1-21-2019

# Which Strategy Promotes Retention? Intentional Vocabulary Learning, Incidental Vocabulary Learning, or a Mixture of Both? 

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## Recommended Citation

Karami, A., \& Bowles, F. A. (2019). Which Strategy Promotes Retention? Intentional Vocabulary Learning, Incidental Vocabulary Learning, or a Mixture of Both?. Australian Journal of Teacher Education, 44(9). http://dx.doi.org/10.14221/ajte.2019v44.n9.2

# Which Strategy Promotes Retention? Intentional Vocabulary Learning, Incidental Vocabulary Learning, Or A Mixture Of Both? 

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#### Abstract

The purpose of this study was to investigate whether intentional vocabulary learning, incidental vocabulary learning, or a combination of the two best prepares students for learning and retaining vocabulary in English as foreign language learning (EFL) classrooms. Three experimental groups and three control groups were selected. All groups were given a pre-test and an immediate post-test after the instruction. A delayed post-test was administered to the experimental groups after the immediate post-test. The three experimental groups received the intervention-intentional, incidental, or a combination-while the three control groups received no vocabulary learning instruction. The results show that the mixed instructed group outperformed the other two groups and retained the vocabulary longer than the other groups. Incidental vocabulary learning placed second and intentional vocabulary learning placed third.


Keywords: Intentional vocabulary learning, incidental vocabulary learning, mixed vocabulary instruction, vocabulary retention

## Introduction

Vocabulary learning is deemed to be of great importance and one of the most elusive aspects of learning a new language. The vicissitudes of vocabulary learning have led teachers and researchers to investigate and search for the best method for students to acquire vocabulary. Schmitt (2008, p. 329) stated that "a large vocabulary is necessary to function in English: 80009000 -word families for reading, and perhaps as many as 5000-7000 families for oral discourse." Laufer $(2005,1998)$ pointed out that the number of received words for non-native speakers of a language are more than the number of produced words in a language, an important factor for making a distinction between native and non-native speakers. With these two factors in mind, the need for a large vocabulary and the discrepancy between received knowledge and production, the acquisition of sufficient vocabulary seems to be one of the most important tasks of language learners (Lewis, 2000) with the result that insufficient vocabulary knowledge impedes comprehensible communication among speakers.

Vocabulary is of paramount importance for communication. Schmitt (2008) highlighted this importance and stated that teachers and researchers delve into methods and approaches to ameliorate the vocabulary learning process for language learners in learning a new language.

Teachers and researchers can improve this vocabulary learning situation through investigating and implementing the most important effective strategies and factors for vocabulary learning. This will help ease the language learning process for language learners and implement the most effective language teaching strategies in the classroom (Karami, 2016). "In fact, the lexicon may be the most important language component for learners" (Gass, Behney, \& Plonsky, 2013, p. 164). Wyra and Lawson (2018, p. 605) highlighted the importance of vocabulary for foreign language learners in communication and stated that one of the goals of foreign language learners is to "achieve communicative competence" to be able to communicate inside and outside of the classroom. In other words, vocabulary is integral to helping to speakers of a language to understand each other and make themselves understood.

Researchers perceive the development of a language mostly as a dependent factor upon the development of vocabulary in that language (Harmon, Wood, \& Keser, 2009; Linse, 2005). In fact, researchers believe that a dearth of sufficient vocabulary knowledge creates difficulties for learners during the learning process (Nation, 1990). Nation (2001) also argued the importance of vocabulary in language production and elucidated that vocabulary and language have bidirectional effects in such a way that knowledge in vocabulary can result in the use of language and the use of language can result in the knowledge of vocabulary.

This important role of vocabulary extends to all four skills including listening, reading, speaking, writing, and on subskills of a language such as grammar and cultural competence as well. Although vocabulary is vital for successful language learning and communication, researchers are not in general agreement about the best way to teach the vocabulary of a new language. In fact, previous studies mostly have focused on the effects of intentional and incidental vocabulary learning strategy, but no study has investigated the combination of intentional and incidental vocabulary learning strategies on English as a Foreign Language (EFL) learners' vocabulary learning and retention. To bridge this gap, this study aimed at investigating the combination of intentional and incidental vocabulary learning strategies to see their effects on vocabulary learning enhancement and extended retention. To do so, the researchers applied three different treatments to three different experimental groups to find out which treatment was most effective on performance and retention of the vocabulary.

