

Comparing the Role of Traditional and Incidental Vocabulary Teaching on Developing EFL Students' Vocabulary by Means of Interactive White Boards

SirousIzadpanah¹, Jafar Asadi²

¹(Corresponding Author), Assistant professor, English Language Department, Islamic AZAD University, Zanjan branch, Zanjan Iran

²MA Student at TEF, English Language Department, Islamic AZAD University, Zanjan branch, Zanjan Iran

JafarAsadi2015@gmail.com Tel: 00989123411483

Abstract: *This study compared the traditional technique of teaching vocabulary with that of incidental implicit procedure using interactive white board and the use of elaboration technique. A pre-test, treatment, post-test design was employed. There were 48 Iranian pre-university students in two intact classes. A t-test was run on the results to see if there was any difference in the gain of vocabulary. The results revealed that the class in which the inter active white board and the elaborated texts were utilized had a much better performance than the traditional group.*

Key words: Incidental vocabulary teaching, Interactive white board, L1 equivalent, Elaboration

1. Introduction

The building blocks of language are, metaphorically speaking, vocabulary items in it. Traditionally the impact of vocabulary has been both emphasized and deemphasized as in the case in Grammar Translation Teaching (GTM) of language where vocabulary and grammar rules were the purpose of language teaching and in Audio Lingual classes where vocabulary was downgraded in favor of language structures. That is, the number of vocabulary words was minimized as far as possible as Audio Lingual classes just to provide learners with more time to practice grammatical patterns. In recent years the direct teaching of linguistic element in isolation is, however, less favorable. Vocabulary is no exception. Many experts are now in favor of incidental learning of these bits and elements of the language. Incidental learning according to Bill Vanpatten (2010) refers to picking up aspects of language as a by-product when a persons' attention is not on those aspects per se. He believes incidental learning is said to be at the heart of vocabulary learning (p,93) when for example, a reader's primary attention is on extracting meaning from a passage. Van Patten is of the idea that as a new word is encountered, the reader may deduce it from context; thus, the learning of that word is a by-product of reading. For him incidental learning contrasts with intentional learning in which a person purposely sets out to learn something. Intentional vocabulary learning might include, for example, studying the dictionary or thesaurus; where the person's intend is to learn new words, not to read for meaning. All in all, most of language learners have intuitively recognized the importance of vocabulary in their language learning processes (Nation, 2001; Wang, et al. 2014). How learners of ESL or EFL can acquire new vocabulary items effectively has been studied following various theoretical and empirical frameworks of language acquisition. One of the major debates in vocabulary learning is whether vocabulary should be deliberately taught using traditional explicit instruction (mostly giving the mother-tongue equivalent) or this can best be achieved by contextualizing new vocabularies in their uses and teaching them to the students accordingly.

Research so far has generally supported the idea that vocabulary is better learned incidentally and by encountering them in different contexts for both first and second language learners. After reviewing 144 studies, Krashen (1989) concluded that incidental vocabulary learning gives better results than intentional one. Huckin and Coady(1999)also concluded that vocabulary learning predominantly occurs incidentally through reading. This is exactly the idea that Hulstijn (2001) believes to be *The Default Argument* i.e., it is widely held that little vocabulary is acquired in an intentional fashion, through activities aimed at deliberately committing lexical information into memory and keeping that information readily accessible. Some other studies, however, have shown the superiority of intentional and explicit learning. For example, Lotto and De Groot (1998)brought about some shocking results for modern method advocates saying that translation learning conditions resulted in better recall performance than the picture conditions. Many second or foreign language vocabulary researchers are concerned that natural or incidental vocabulary acquisition is simply not efficient enough to produce the desired rates of learning. Natural context is not an especially rich source of information about word meanings. According to Nagy and Scott (2000), free reading is the least effective way to reach the goals if there are particular words a student wants to learn. Nation (1990) suggested that a second language learner needs to know approximately 2000 high frequency words to understand about 85% of most texts. He argues that direct instruction of those words allowed students to learn the high frequency words that they needed to understand texts. With the advent of computer and the field not long ago called 'Computer Assisted Language Learning' (henceforth, CALL), there has been a new opportunity to reinterpret so far established literature on vocabulary learning or maybe to contribute to some of the earlier debates which could not lead to clear consensus (for eg. Yoshii, 2014; Zhang, 2013). Among the new horizons that CALL has opened up is different interpretation of the word 'context'. By using multimodality, hyperlink and some other facilities, there are ample opportunities to contextualize the words differently and even

