. Two weeks after the pretest, the vocabulary and lexis notebooks implementation started in the control and the treatment groups respectively. This two-week period between the tests and the actual study was aimed to prevent students' remembering the definitions and the sentences they were asked in the tests. The information was determined for the students in the treatment group including written form, spoken form, part of speech, first-language translations, definitions, synonyms, antonyms, collocations, and expressions. The organization of lexis notebooks should be based on topics. But the information was determined for the students in the control group including words in alphabetical order with their L1 translation, and L2 synonyms. At the end of 4-week of implementation period, the vocabulary posttest was administered to two groupsin order to see if a change occurred in the learners' vocabulary learning. After that, the questionnaire was given to the students of both groups in order to explore their attitudes towards each strategy.

4. Results and Discussion

4.1 Statistical analyses

An independent t-test was used to compare the means of the pretest (vocabulary test) between the treatment and the control groups. The pertaining results are presented below.

Table 2. Group statistics of the pretest

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Treatment	30	21.7333	3.18329	.58119
	Control	30	20.3333	2.48212	.45317

Table 3. T-test to compare the participants' vocabulary scores in the pretest

		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
Pretest	Equal variances assumed	2.609	.112	1.900	58	.062	1.40000	.73698	-.07523	2.87523

$p < .05$

As Table 3 above reveals, there is no significant difference between mean scores of the two groups in the pretest (sig.=.062). To compare the results of the post-test between the treatment and the control groups, the independent sample t-test was run.

Table 4. Group statistics of the post-test

	Group	N	Mean	Std. Deviation	Std. Error Mean
	Treatment	30	31.4000	4.50747	.82295
Post-test					
	Control	30	29.1667	3.02955	.55312

According to Table 4, the treatment group (mean=31.40) outperformed the control group (mean=29.16) in the post-test.

Table 5. Independent sample t-test of the post-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-test	Equal variances not assumed	6.488	.014	2.252	50.760	.029	2.23333	.99155	.24248	4.22419

$p < .05$

The results of Table 5 clearly show that the difference between the two groups' performances on the post-test is significant ($sig. = .02$) which firmly reject the quality of the performance in the vocabulary test between the treatment and the control groups.

Afterwards, paired t-test was used to compare the results of the pretest and post-test in the treatment group. Results are shown below:

Table 6. Paired sample statistics of the treatment group

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	21.7333	30	3.18329	.58119
	Post-test	31.4000	30	4.50747	.82295

Table 7. Paired sample t-test of the treatment group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest – Post-test	-9.66667	4.27772	.78100	-11.26399	-8.06934	-12.377	29	.000

p <.05

Since the p value is .000 which is less than < 0.05, it can be concluded that there is a significant difference between the performance of the participants in the treatment group in the pre-and post-test.

With regard to Table 6, the mean of the post-test (31.40) is greater than that of the pretest (21.73). In other words, the treatment has had a positive effect on the participants. To analyze the difference between performances of the control group in the pre-and post-test, paired sample t-test was applied. Results are demonstrated below.

Table 8. Paired sample statistics of the control group

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	20.3333	30	2.48212	.45317
	Post-test	29.1667	30	3.02955	.55312

Table 9. Paired sample t-test of the control group

		Paired Differences					t	df	Sig. (2-
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				tailed)
					Lower	Upper			
Pair 1	Pretest – Post-test	-8.83333	3.04091	.55519	-9.96883	-7.69784	- 15.910	29	.000

p <.05

Since the p value is .000 which is less than < 0.05, it can be concluded that there is a significant difference between the performance of the participants in the control group in the pre-and post-test. According to the results in Table 8 the mean score of the control group in the post-test (29.16) is greater than that of the pretest (20.33).

4.1.1 Statistical analyses of the attitude questionnaire

To answer the second question, the researcher applied the correlation test. Table 10 below illustrates the pertaining results.

Table 10. Correlation between the post-test and attitude scores

		Post-test	Attitude
Post-test	Pearson Correlation	1	.591[**]
	Sig. (2-tailed)		.000
	N	60	60
Attitude	Pearson Correlation	.591[**]	1
	Sig. (2-tailed)	.000	
	N	60	60

**. *Correlation Is Significant at the 0.01 Level (2- tailed).*

As the Table 10 shows, the Pearson Product Moment correlation co-efficient was .591 and the significance level was .000. Thus, it can be

concluded that the correlation coefficient is significant, that is, there is a positive and moderate correlation between the post-test (vocabulary) and attitude scores.

