

# Comparing the Effects of L1 and L2 Definition on Incidental Vocabulary Learning through Listening to Stories

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**Abstract**—Vocabulary is an essential component of language proficiency which provides the basis for learners' performance in other skills. This study investigated the effect of three kinds of definition conditions, that is L1, L2, and L1+L2 on incidental vocabulary knowledge of EFL learners. To this aim, three experimental and one control groups took part in the current study so as to examine the effectiveness of definitions with 96 target words through listening. The participants were 74 fourth-grade high school students. Eight stories with each with 12 target words (total 96 words) were given to the learners. Participants in each group listened to eight short stories under one of the three mentioned conditions for experimental groups, with no definition offered for control group. They all answered vocabulary list, eight immediate post-tests and eight delayed posttests of vocabulary. The data were analyzed using *t*-tests and one-way ANOVA for both immediate and delayed post-tests. The results indicated that definition groups significantly outperformed the other group in terms of vocabulary acquisition on both immediate and delayed retention of target words. However, the findings showed a significant loss from the immediate to the delayed post-tests. These findings are discussed and implications are offered for foreign language syllabus designers and instructors.

**Index Terms**—incidental vocabulary learning, L1 and L2 definition, listening comprehension, story- telling, glossing

## I. INTRODUCTION

Vocabulary learning has been extensively researched in recent years since the fact that vocabulary plays a pivotal role in the communication and academic lives of foreign language learners is irrefutable (Al-Dersi, 2013, Belisle, 1997) and there is no doubt that learning vocabulary is a key factor for language mastery (Schmitt, 2008). Even some researchers such as Gass (1999) equate learning a second language with its vocabulary learning. Moreover, vocabulary learning is supposed to be a multidimensional phenomenon which includes the integration of different kinds of knowledge along with gaining various levels of ability to make use of that knowledge in communication (Paribakht and Wesche, 1999).

Certainly, improving a rich vocabulary is a first priority for both L1 and L2 learners without which their other language skills suffer significantly. That is why Wilkins (1972) many years ago argued that “While without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (p. 111).

Because of the critical role of vocabulary in learning a foreign language, learners should draw on a variety of strategies to learn vocabulary. Hunt and Beglar (1998) believe that there are three approaches to improving vocabulary learning: incidental learning, explicit instruction, and independent strategy development. Among these three approaches, incidental vocabulary learning which includes extensive reading and listening is considered as a significant part of learning vocabulary.

Most of the papers in the domain of incidental vocabulary learning (Wesche & Paribakht, 1999) have considered incidental learning as something that is learned without specific focus of attention in a classroom context. According to Paribakht and Wesche (1999), incidental vocabulary learning refers to the fact that learners concentrate on meaning of listening and reading contexts instead of focusing on intentional vocabulary learning without the learner's attempt to learn the words through methods such as guessing from context, learning through definitions, etc.

Even though there have been a growing number of studies concerning learning vocabulary through reading (Pulido, 2007), learning vocabulary through listening, is also a promising source of vocabulary acquisition. For example, some researchers have shown that students learn vocabulary through listening to stories or lectures (Brett, Rothlein & Hurley, 1996; Elley, 1989).

Generally speaking, L2 listening has received relatively little research attention (Vandergrift, 2007), and this is true about incidental vocabulary acquisition as well. Thus, fewer studies have been carried out in the context of listening as compared with reading. Some early vocabulary studies have included listening, but they explored how auditory stimuli can reinforce acquisition from reading (e.g. Kelly, 1992), rather than acquisition from listening only. Recently, a few vocabulary studies have measured learning from listening directly. Their findings suggest that listening leads to even smaller gains than reading does (Brown et al., 2008; Vidal, 2011; as cited in (Van Zeeland & Schmitt, 2013).

Another common way of initially providing the meaning of lexical items is to explain them in target language. It has been argued that short, direct, unambiguous, and simple definitions (glosses) work best (Ellis, 1995; Nation, 2001). In any case, learners' interest in the aural input and the comprehensibility of that input are vital for vocabulary acquisition to occur according to these researchers. This study aimed at investigating the effectiveness of different definition types, that is, L1 definition, L2 definition, and L1+ L2 definition on incidental vocabulary learning of Iranian high school students through listening to stories.

