



ON THE EFFECT OF USING CUBIC BOXES ON VOCABULARY ACQUISITION OF EFL YOUNG LEARNERS

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Abstract:

Vocabulary acquisition has long been a major concern among EFL instructors teaching young learners. Among all the techniques proposed for vocabulary retention and enhancement among young learners, using cubic boxes can play a pivotal role in developing and activating young learners to acquire elementary vocabularies more effectively. It was proven in this study that cooperative vocabulary activities among those young learners applying cubic boxes outweighs the ones who try to acquire new words via traditional pen-and-paper techniques. Thus, using cubic boxes possesses a major function in vocabulary enhancement and retention of young learners of English. Moreover, vocabulary learning based on the adaptation of the cubic boxes is highly cooperative and leads to more dynamic learning rather than individual vocabulary learning in language classrooms.

Keywords: cooperative vocabulary activity, cubic boxes, vocabulary enhancement, young learners

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1. Introduction

1.1 Three common approaches to vocabulary acquisition

With reference to Coady (1997) three distinct approaches to vocabulary acquisition have been proposed so far, known as incidental learning, explicit instruction, and independent strategy development. The second of these namely explicit instruction, based on Hunt and Beglar (2002), involves *“diagnosing the words learners need to know, presenting words for the first time, elaborating word knowledge, and developing fluency with known words”* (p. 258). Focusing upon the second merit of explicit instruction way of acquiring vocabulary items leads us to *“intentional learning through instruction which significantly contributes to vocabulary development”* especially among beginners (Nation, 1990; Pribakht & Wesche, 1996; Zimmerman, 1997, p.259). Explicit instruction is vital for beginners who have problems dealing with reading texts due to their lexical limitation. Some methods have been proposed to tackle the issue including translation which plays a *“necessary role in L2 learning but can hinder learners’ progress if it is used to the exclusion of L2-based techniques”* (Hunt & Beglar, 2002, p. 258). Another effective method could be using vocabulary lists which facilitate learning *“word-pair translations”* (Nation, 1990, p.259). Also, additional information can be developed within the lists.

1.2 Inadequacy of the so-called explicit instruction techniques for young learners

However, considering the above methods for explicit vocabulary instruction indicates the fact that neither of these could probably be appropriate for beginning young learners who are still at the initial stages of vocabulary learning. In regard with translation techniques, *“weaker students were less able to transfer knowledge learned from translation into an L2 context”* Prince (1996), which warrants the inappropriacy of translation for young learners as a sub-category of weaker learners. Prince (1996) maintains that knowing translations of L2 words does not *“guarantee that they will be successfully accessed for use in an L2 context”* (p.448). This is due to the fact that knowing a word has to do more than knowing its translated equivalent or synonyms. Nation (1994) *“identifies various aspects of word knowledge including knowing about typical associations”* among which using images or audiovisual instruments can be the ones to establish the mentioned associations. An example of such instruments can be colorful cubic boxes consisting of alphabetical letters on each of their spheres accompanied by employing images, a combination that leads learners especially young learners to associate words with both the creativity and effort they put into manifesting them on the cubic boxes and the images provided in the class so that they could remember and use the taught words more efficiently.

Thus, the current paper tried to investigate whether using colorful cubic boxes along with visual images enhances vocabulary retention and use of the young learners. Moreover, it was seen whether the applied technique could lead to productive as well as receptive language knowledge among young learners.

1.3 Research question

Does using cubic boxes in vocabulary instruction enhance vocabulary acquisition among EFL young learners?

2. Literature Review

2.1 Vocabulary as a multi-dimensional entity

Vocabulary is more complex than knowledge of words and word meanings in both oral and print language and it is related to their reading comprehension and academic success (Baumann, Kame'enui, & Ash, 2003). Conventionally, when we talk about knowing a word, we mean knowing its definition (Cook, 2001: 60-61). However, knowing a word by sight and sound and knowing a word's definition are not the same as knowing how to use the word correctly, as well as being able to use that word in speech and writing, and understanding it when it is heard or seen in various contexts (Miller & Gildea, 1987). Nagy and Scott (2000) identified several dimensions that describe the complexity of what it means to know a word. First, word knowledge is incremental, which involves many encounters with both spoken and written words in varying contexts (Nagy, Anderson & Herman, 1987). Second, word knowledge is multidimensional, because many words have multiple meanings and serve different functions in different contexts. Third, word knowledge is interrelated in that knowledge of one word connects to knowledge of other words. Nation (1990: 31) proposes the following list of the different kinds of knowledge that a student must master in order to know a word: a) the meaning(s) of the word, b) the written form of the word, c) the spoken form of the word, d) the grammatical behaviour of the word, e) the collocations of the word, f) the register of the word, g) the associations of the word, and h) the frequency of the word.

2.2 Vocabulary learning strategies

Research on vocabulary instruction (Baumann, Kame'enui, & Ash, 2003; Ellis, 1994) indicated that children learn most of their vocabulary indirectly by engaging daily in oral language, listening to adults read to them, and reading extensively. Moreover, vocabulary could be taught directly; this can be done by introducing specific words before reading, providing opportunities for active engagement with new words, and repeating exposure to the vocabulary in many contexts. Vocabulary development involves children's coming to understand unfamiliar words and being able to use them appropriately. It also involves teachers' helping them to model how to use a variety of strategies.

Vocabulary learning strategies are a subcategory of language learning strategies and constitute knowledge about what students do to find out the meaning of new words, retain them in long-term memory, recall them when needed in comprehension, and use them in language production (Ruutemets, 2005). They are classified into a) strategies for understanding the meaning of words, such as making deductions from the word-form, linking to cognates, guessing from the context and using dictionary, and

b) strategies for acquiring words, such as repeating the word over and over again, organising words in the mind, linking to background knowledge.