4.2 Discussion

The first research question was about the difference between the effect of keeping lexis notebook and keeping vocabulary notebook on EFL learners' vocabulary learning. This research question was answered by looking at the treatment and the control groups' performances on the pre-and posttests. The quantitative results of this study showed that although both strategies improved vocabulary learning of the students from the pretest to the posttest, the treatment group out-performed the control group. During the four-week study, the same course book was followed by both groups. While the controlgroup students learned vocabulary through keeping vocabulary notebook strategy, the treatment group students learned vocabulary through keeping lexis notebook strategy. The results of this study indicated that keeping lexis notebook strategy was more effective than keeping vocabulary notebook strategy on students' vocabulary learning.

The second research question was about the attitudes of students toward keeping lexis notebook and keeping vocabulary notebook. Based on the data collected from the questionnaire, it appeared that students have more positive attitudes toward keeping lexis notebook than keeping vocabulary notebook.

In scientific literature, language learning strategies are commonly defined as "any set of operations, steps, plans, and routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information" (Wenden & Rubin as cited in Walters & Bozkurt, 2009, p.404). And learners use language learning strategies to make language learning more successful and enjoyable. So it can be expected that they can have a significant role in the learning vocabulary.

To the best of our knowledge, no study has addressed itself directly to the comparison of the effects of keeping lexis notebooks versus keeping vocabulary notebooks on students' vocabulary learning. Our attempt is the first of this kind. But the results of this study are in line with

Chien (2013) that focused on non-English major freshmen's perception and practice of the vocabulary notebook as their vocabulary learning strategy. The learners had a positive attitude toward vocabulary notebooks.

This finding is in agreement with Bozkurt's (2007) findings who investigated that the effectiveness of vocabulary notebooks on vocabulary acquisition and the attitude of teachers and learners towards keeping vocabulary notebooks. The data analyses showed that vocabulary notebooks are suitable for vocabulary acquisition. Besides, both students and their teacher stated positive attitudes to vocabulary notebooks.

The findings of the current study are inconsistent with Kim's (2009) findings that published a research in which he studied on implementing a lexical approach through a lexis notebook and concluded that no significant perceptions were seen about the use of a lexis notebook.

5. Conclusions, Implications & Suggestions

5.1 Conclusions

The purpose of the current study was to compare the effects of keeping lexis notebooks versus keeping vocabulary notebooks on students' vocabulary learning. The findings showed that participants in the treatment group, who had been taught to keep lexis notebook, out-performed in a vocabulary test. The findings rejected the null hypothesis; the researcher can claim that the students in the treatment group who applied lexis notebooks out-performed the students in the control group who applied vocabulary notebooks.

The results of this study showed that there was significant difference between the students in the two groups who applied two different strategies. Learning vocabulary through keeping lexis notebook would lead to better learning. The use of a lexis notebook put in to practice a lexical approach to language learning.

5.2 Pedagogical implications

This study has several important implications: one important part of the language is vocabulary; a teacher should teach vocabularies by using up-to-date techniques and strategies. Vocabulary and lexis notebooks are

two strategies in helping students to learn vocabulary. The results of this study showed that lexis notebook strategy is more effective way for improving vocabulary learning especially for motivated students. The lexis notebook requires more effort than vocabulary notebook, which is more beneficial in learning.

As the students didn't learn all of the words even by the use of lexis notebook, keeping a lexis notebook is not the ultimate solution for teaching vocabulary, and more attention should be given to vocabulary instruction.

5.3 Suggestions for further research

The following recommendations are given for those who are willing to further investigate the comparison of the effects of keeping lexis notebooks versus keeping vocabulary notebooks on students' learning.

Firstly, students at other levels of language proficiency, i.e. advanced, can be subjects for another experiment.

Secondly, the same experiment with male students within the same age range would be necessary to prove the findings of this study.

Thirdly, the setting which was chosen for this study was a language institute. The same technique could be used in other settings, for example, public schools, private schools and universities.

Fourth, other nationalities can be examined in a new research. Finally, it would be useful to investigate the relationship between vocabulary and lexis notebooks and students' motivation and retention.

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