## II. LITERATURE REVIEW

### A. *Incidental and Intentional Learning in L2 Vocabulary Literature*

Vocabulary is learned either incidentally or intentionally. While incidental learning can be applied to both abstract and factual declarative knowledge, intentional learning is only applicable to factual knowledge (Hulstijn, 2003).

Ellis (1999) describes the distinction between incidental and intentional learning as follows:

The distinction between incidental and intentional learning is based on the distinction between focal and peripheral attention. Intentional learning requires focal attention to be placed deliberately on the linguistic code (i.e., on form or form-meaning connections), while incidental learning requires focal attention to be placed on meaning (i.e., message content) but allows peripheral attention to be directed at form (p.45).

Many vocabularies are learned incidentally through extensive reading and listening. therefore, encouraging learners to read and listen extensively can provide them with great opportunities and ample input the is necessary for vocabulary learning. According to Huckin and Coady (1999) except for the first few thousand most common words, L2 vocabulary learning predominantly happens through extensive reading with guessing of the unknown words. This process is incidental learning of vocabulary for the acquisition of new words and is the by-product of reading. Gass (1999) points out that words are more likely to be learned incidentally if (a) there are recognized cognates between the native and the target languages, (b) there is important L2 exposure, or (c) other L2 related words are known.

Brown, Waring, and Donkaewbua (2008) compared vocabulary learning from reading and listening and found that the difference between reading and listening was that the former lead to significantly more vocabulary learning. Even though both Vidal (2011) and Brown et al. (2008) held a comparative analysis of learning through spoken and written input, the primary concern is the actual uptake from listening. This is important in the fact that the two tests provided by Brown et al. led to very different scores; this demonstrates that incidental vocabulary learning is more complex than could be revealed by these tests only.

The lack of vocabulary knowledge assessment in listening studies is surprising. Therefore, this study on the comparison of different gloss types aims at measuring the effect of providing definitions in listening to stories which is not investigated so far.

### B. *Meanings and Importance of Glosses*

The concept of glossing has been largely studied by researchers in recent years. Traditionally, a gloss is a definition or meaning for L2 learners to improve reading comprehension. Nation (1983) defined glosses as short definitions. Segler (2001) pointed to them as translations or brief explanations of difficult or technical texts (e.g. unusual words) and categorized glosses into textual glosses, pictorial (visual) and aural glosses and various combinations (as cited in Jalali & Neiriz, 2012).

Roby (1991) expressed that "glosses supply what is perceived to be deficient in a reader's procedural or declarative knowledge "(p.183). Lomicka (1998) defines glosses as short definitions or explanations that are often supplied to facilitate reading and comprehension processes for L2 learners. Researchers (e.g., Yoshii, 2006; Nation, 2002) pointed to glossing as one of the most effective tools for increasing noticing that increase vocabulary learning among ESL/EFL learners.

Glossing is the easiest way for perceiving the meanings of words as they appear in context, since it does not even demand the effort of searching and then choosing the suitable meaning out of several possible ones, which is required by dictionary look-up. Researchers generally agree that glosses facilitate reading comprehension and short-term vocabulary retention (Kost et al., 1999).

### C. *Reasons for Using Glosses*

Glosses can have at least four advantages for learning. First, readers can use glosses to understand new words more accurately by preventing incorrect guessing. Guessing meaning from context can be risky and difficult because of readers' lack of language or reading strategies (e.g., Bensoussan and Laufer, 1984; Hulstijn, 1992; Kruse, 1979; Nation, 2001; Stein, 1993). Second, glossing can reduce interruption while reading is in process. Since glossing supplies

definitions for low frequency words, L2 readers do not have to constantly look them up (Nation, 1990; Nation, 2001). Third, glosses assist readers in making a bridge between previous knowledge or experience and new information in the text. In other words, interactions among gloss, reader, and text develop comprehension and retention of the content of the text. Besides these points, glosses in key words can aid readers recall their background knowledge and connect it to the text (Stewart and Cross, 1993). Fourth, glosses can make students less dependent on their teachers, allowing for greater autonomy. Since not all students have problems with the same words, they can look up just the words they do not know (Jacobs, 1994; Nation, 1990). Some studies have indicated that students prefer to have glosses in their L2 language reading materials (e.g., Jacobs, Dufon and Fong, 1994). In each case, the use of vocabulary glosses in L2 reading materials is a common practice (Holley and King, 1971; Jacobs, et al., 1994; as cited in Hee Ko, 2005).