## Literature Review

Meara (1980, p. 221) highlighted the neglected role of vocabulary in language teaching and learning before the 1980s and stated that vocabulary is an aspect of second language learning that "has received short shrifts from applied linguistics, and has been very largely neglected by recent developments in research." Alemi and Tayebi (2011) also mentioned this insufficient attention to vocabulary and highlighted that research on vocabulary learning has not received enough attention. In fact, researchers presumed that vocabulary could be achieved solely through listening and communication with no need for instruction (Moir \& Nation, 2008). This assumption led Krashen (1989) to introduce the concept of Comprehensible Input, which states that vocabulary in second language acquisition is acquired incidentally through comprehensible input and not explicit instruction with the focus on meaning rather than form, while Ellis (1994) argued that meaning is not the only factor in vocabulary acquisition; instruction must be included, too.

Vocabulary acquisition takes many forms. For example, some learners attempt to grasp the meaning of words through memorization and translation by changing them into their native language which can be problematic (Barcroft, 2009) because the translation of jokes, idioms, and proverbs may be inappropriate in the translator's native culture or may not make sense in the translator's native language. This nonequivalence may cause confusion in learning a new language in general and may hinder the vocabulary learning process in specific. This leads to the argument that tasks with the focus on intentional learning must be deemphasized but not ignored and should be replaced with incidental learning of vocabulary through context (Oxford \& Crookall, 1990; Krashen, 1989; Crow, 1986). The Natural Approach and the Communicative Language Teaching method follow this idea and emphasize the importance of vocabulary learning through context with no explicit instruction (Choo, Lin, \& Pandian, 2012).

Intentional and incidental vocabulary learning strategies are two common and highly controversial vocabulary teaching and learning strategies that have been investigated by researchers for many years, but it seems that they still need further investigation.

## Intentional Vocabulary Learning

According to Schmidt's (1990, p. 721) noticing hypothesis, there is a difference between input and intake in language learning in such a way that input needs to be changed to intake which is noticed and "consciously registered" to be said that language learning has taken place. In other words, noticing second language features and paying attention to them play an important role in learning a new language. This hypothesis provided the foundation for the idea of intentional vocabulary learning.

Researchers have mentioned a variety of definitions of intentional vocabulary learning so far. Some researchers such as Hulstijn (2003) defined it as a way of learning in which the learner is informed and knows what he/she is going to learn. In other words, the tasks are completed based on the target vocabulary. Intentional vocabulary learning was also defined as the ways in which direct attention is paid to vocabulary learning itself (Hulstijn, 2001).

Extensive research on the effectiveness of intentional vocabulary learning has been carried out. For example, Elgort and Nation (2010) reported that techniques and approaches used in intentional vocabulary learning such as writing word-lists, having notebooks for vocabulary, and using word cards are beneficial in vocabulary acquisition. Schmitt (2008) highlighted the essence of explicit attention in learning some features of vocabulary and stated that the intentional vocabulary learning strategy can provide this opportunity for those learners who do not notice these features while they focus on the meaning and the message. To sum up, "Intentional learning of vocabulary speeds up the learners' process of lexical development due to focused repetition or memorization strategies, which can be completed individually in a short period of time" (Hung, 2015, p.107).

## Incidental Vocabulary Learning

Vygotsky's sociocultural view (1978), which focuses upon interaction and collaboration, states that learning cannot take place without social interaction and collaboration. Incidental vocabulary learning, based upon this view, emphasizes the incidental acquisition of words within
meaningful contexts and purports that learners will be able to use words actively if they learn them incidentally. This meaningful context, which must be selected carefully because of the possibility of misinterpretation, will allow for longer retention of the words in the cognitive process (Webb, 2008). "It is a commonsense notion that the more a learner engages with a new word, the more likely they are to learn it" (Schmitt, 2008, p.338), so incidental vocabulary learning is the process in which there is no direct attention to the new words.