Schmitt (1997), developing Oxford's (1990) taxonomy for vocabulary learning strategies, goes a step further dividing vocabulary learning into two main phases: 'discovering new word meanings' and 'consolidating new word forms and meanings'. During these phases, students apply different strategies: Cognitive, which are the strategies which accomplish the process of using or converting the language material. Social, which develop interaction either amongst students or teacher and students. Memory, that is recalling the meaning word based on its decoding and connection with the student's background knowledge. They can be enriched gradually by the students themselves, depending on their individual preferences and learning style. Metacognitive are the strategies which help students to monitor and evaluate their process of learning and to use consciously certain techniques that improve performance in the target language.

Metacognitive and cognitive strategy use is a main 'key' for students to become more independent and responsible for their own learning; therefore, learners should be encouraged to individualize their strategy use, which may vary based on educational, linguistic or cultural background and learning style (Jones, 1998; Yamato, 2000). Moreover, Nation (1990) suggested that teaching strategies for handling unknown words, which included guessing through context, memorization and analyzing the word morphologically, is better than teaching the words.

3. Methodology

The current study employed a combination of both qualitative and quantitative methods where 50 EFL young learners who were between 9 and 12 years old and studying at three different language schools in Mashhad were selected to participate in a three-month course which focused on teaching vocabulary to young learners through using colorful cubic boxes as part of the classroom activity.

The learners attended the sessions three days a week and were divided into an experimental and a control group, each consisting of an equal number of 25 learners. Two competent teachers, having an experience of 15 years of teaching to young learners, were chosen to conduct the activities of the two groups.

The whole course lasted for thirty-six sessions and "First Friend" series were used as the teaching materials.

3.1 Procedures

Those within the experimental and control groups spent one hour and thirty minutes per session learning the different words included within every unit. Those with the experimental group were taught the words using the pictures of the materials units as well as the ones designed and included in power slides by the teacher. Then, the learners were asked to repeat the words after the teacher while looking at the pictures at the same time in order to be able to establish the relationship between the pictures and

their accompanied words. The last 30 minutes of every classroom was dedicated to assigning learners into intended groups to practice the covered words through finding them on the colorful cubic boxes, and the groups who could come up with the words sooner than others were rewarded by the teachers.

However, the learners in the control group received the same instruction and were taught words through accompanying them with their related images as well as repeating and saying words while looking at their related pictures. Nevertheless, no time was allocated to practicing the covered words by using the cubic boxes in groups so that the effects of using them upon young learners' vocabulary retention and understanding as well as their speaking skills could be analyzed.

A post-test was given from the learners in both groups where they had to match the pictures with their related pictures at the end of the course. The test included 30 pictures which were to be matched with their related words out of 35 (5 items were extra). One point per item was considered and the final score was calculated out of thirty. Finally, the average score was computed for each group and compared through the SPSS software to see which group had made more progress over the other in order to evaluate the effects of using cubic boxes on the learners' vocabulary retention and learning.

4. Results and discussions

In order to analyze the gathered data, test of normality and reliability of the test were measured. The following tables show these prerequisites for parametric analysis:

Table 1: Reliability of the Test

Number of Items	Cronbach's Alpha
30	.83

The test included 30 items and the reliability measured through running Cronbach's alpha was .83 which is an acceptable index for reliability.

Table 2: Test of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.197	50	.087	.928	50	.075
Posttest	.151	50	.072	.953	50	.046

As seen in table 2, K-S index for both pretest and posttest were more than .05 thus the data are normal. Since two prerequisites for parametric data analysis were met, two independent sample tests were run to measure the effect of teaching vocabulary through using colorful cubes.

Table 3: Group Statistics for Pretest

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Experimental	25	18.72	1.30	.26
	Control	25	18.68	1.14	.22

As seen in Table 3, the performances of both groups were close to each other (M=18.72, 18.68) and students in the control group (SD=1.14) were more homogeneous than students in the experimental group (SD=1.30).

Table 4: Independent Sample Test for Pretest

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Pretest	Equal variances assumed	.337	.564	.115	48	.909
	Equal variances not assumed			.115	47.172	.909

In order to check whether the difference between the performance of students in experimental group is significantly different from those in the control group, an independent sample test was run. As seen in Table 4, since p value is higher than the significance level (.909) it can be concluded that the groups had no significant difference at the beginning of the study regarding their vocabulary knowledge. So the researchers could start the treatment sessions to measure the possible effect of instruction on students' performance in the experimental group.

Table 5: Group Statistics for Posttest

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Experimental	25	23.48	2.123	.42
	Control	25	19.96	1.51	.30

Table 5 demonstrates that the number of the participants in experimental and control groups and their mean scores (N=25; M=23.48, 19.96, respectively) as well as their standard deviations (2.12, 1.51).

Table 6: Independent Sample Test for Posttest

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Posttest	Equal variances assumed	5.27	.026	6.74	48	.000
	Equal variances not assumed			6.74	43.37	.000

As Table 6 shows, since p value is zero (.000<.05), it is concluded that the instruction, using cubic boxes for acquiring vocabulary in the experimental group had a significant effect on their performance in the posttest in comparison to the performance of students in the control group.

5. Conclusion

Explicit instruction as one of the main approaches towards vocabulary learning can be achieved via different techniques such as extensive reading and translation. However, young learners' lack of sufficient familiarity with L1 and L2 words and structures paves the way for more tangible and easily-achieving techniques including image-based vocabulary instruction and using colorful cubic boxes. Thus, words can be maintained and acquired for a longer period of time by young learners.

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