#### *D. L1 versus. L2 Gloss*

There is a controversy over the effectiveness of L1 and L2 glosses and studies have produced conflicting results with some reporting no difference while others indicating the advantage of one gloss type over the other type (Chen, 2002; Jacob et al., 1994; Miyasako, 2002). In an early study Jacobs et al. (1994) did a study on 85 English-speaking participants who were studying Spanish as a second language compared to compare L1 with L2 glosses. The results of the immediate test demonstrated that either L1 or L2 were better than no gloss; however, no significant difference was found between L1 and L2 glosses. In a similar study, Chen (2002) examined L1 and L2 glosses with 85 college freshmen in Taiwan who were studying English as a second language in three groups - (1) L1 (Chinese) gloss; (2) L2 (English) gloss; and (3) No gloss. The findings proved that the L2 group outperformed the no gloss group, and that the difference between L1 and L2 glosses was not significant (as cited in Fahimipour & Hashemian, 2013).

Miyasako (2002)'s study found the advantage of one gloss type over the other which is contrary to previous studies. Comparing the effectiveness of L1 and L2 glosses, Miyasako concluded that the L2 gloss groups outperformed the L1 gloss groups. In addition, L2 glosses appeared to be more effective for higher-proficiency level learners, whereas L1 glosses were more effective for lower proficiency learners (as cited in Yoshii, 2006).

As the results of the comparisons between L1 and L2 are inconclusive, there is a need for more studies comparing the effectiveness of L1 and L2 especially in listening skill which is an under-researched area which is going to be addressed in the present study.

#### *E. Listening Comprehension and Short Stories*

Although listening was almost ignored in language learning and teaching for a long time, recently it has achieved its active and communicative value. Due to the developments in technology, these days the teachers and the researchers make a profit from several listening instruments in the classroom to hone learners' listening comprehension ability. Nonetheless, students in each level may have problems listening to audio programs. In order to enhance this skill, teachers have looked for different techniques and strategies to teach and receive requested results.

According to Ghanimi, Arjmandi, and Rahimy (2014), a very demanding listening task is audio story task, designed as supplementary material to language text books that can eliminate the students' listening problem. However, listening has remained a tough skill to teach students because setting listening task is considered time-consuming and boring. It seems that the first step in overcoming the barriers would be understanding the language spoken in a context. If the learners do not listen attentively, there will be some difficulties in understanding. Larsen-Freeman (2000, p. 148) states that, "being able to figure out the speaker's or writer's intentions is part of being communicatively competent."

Generally speaking, the focal issue of the current research project is to determine which definition condition is more effective in aiding vocabulary retention. This research will not only analyze different forms of the definitions, but also give a more detailed description of the effect of definitions on incidental vocabulary acquisition. Additionally, this study investigates to introduce audio story that can be enjoyable material for the learners into EFL classes and also can maximize the students' exposure to suitable listening program. Therefore, to clarify what is in an EFL high school context, the present research aimed to answer the following questions:

1. Do learners in experimental groups (vocabulary definition) perform better than learners in control group (no definition) on vocabulary posttests?
2. Does providing L1, L2, and L1 + L2 definition affect immediate vocabulary retention of learners?
3. Does providing L1, L2, and L1+L2 definition affect long term retention of learners?