Vocabulary in the incidental vocabulary learning strategy can be learned simultaneously as another activity is taking place (Rieder, 2003). In other words, incidental vocabulary learning can be defined as the process of word acquisition in which there is no intention of learning the word. Hashemi Shahraki and Kassaian (2011) reported better acquisition of receptive and productive vocabulary through the interaction and the use of vocabulary in a productive form. Huckin and Coady (1999) referred to the advantages of incidental vocabulary learning:
a) Words can be identified and recognized through meaningful use and within context.
b) Learners can be involved in both reading and vocabulary acquisition at the same time.
c) Learners are able to select the material which they prefer.

## Intentional Vs. Incidental Vocabulary Learning

Both intentional and incidental vocabulary learning seem to play an important role in the acquisition of vocabulary, but the role of incidental learning has been deemphasized in such a way that it occurs only in the presence of intentional learning (Choo, Lin, \& Pandian, 2012). In other words, the results of various studies suggest that some language learners learn some features of vocabulary intentionally while other features are learned incidentally. For example, some aspects such as meaning and grammatical characteristics are learned best through explicit instruction, while some other aspects such as collocation and register are mastered through implicit instruction and various types of exposures embedded within context (Nation, 2001; Schmitt, 2007). Schmitt (2008, p. 352) highlighted the importance of both strategies and stated that "Perhaps the most effective way of improving incidental learning is by reinforcing it afterwards with intentional learning tasks."

The negative effects of overemphasized intentional vocabulary learning have been mentioned by Nation (2011), but this does not mean the strategy must be completely ignored. Neither intentional nor incidental vocabulary learning seems to be effective per se and one does not have priority over the other (Brown, Waring, \& Donkaewbua, 2008; Laufer, 2005; Read, 2004; Nation, 2001). A combination of both may make a perfect strategy although de Groot (2006) believes that there is no absolute way for learning vocabulary since it depends upon many factors. Schmitt (2008) concurs and believes that different approaches of vocabulary instruction must be applied in different stages.

A number of investigations have been carried out in order to find the efficacy or inefficacy of intentional and incidental vocabulary learning. For example, Barcroft (2009, p. 97) found that "intentional learning positively affected L2 word-form learning during reading as compared with instructing learners to read for meaning only." Ramachandran and Rahim (2004) reported the efficacy of L1 translation over providing the meanings in L2, and Laufer (2005) concluded that explicit vocabulary exercises increased performance better than incidental learning in both immediate posttests and delayed posttests. Elgort (2011) declared that intentional vocabulary learning outperforms incidental vocabulary learning since it does not require a natural setting. A study by Ahmed (2017) reported the efficacy of intentional learning
over incidental learning in terms of producing better retention. Some researchers continued and investigated different strategies, techniques, and approaches within intentional vocabulary learning. For example, Yamamoto (2014) showed the usefulness of having explicit word lists, repetition, and memorization of vocabulary.

Incidental vocabulary learning and its effects on vocabulary acquisition have also attracted a lot of attention among researchers along with the way incidental vocabulary learning occurs. For example, Hemmati and Binti Asmawi (2015, p.72) investigated the effectiveness of incidental vocabulary learning through reading and concluded that "the reading approach is an effective approach for vocabulary development." A number of studies have investigated a variety of strategies and techniques of incidental vocabulary learning which seem to have great influence on vocabulary learning. For example, Dabaghi and Rafiee (2012) and Hulstijn, Hollander, and Greidanus (1996) found some techniques and tasks such as marginal glosses and images as multimodal annotations to be effective. Based on the aforementioned literature on vocabulary learning, no study has investigated the efficacy of mixed instruction (intentional combined with incidental) on vocabulary learning and the effect of this instruction (mixed instruction) on the vocabulary retention of EFL learners.

## Method

Purpose of the Study
This study was conducted to investigate whether intentional vocabulary learning, incidental vocabulary learning, or a combination of both improves vocabulary learning and retention. Based on the literature review, the efficacy of both strategies, intentional or incidental, have been researched and discussed as individual methods, but no study has investigated the effectiveness of their combination on vocabulary learning and vocabulary retention in an EFL setting in comparison to each of the two ways of vocabulary learning discussed in the literature review.

This study aims to investigate whether intentional vocabulary learning, incidental vocabulary learning, or a combination of the two best prepares high school students for learning and retaining vocabulary in English as a Foreign Language classrooms.