in a way that a few decades ago no one could dream of. The major issue here is whether technologically contextualized teaching of vocabulary can contribute to its 'better and more efficient learning or not. Due to vital importance of vocabulary in language learning, if technology can offer some efficient ways to learning this aspect of language, it can influence day to day practice of language teaching/learning. Hunt and Beglar (2005) regard vocabulary as the heart of second language comprehension and use. It seems that vocabulary teaching that was a neglected subject before 1980s has found its place in second and foreign language acquisition studies. Today, there is a general consensus on the importance of the role of vocabulary acquisition in language learning (Bogaards and Laufer, 2004; Coady and Huckin, 1997; Meara, 2002; Read, 2000; Zhang, 2013). The research on vocabulary has increased so drastically that about a decade ago Nation (2001) claimed that no one could stand on the top of all trends in vocabulary acquisition studies. However, the central role of vocabulary has not yet received the attention it deserves in second language teaching practices. There can be several reasons for being interested and studying the most effective ways of teaching vocabulary. First, it can contribute to enriching our perception and conception of our classroom activities as language teachers (Kumaravadivelu, 2006). Second, word-meaning studies of all sorts can have a considerable role in defining the underlying factors for mutual understanding of participants in communicative acts and this understanding can, in turn, contribute to a more universal understanding among people of the world with different linguistic cultural and ethnical backgrounds. Third, enhancing learners' vocabulary is conducive for the learners in defining syntactic properties of a lexical entry (Koeing and Davis, 2006). Fourth, the findings of the study can be beneficial for language teachers, since prior to any teaching practice teachers need to know the nature of what they are trying to teach and the nature of the processes involved in the actual teaching practices. Fifth, curriculum designers can also use the findings in planning the textbooks and setting objective for the courses and finally it is the learners themselves who benefit by gaining a better knowledge of vocabulary. The findings of the study also can have implications for teaching and testing vocabulary. The general purpose of this study, therefore, is to empirically investigate whether it is possible to present vocabulary in a way that will help learners gain the meaning of target words better and more importantly, help them enhance vocabulary acquisition through the use of a variety of text-related tasks and activities using interactive whiteboards. Generally speaking, the aim of the researcher is to know whether using computer technology can better engage the learners in the activities that will pave the way for them to learn vocabulary more effectively.

This study will try to compare two ways of doing vocabulary instruction; the traditional explicit one which has so far been with us (and most probably will continue to be) and an innovative one which tries to open new windows to contextualization of our vocabulary teaching endeavors and effective teaching of it. Since technology is improving in almost daily bases, it is indispensable to interpret any claim made based on the technology of that very particular day in which the claim is made. Accordingly, the researcher used

the interactive white board technology and the elaborated input. The elaborated input in that the meaning of the target words and expressions were given was employed (see the design section of bellow.) to see if using this technique together with the aid of computerized white board are beneficial to help EFL students develop a satisfactory command of target English lexical items.

2. Research Questions

The aim of this study was to answer the following research questions.

1. What is the influence of using traditional technique of giving the L1 equivalents of the target words on vocabulary achievement of the pre-university students?
2. What is the influence of using interactive white boards on vocabulary achievement of the pre-university students utilizing high lighting and elaboration techniques?

3. Method

3.1 Participants

The participants of the study were 48 pre-university students in two intact classes, namely, classes A and B. There were 25 students in class A and 23 students in class B. All were male students. They had four credit hours of English per week as it is the case in Iranian context of teaching English. Class B was equipped with interactive white boards but in class A the instructor used only the text book. The researcher was the instructor of both groups.