### III. METHOD

#### *A. Participants*

This study was conducted on seventy four (N=74) female students studying at Ansarifard high school in Sabzevar, Iran. All the students of the survey were of roughly the same age (17-18) and were studying English as a compulsory subject during guidance and high school education. All of them were native speakers of Persian and English was a foreign language for them. The class met twice a week for 90 minutes and was a requirement for graduation. They had passed grade eleven and they had the same English learning background. Hence, it was assumed that the participants formed a suitable sample for the intended experiment. This was also determined by their classwork and homework. They were randomly assigned to three experimental and one control group. Each group got on a definition condition

based on four definition types: L1 definition, L2 definition, L1 + L2 definition, and no definition. The treatment took 12 sessions.

### *B. Research Design*

The design of this study was an experimental one with vocabulary definition being the independent variable and vocabulary learning the dependent variable. During the experiment, the students listened to eight short stories during one month in the first semester of 2014 under one of the four conditions: L1 definition (Persian language), L2 definition (English language), L1 + L2 definition (Persian and English language), and no definition. The participants in three definition groups were considered as the experimental groups and the participants in no gloss group were presumed to be control group in this study. After listening to the stories, the participants were asked to answer the immediate post-tests. Then the delayed post tests were conducted after two weeks one by one. In this study different types of definitions (L1, L2, L1 + L2, and no definition) were identified as the independent variable. The dependent variable included participants' scores on immediate and delayed vocabulary posttests and the design of the study was experimental with both post- tests. The tests measured learners' receptive and productive vocabulary knowledge.

### *C. Materials and Instruments*

To conduct the present study, four instruments were employed to collect the data. The instruments were the same for all the participants. They consisted of a vocabulary list used before treatment, immediate post- tests (Production & Recognition), delayed post-tests (Production & Recognition), and eight short stories from graded readers at appropriate difficulty levels that are explained below.

### *D. Vocabulary Lists*

To ensure the learners are not aware of the target words prior to the treatment, a vocabulary list was administered to the learners in order to measure their knowledge of the target words. The test contained 100 words selected from eight short stories. The participants were instructed to put a check mark by any words they knew and provide a short written explanation in L1. Consequently, 96 words out of 100 words were selected. To assess students' learning of the target words throughout the study, recognition and production tests were employed.

### *E. Immediate Post Tests*

Participants received two vocabulary posttests: one immediately after the treatment and the other two weeks later. This study used a two-week span following similar studies (Chun & Plass, 1996; Kost et al., 1999; Yoshii & Flaitz, 2002). The purpose of using immediate post-test was to measure the participants' vocabulary knowledge. The immediate post- test required the students to write down the meanings of the given English words in Persian, and make sentences with the given target words. Eight immediate post tests were administered to the participants at various stages of the experiment. Each post- test was composed of two parts: a recognition and a production test in the form of definition supply with making sentences. The format of the definition supply test was in the way that participants were asked to mark the words they remembered and provide their meanings in L1 (Persian). The recognition test consisted of the target words with four multiple choice answers for each item. The participants should select the most suitable definition of the given word through four choices written in L2 (English). Each test included a total of 12 target words, and the students received one point for each correct answer, making the maximum score of 12 points.

### *F. Delayed Post Tests*

The same eight immediate post- tests were administered to the students as delayed post- tests two weeks after the first immediate post- test one by one. They were applied after listening and answering the immediate tests at the beginning of the session. In other words, after two weeks students should answer to two tests: a new test immediately after listening to the story and the delayed post- test of the previous tests. The purpose of using delayed post- test was to measure the participants' vocabulary retention and long term memory. Immediate post-test, on the other hand, aimed to measure the learners' target word knowledge incidentally acquired during the listening activities.

### *G. Short Stories*

Eight short stories with 96 head words (n=96) were selected and prepared for the participants in the incidental vocabulary learning condition in graded reader form. Stories were chosen according to the proficiency level of all the participants. They were similar in length and difficulty. Although the stories' name was familiar for the participants, measures were taken to make sure that learners had not already read the stories in new version and with new vocabulary in order to minimize the effect of old vocabulary. In each story, definition of about 20-25 (new and distracter) words were given. Short stories were adapted into four different forms: a short story with no definition; a short story with L1 definition (definitions or synonyms in Persian); a short story with L2 definition (definitions or synonyms in English); and a short story with L1 + L2 definition (definitions or synonyms in English and Persian). A multiple-choice listening test consisting of eight items (four items with choices in Persian and four items with English choices) were given to the students after listening to the stories.