## Participants

In order to conduct the study, seventy-eight from 100 Iranian EFL learners between the ages of 12 and 17 were identified as participants. These students were in the same level, Touchstone 2B, and had been exposed to the same background knowledge in English as a foreign language. Touchstone 2B is a book from a series of English language teaching books called Touchstone published by Cambridge University Press. Not only was the participants’ English background knowledge the same, but also their first and second languages (Azeri and Farsi) were the same.

## Homogeneity of the Participants

The homogeneity of the participants was established using four factors: their teachers, their final scores on their final exam, the Touchstone 2 Placement Test scores, and the
institution's placement test scores. All of these scores were calculated and students whose average scores were higher than 78 out of 100 were chosen as the participants of this study.

## Design

The 78 student participants included 48 girls and 30 boys. These 78 students were divided into six groups with eight girls and five boys in each group. Three groups of thirteen were randomly assigned to the control group and had no direct, indirect, or intentional vocabulary instruction; three groups of thirteen were randomly assigned to the experimental groups with specific instructions for each group: Group One Incidental; Group Two Intentional; and Group Three Mixed. Forty new words were selected from their book because four units of this book was covered per semester. The pre-test for all groups was administered 35 days after their final exam of the previous semester. An immediate post-test was administered after the eight-week instructional period, and a delayed post-test was administered 35 days after the immediate post-test.

Since the research design included a pre-test and a post-test with questions designed by the teachers, the researchers conducted a pilot study after the conclusion of the Touchstone 2A unit among 39 randomly selected participants to measure the internal consistency of the items using IBM SPSS Statistics 24 . The Cronbach's alpha was .837 , which is strong and shows the internal consistency of the items. Since there was no negative item-total correlation, no items were changed or removed for the study.

## Pre-Test

Three control groups and three experimental groups with thirteen students in each group took the pre-test. These pre-tests contained 40 words including different parts of speech such as nouns, adjectives, adverbs, and verbs from the Touchstone 2B textbook in different formats. Participants were asked to answer the questions and write their answers on the answer sheet. Control Group 1 and Experimental Group 1 (Intentional Vocabulary Learning Strategy) each received the same test and question format for Pre-, Post-, and Delayed tests. Control Group 2 and Experimental Group 2 (Incidental Vocabulary Learning Strategy) each received the same test and question format for Pre-, Post-, and Delayed tests. Control Group 3 and Experimental Group 3 (Mixed Vocabulary Learning Strategy) each received the same test and question format for Pre-, Post-, and Delayed tests.

In other words, the group with the intentional strategy along with its control group received its special format of questions, the group with the incidental strategy along with its control group received its special format of questions, and the group with the mixed strategy along with its control group received its special format of questions. Each group received one specific format of questions because the researchers were trying to track the progress of each group and the retention level of words based on the vocabulary teaching strategy implemented in that classroom. The questions had different formats but the same content. It means that all three formats of questions were trying to measure the same words, but in different formats.

The first control and experimental group received a pre-test with single words. Participants were asked to write the meaning in English or provide one synonym or one antonym or a translation of the word.

Please write the meaning of the words.
a) Junk food:
b) Stomachache:
c) Toothache:
d) Celebrate:
e) Wonderful:
f) Photographer:

Table 1: An Example of the Pre-Test Questions for Group
The second control and experimental group received a pre-test with words highlighted in conversations or a reading or in a meaningful text. Participants were asked to read carefully and write the meaning.

Please write the meaning of the words.
a) Alex doesn't eat healthy food, but he eats a lot of junk food. Junk food:
b) A: Why do you want to visit the dentist?

B: I have a toothache. Toothache:
c) A birthday is a very important day for people. Everybody likes to celebrate his/her birthday. People like cutting cakes and taking some photos. A photographer can take some wonderful photos.

Celebrate:
Photographer:
Wonderful:

Table 2: An Example of the Pre-Test Questions for Group 2
The third control and experimental group received a pre-test with both isolated words and words presented in conversation, reading, and meaningful text for writing the meaning of the intended vocabulary in the question. Some examples are presented in the table below.

Please write the meaning of the words.
a) Junk food:
b) A: Why do you want to visit the dentist? B: I have a toothache.

Toothache:
c) Wonderful:
d) A birthday is a very important day for people. Everybody likes

Celebrate: to celebrate his/her birthday.
e) Photographer:

Table 3: An Example of the Pre-Test Questions for Group 3

Every single question was valued at one point. In fact, every correct answer received 1 positive point, but there was no negative point for incorrect answers. The total score of the test was 40 . The average of the pre-test scores for each control and experimental group can be seen in the following graph.