3.2 Instruments

The tools used for instruction were the students' course books and interactive white boards. Power point slides were used to present the texts in which the target words were elaborated. This was done in class B. In class A, however, the traditional way of teaching vocabulary was in order. Persian equivalents of the target words were given as a way of introducing the new words. In addition, a pre- test, and a post- test were applied to compare the pre and post treatment performance of the participant students. The tests were adapted from a nationwide standard text book, namely GAJ. The sample tests given in the book are standard as they are under the scrutiny of many teachers and institution stuffs all around the country. The test questions were in the form of multiple choices and fill in the blanks.

3.3 Data Analysis and Procedure

The present investigation is an example of a quasi-experimental research as the classes were not originally designed for the purpose of the present research. They were intact high school classes. A pre-test, treatment, post-test design was utilized to develop the present inquiry. That is to say, a pre-test on the target words was given to the two classes in question to see if they are indeed comparable in terms of their vocabulary power. After the researcher made sure that they were, the treatment was given to them as follows. For the experimental group A the texts in which the target words were embedded were given using the students' text books. After reading the text, the Persian meaning of the

new words was given to the class. For the experimental group B, however the researcher who was also the instructor of both classes employed a different procedure. He gave a chance to the students in class B to experience the visual presentation of the reading text. But this time the instructor used the elaboration and the bold procedures in that the new words were not only highlighted but also given definitions, synonyms, examples and the like so the students may both notice and get the meaning of the new words in the text presented to them. This was done so the students might not resort to the Persian translation of the text or looking up the Persian equivalents of the target words. To facilitate the flow of teaching the interactive white board technology and the power point slides of the texts in which the target words were embedded were used. This was done with the first five texts in the text book. A post -test was given to both groups to see if any significant change in students' word power was the case. The test was given to both classes immediately when the instruction and implementing the two different treatments were ended. It is worth mentioning here that, in both classes the words were contextualized at first, but it was only in class B that the words remained that way. In class A; however, the words were de- contextualized to let the students study them out of the text. In order to analyze the data obtained from the pre and post test, a t-test was run on the results to see if there was any statistically significant difference between the performance of the participants on pre and post tests.

4. Definition of the Key Terms

Explicit traditional teaching: It refers to teaching vocabulary by giving their mother tongue equivalent.

Technologically contextualized teaching: It refers to teaching vocabulary in its context by using computer multimedia possibility.

Vocabulary achievement: It refers to the state in which learners are able to answer researcher-made vocabulary tests

Elaborated input

The base line texts were lexically elaborated for the students in elaborated input group (Class B) . The researcher used the following three sub techniques to modify the target lexical items in the baseline text.

- a) Employing an explicit elaboration device (e.g., *which means/ is or or*) plus the synonym after the target word
- b) Providing a synonym after the target forms with a comma in between; or
- c) Offering the synonym in the brackets after the target words

5. Results and Discussion

The present study is an example of a quasi experimental type of study as there were two intact classes selected for the study. Both group were experimental groups each receiving a special treatment and there was no control group. A pre-test on vocabulary was given to both participant groups to see if they were actually comparable in terms of their vocabulary knowledge. The results obtained from the pre-test are as revealed in the following table.

Table 1: The results obtained from the t-test run on the pre-test

	Mean	N	SD	Std. Error of Mean
Group A	8.12	25	2.06	.41
Group B	7.52	23	2.06	.39

Table one shows the descriptive statistic results for the pre-test given to the participants before treatment. As it is indicated there is a slight difference between the means obtained from the pre-test on the part of the two participant groups. For experimental group A the mean was 8.12 and that of group B was 7.52. The SD was 2.06. The slight difference of .60 between the means of the performance of the two groups is statistically not significant. Therefore the two groups were indeed comparable.