### *H. Data Collection Procedure*

Four classes of the same grade were chosen to participate in the study. One of the classes was randomly adopted as the control group and the other classes as the experimental groups. One hundred target vocabulary items from eight short stories from graded readers were considered and given to the students as vocabulary list. Among these, 96 words were covered in the stories. In attempting to ensure the target words were unfamiliar, only items that had not appeared in any of the previous course books were chosen. The students were told about vocabulary list and also about the immediate post-tests in advance but, the delayed post tests were not mentioned and participants took them unexpectedly. This was done to create conditions for incidental vocabulary learning. The students were required to listen to eight short stories during one month. The stories were told live by the teacher to the students. Before treatment, a vocabulary list was given to the students and then they were told about listening to eight short stories and answering the vocabulary tests. They took the first announced immediate post -test one week later the vocabulary list and delayed post tests were administered two weeks after the first immediate post-test.

### I. Data Analysis Procedure

To test the hypotheses of the study, some descriptive and inferential data analysis procedures were performed. The data in this study was analyzed using the Statistical Package for the Social Sciences (SPSS, version 21). On the basis of the aforementioned research questions, the data was analyzed using one-way ANOVA for test of vocabulary in immediate and delayed post-test for research questions 3 and 4. In order to understand if three aforementioned definition conditions were more effective than no definition condition, that is to answer research questions 1, two separate independent samples t-tests were used. For all the analysis, the alpha level was .05. In all treatment sessions the effect of two strategies of learning vocabulary was measured: 1) immediately after treatment and 2) two weeks later so as to determine the long term retention effect. In this study, descriptive statistics were used to determine the mean and standard deviation of each group on posttests (immediate and delayed).

## IV. RESULTS

### A. The First Research Question

The first question of the current study concerned investigating whether providing L1, L2, and L1+ L2 definition (experimental groups) in comparison with no definition (control group) affect learners' incidental vocabulary learning differently. As displayed in Table 1, the mean of the experimental group ( $M= 63.31$ ,  $SD= 13.81$ ) and that of the control group ( $M= 5.50$ ,  $SD=4.560$ ) showed that the means were quite different. In fact, the experimental group outperformed the control group on the immediate posttest of vocabulary retention.

TABLE 1.  
DESCRIPTIVE STATISTICS FOR THE EXPERIMENTAL AND CONTROL GROUP ON IMMEDIATE POSTTEST

	Control experimental	N	Mean	Std. Deviation	Std. Error Mean
immediate	1	54	63.31	13.081	1.780
	2	20	5.50	4.560	1.020

Note: 1= experimental, 2= control

However, to see if this difference is statistically significant an independent sample *t-test* is used and the results are displayed in Table 4.2.

TABLE 2.  
INDEPENDENT-SAMPLES T-TEST FOR THE EXPERIMENTAL AND CONTROL GROUPS ON IMMEDIATE POST 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
immediate	Equal variances assumed	7.835	.007	19.264	72	.000	57.815	3.001	51.832	63.798
	Equal variances not assumed			28.182	71.894	.000	57.815	2.051	53.725	61.904

The descriptive statistics of mean and standard deviation of each group was calculated and equal variances was not assumed was reported. Results of the independent samples t-test ( $t(72) = 28.182$ ,  $P < .05$ ) indicated that there was a significant difference between the experimental and control groups' mean scores on immediate post-test of vocabulary retention.

TABLE 3  
DESCRIPTIVE STATISTICS FOR EXPERIMENTAL AND CONTROL GROUPS ON THE DELAYED POSTTEST

	Control experimental	N	Mean	Std. Deviation	Std. Error Mean
delayed	1	54	44.93	17.615	2.397
	2	20	4.20	3.302	.738

Note: 1= experimental, 2= control

As it can be seen in the descriptive statistic of Table 3 the mean score of the experimental group was computed ( $M=44.93, SD=17.615$ ) while that of control group was ( $M= 4.20, SD= 3.302$ ). The mean score of the experimental group was higher than that of the control group. It means that the experimental group on the delayed posttest of vocabulary retention outscored the immediate post- test like what was observed in Table 2. In order to make sure the difference between control and experimental groups (the two mean scores) is statistically meaningful, an independent samples *t*-test should be consulted.