After making sure that the two groups were homogeneous, the researcher provided the two experimental groups with two different treatments. Group A was treated by giving them the Persian translation of the target words. For the participant students in group B, however, a different procedure was employed. That is to say, the texts in which the target words were contextualized were elaborated in that both the text and the target words were made understandable for the participant pupils. The texts then were visually presented to the class by means of the interactive white board technology and power point slides. The following is an example of an elaborated sample text.

Exercising is an *excellent* or **very good** way to feel happy, *whether* (if) you are exercising on *your own* (alone) or with a group.... That is because when you exercise, your body can *release* or **make endorphins (material that produces happiness)**

After receiving the treatment for 8 fifty minute class sessions a post-test on the target words was given to both classes. In order to make sure of the reliability of the test the researcher adapted the tests (both pre and post) from a standardized source, namely, GAJ. The logic to select this as a source of the tests was that the text book is used nationwide in Iran so it is under the scrutiny of many experienced teachers all around the country and this makes the book a dependable standard source for sample vocabulary tests. Table two gives the result of the post-test given to the participants immediately after the treatment.

Table 2: The results obtained from the t-test run on the post-test

	Mean	N	SD	Std -Error of the Mean
Group A	9.92	25	1.95	.39
Group B	10.60	23	2.18	.45

As it is shown in the above table the two groups had a better performance on the post-test in comparison with that of the pre-test. That is, the means of the two experimental groups of A and B on the post -test were 9.92 and 10.60 respectively indicating that although both groups performed better on the post test than on the pre-test, the participants students in group B(the class where the instructor used the

interactive white board and the elaboration technique to teach the texts and the target words) had a much better performance after receiving the treatment. The mean of the participants in group B on pre-test was 7.52 (See table one.) and that for group A was 8.12. But the mean score for both groups were 10.60 and 9.92 respectively. This means that although the mean score of the students in group B was slightly lower than that of class A in the pre-test, it was greater on the post-test. This lends support to hypothesize that most probably the use of interactive white board and the elaboration technique had a positive influence on the performance of the participants in group B. The results of the present study are in line with a study conducted by Xiaohui(2010). In that investigation he utilized the elaboration and the traditional technique of giving L1 or Chinese equivalent of the target forms. He came to the conclusion that the elaboration group had a much better performance on the post-test. Based on the results gained from the present study, it can be hypothesized that lexically elaborated input seems facilitate incidental English vocabulary development. The second probable reason for the better gain in vocabulary by the participants in group B was that the researcher employed the interactive white board for the experimental group B. Put it another way, this study validates the positive effects of using the interactive white board and the elaboration technique to teach vocabulary incidentally. To sum it up it can be said that as it has been widely accepted input provides linguistic data that a developing system needs to actualize acquisition. To make input more efficient, many different techniques have been utilized to enhance the target linguistic forms to make them more salient so the learners may notice them to acquire them. Elaboration has recently been introduced as a way of input enhancement. The idea is held by many experts in the field of SLA. The findings of the present study are in line with some other currently carried out in the field in that it is hypothesized that input elaboration retains difficult vocabulary items and complex syntactic structures beyond readers' acquired language proficiency, but it offers the of the both or either (Xiaohui, 2010, p. 92) . It attempts to increase text comprehensibility by way of providing definitions of difficult vocabulary items, paraphrasing sentences containing complex syntactic structures, and enriching semantic details. In the same line Larsen-Freeman and Long (1991) note that elaborated adjustments have the advantage of supplying learners with access to linguistic items they haven't yet to acquire. Similarly, when Urano (2005) investigated the effects of lexical simplification and elaboration on sentence comprehension and incidental vocabulary acquisition, the results confirmed that lexical elaboration is more favorable than lexical simplification in both L2 reading and vocabulary acquisition. More recently Kong (2007) conducted a study leading to the results that both simplified and elaborated input promotes the participants' reading comprehension with no significant difference between the two. What makes the present study different from all other related ones done to date is the application of technology, namely the interactive white board, to help giving a better visualized form of the text in which the target forms were contextualized. By this the author is of the idea that utilizing the interactive white board technology better paves the way to employ a mixture

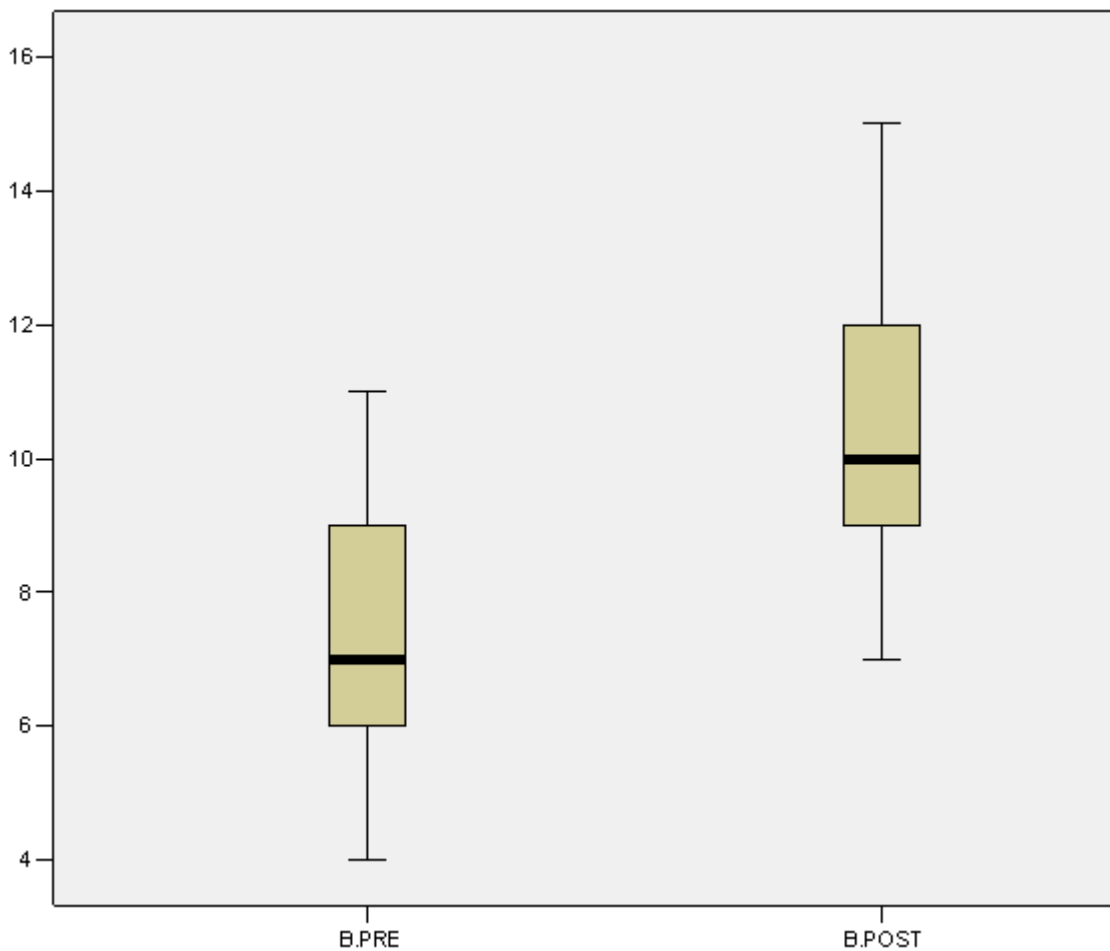
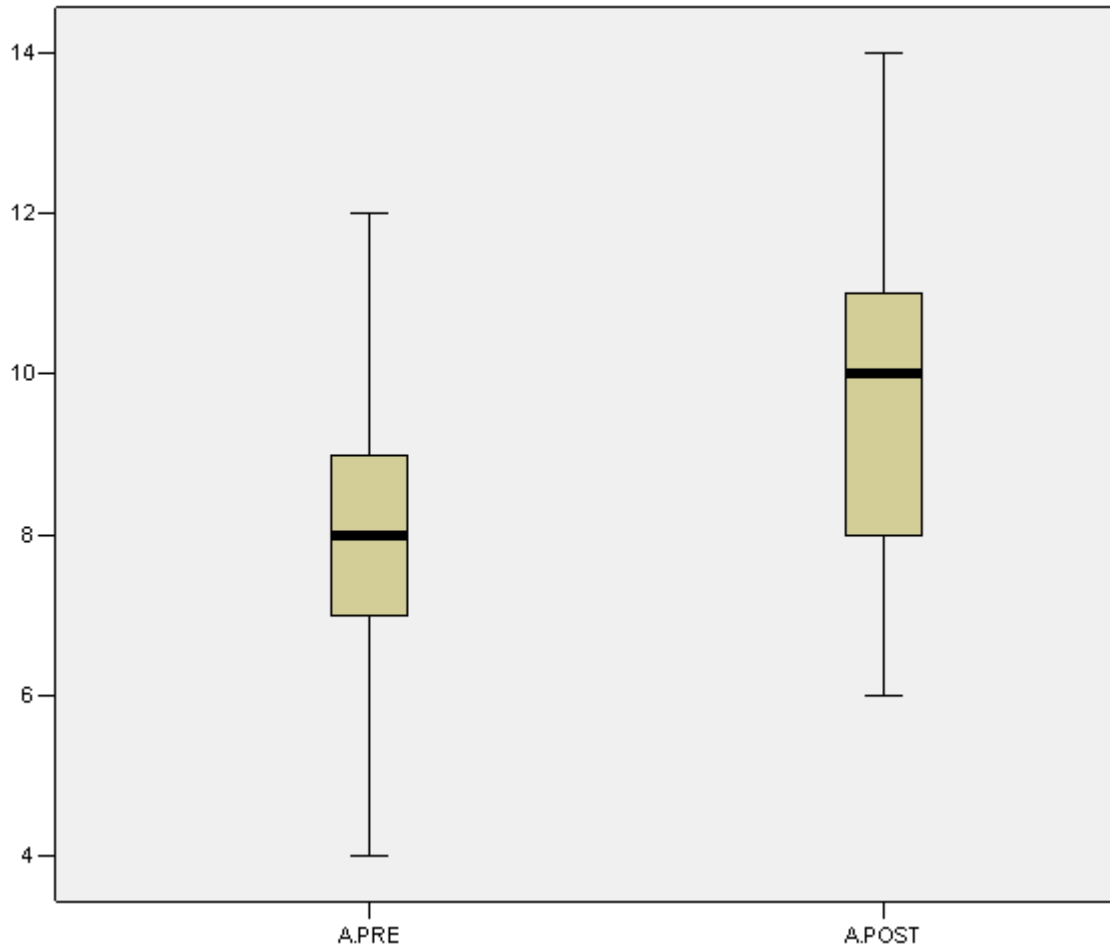
of technology and the elaboration technique in teaching vocabulary incidentally.

6. Conclusion

Based on the results obtained from the present study, the two research questions in the present investigation were answered in the affirmative. But it should be noted that although both groups experienced a gain in vocabulary, the experimental group receiving elaboration where the interactive white board was used to represent the text in which the target vocabulary items had been contextualized had a more satisfactory performance from the participants taught the target words by the traditional way of receiving L1 equivalents of the new words. The findings of the present study have the implication that the use of technology, where it is available, could help both the instructors and learners of English to teach and learn English for real purposes much more efficiently. Of course, the present study like all other studies has its own limitation. For example, it would be better to give the participants a delayed post-test to see if the gain in performance in the immediate post test was stable over time. Another pitfall of the present study was that all the participants were male. A third shortcoming was that a control group was lacking. So a more thorough study taking the above mentioned drawbacks in consideration is suggested.

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Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	A.PRE	8,1200	25	2,06801	,41360
	A.POST	9,9200	25	1,95619	,39124
Pair 2	B.PRE	7,5217	23	2,06419	,43041
	B.POST	10,6087	23	2,18963	,45657