TABLE 4.  
INDEPENDENT-SAMPLES T-TEST FOR THE EXPERIMENTAL AND CONTROL GROUPS ON THE DELAYED POSTTEST

		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
delayed	Equal variances assumed	26.193	.000	10.230	72	.000	40.726	3.981	32.790	48.662
	Equal variances not assumed			16.237	61.979	.000	40.726	2.508	35.712	45.740

The results of the independent *t*-test shown in Table 4 revealed that there was a significant difference between experimental and control groups' mean scores on delayed posttest of vocabulary retention thus, equal variances was not assumed was reported. The experimental group after receiving treatment outperformed the control group on the immediate and delayed posttests of vocabulary, ( $t(72) = 16.237, p<.05$ ). Thus the first null hypothesis as providing L1, L2, and L1 + L2 definition (experimental group) and no definition (control group) does not affect learners' vocabulary learning differently was rejected.

**B. The Second Research Question**

The second research question was set as whether providing L1, L2 and L1 + L2 definition affect immediate vocabulary retention of learners. The descriptive statistics for the three groups on the immediate post-test are presented in Table 5.

TABLE 5  
DESCRIPTIVE STATISTICS OF L1, L2, AND L1 + L2 FOR IMMEDIATE POST-TEST

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1.00	18	63.4444	11.35120	2.67550	57.7996	69.0893	46.00	84.00
2.00	18	64.3889	9.54333	2.24938	59.6431	69.1347	52.00	87.00
3.00	18	62.1111	17.62982	4.15539	53.3440	70.8782	4.00	89.00
Total	54	63.3148	13.08149	1.78017	59.7443	66.8854	4.00	89.00

Note: 1=L1 and L2, 2=L2, and 3=L1

The results of Table 5 show that there was no significant difference among the means of three groups on immediate posttest. The mean for L1, L2, and L1 + L2 groups were 63.4444, 64.3889, and 62.1111 respectively. Although there was not important difference between groups, L2 group performed better than L1 and L2, and L1 group. To check the homogeneity of variances, the significance value is checked and since it is .50 which is greater than (0.05), the assumption of homogeneity of variances is not violated

This result demonstrates that groups were assumed to be equivalent. To describe the statistical significance of the three groups' mean, One- way ANOVA was applied. ANOVA was employed to calculate the amount of variance between and within the groups. The results of the statistical operations are analyzed in Table 7.

TABLE 6  
ONE-WAY ANOVA FOR IMMEDIATE POST-TEST

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	47.148	2	23.574	.133	.876
Within Groups	9022.500	51	176.912		
Total	9069.648	53			

Based on Table 6, since the probability level for rejecting the null hypothesis (.876) is larger than  $P> 0.05$ , therefore the second null hypothesis stating L1, L2 and L1 + L2 definitions do not have any significant effect on immediate vocabulary retention is not rejected. The result of ANOVA shows that there was no significant difference between the scores of the students in immediate posttest for three groups.

**C. The Third Research Question**

The third research question concerned investigating whether providing L1, L2, and L1 + L2 definition affect long term vocabulary retention of learners. To clarify the effect of this condition descriptive statistics of the delayed posttest, which was held two weeks after immediate, are presented in Table 7.

TABLE 7  
DESCRIPTIVE STATISTICS FOR DELAYED POST-TEST

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1.00	18	42.1111	18.10066	4.26637	33.1099	51.1124	4.00	72.00
2.00	18	51.4444	15.51933	3.65794	43.7269	59.1620	30.00	88.00
3.00	18	41.2222	18.19359	4.28827	32.1748	50.2697	3.00	71.00
Total	54	44.9259	17.61523	2.39713	40.1179	49.7340	3.00	88.00

Note:1=L1 and L2, 2= L2, 3= L1

According to Table 7, the mean in the L2 group differs from two other groups, and also the mean for L1+ L2 group shows difference to some degree from L1 group. The mean for groups were 42.11, 51.44, and 41.22 respectively. Notably the mean of the L1 group is lower than L2 and L1 + L2 means in both immediate and delayed posttests. The results of the delayed posttest do not show significant difference in the mean of scores in three groups. After the time interval, the means in two groups (L1 and L1+ L2) decreased a bit, but L2 group had the highest mean in the delayed post- test. To check the homogeneity of variances, the Levene's test results were obtained which did not indicate a significant value ( $p=.588$ ) verifying the homogeneity of variances on the post-test.

To check whether there is any significant difference among the groups, ANOVA was run. As it is demonstrated in Table 8, there is no significant difference at the  $p < .05$  level in posttest scores for the three groups:  $F(2, 51) = 1.925$ ,  $p = .156$ . This result demonstrates that groups were of equal condition. To describe the statistical significance of the three groups' mean, one way ANOVA was applied, the results of the statistical operations are analyzed in Table 10.

TABLE 8  
ONE WAY ANOVA FOR DELAYED POSTTEST

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1154.370	2	577.185	1.925	.156
Within Groups	15291.333	51	299.830		
Total	16445.704	53			

According to the results of ANOVA reported in Table 8, there was no significant difference between the scores of the delayed posttest in three groups. Thus, in response to the third research question on the effect of L1, L2, and L1 and L2 on the students' performance on vocabulary delayed posttest, we can conclude that the significance value is greater than the critical value of 0.05 indicating that the test fails to reject the null hypothesis. In other words, no statistically significant differences between means of the three groups were found and the variances in all three groups were equal.

## V. DISCUSSION

The present study compared the effect of different types of vocabulary definition on vocabulary learning of high school learners through listening to short stories. The results of the study proved the superiority of the participant's performance in definition groups (L1, L2 and L1+ L2) to the control group.

The reason for this finding can be that definitions provide the learners with extra information that they may need for understanding. Thus, language learning is facilitated when definitions are combined with stories in a listening context. Moreover, stories add variety to the classrooms and get learners engaged in learning leading to better achievement. It is also a novel idea for the students to hear the meaning of words, not necessarily seeing the meaning, which is highly motivating for learners.

Furthermore, the better performance of the students in experimental group is in line with Noticing Hypothesis (Schmidt, 1995) which states it is necessary to pay intentional attention to the L2 input in order to learn language successfully. Therefore, this noticing may have increased the chance for learners to codify definition words in their memory (Laufer & Hulstijn, 2001; Schmidt, 1993).

A second purpose of the study was to compare the effect of L1, L2, and L1 +L2 definition on the learners' immediate and delayed vocabulary retention. Findings suggested no meaningful difference between different definition types giving support to the studies conducted by Jacobs et al. (1994) and Yoshii (2006).

## VI. CONCLUSION AND IMPLICATIONS

The findings of this vocabulary teaching research project supported the idea that providing learners with definition will improve their chance of vocabulary learning during listening activities. That is the provision of definitions for the unknown words seemed to be a good technique in helping students learn unknown words incidentally.

It was also found that the majority of participants preferred to listen to stories with definition and they preferred L2 definition to L1 + L2 and L1 definitions, respectively. These findings can have some implications for language teachers and material developers. The finding that the difference between definition groups and control group was significant suggests that teachers do need to provide learners with vocabulary definitions in one way or another. Second language instructors should provide L2 learners with both oral and written definitions in texts. Furthermore, the provision of definition types reduces the burden of looking up words in dictionary and prevents L2 learners from choosing of false meanings for unknown words in a particular context.

This study investigated the effect of audio definition on EFL learners' incidental vocabulary learning across short stories, other researchers can conduct study across other genres. The present study used eight audio stories, future studies with more short stories may result in more generalizable results. Additionally, researchers can examine the effects of definition in a longer time using a larger sample with different proficiency levels in other contexts.

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