Figure 1: Comparison scores on pre-test
The results show that the averages for both the control and experimental groups are the same for Groups 1 and 2 . Group 3 showed some difference with the control group average at 3.615 and the experimental group at 3.692 , which strengthens the study as it demonstrates the homogeneity of the participants.

## Intervention

Three experimental groups received eight sessions of training by the instructor who had nine years of experience in teaching English to speakers of other languages and by an M.A holder in TEFL. The other three groups (control groups) also received eight sessions of training but no instruction on vocabulary whether directly or indirectly. It means that the instructor did not provide any meaning of the words directly through translation, synonyms, antonyms, explanation, or indirectly through making examples or within meaningful conversation.

In the first experimental group, the teacher only presented synonyms, antonyms, translations, and English definitions for each English word, which are strategies for intentional vocabulary learning. In the second experimental group, the words were presented in meaningful conversations and texts or in a reading, and the intended words were taught within a conversation, a reading, and in meaningful texts, which are strategies for incidental vocabulary learning. The third experimental group received a mixture of both (translation, synonyms, antonyms, conversations, reading, and meaningful texts).

## Results

The teacher arranged to have all affecting factors under control: all classes were held in a $60-$ minute period and an equal number of students were assigned to each class. After eight sessions of instruction, the teacher handed out the immediate post-test, which replicated the words in the pre-test, but with changes in the order of questions and the format.


Figure 2: Comparison scores on post-test
The results of the immediate post-tests show that the three experimental groups had a significant increase in the average of their scores indicating the success of the three methods with a higher increase in the average of the third experimental group which used mixed instruction for vocabulary learning. The results also show that incidental vocabulary learning (Group 2) worked better than intentional vocabulary learning (Group 1) since the average of the scores is higher than the average of the scores in intentional vocabulary instruction. In order to see the spread of the immediate post-test scores, SPSS was run to create boxplots for data. Figure 3 shows the difference and distribution of immediate post-tests of control and experimental groups.


Figure 3: Boxplot with descriptive statistics
Figure 3 verifies the results above and shows considerable difference between participants of the study as well. Scores of the immediate post-test in the intentional instruction (Experimental Group 1), the incidental instruction (Control Group 2), and the mixed method (Control Group 3) are more spread-out than other groups. In fact, the data value range for each group is different from one another. For example, control group 1 has the smallest midspread among groups while control group 2 and 3 have the largest midspread, which is almost the same for both groups. It also shows that the median scores of the experimental groups are higher than the median scores of the control groups.

Since the purpose of the study was also to compare vocabulary retention in three different ways of vocabulary learning, a delayed post-test was distributed among participants after 35 days in order to see whether they could remember the words. Since the pre-tests had been taken 35 days after their final exam of the previous semester, the delayed post-tests were decided to be distributed 35 days after the instruction in order to compare the long-term retention of the words. Since the retention of the words must be examined based on the treatment, a delayed post-test was administered among the experimental groups to see which vocabulary instruction was successful and helped with the increased retention of the words.


Figure 4: Comparison scores on delayed post-test
The results of the delayed post-tests (Figure 4) show that there was not much difference between the average of the scores in the immediate post-test and delayed post-test in the experimental groups, but it must be mentioned that the average of the scores in the delayed posttest was lower than the average in the immediate post-test. This means that after treatment all three vocabulary learning methods impacted vocabulary retention, but the mixed instruction had the longest retention among others in the experimental group. It can be observed that there is not much difference between the average of the immediate and delayed post-test scores in mixed instruction which indicates its effect on vocabulary retention. The graph (Figure 4) also shows that the second most effective instruction is incidental vocabulary learning and the least effective one is intentional vocabulary learning.

Figure 4 also shows that the average score for delayed post-tests in the mixed method group is the highest and the average of the scores in incidental vocabulary learning is higher than the average of the scores in intentional vocabulary learning.


Figure 5: Boxplot of descriptive statistics for delayed post-test
The difference and distribution of the scores between immediate and delayed post-tests can be seen in the following figure. Median scores of post-tests of experimental groups, immediate and delayed, can also be identified. For example, the median scores of both immediate and delayed post-tests in the mixed instruction are higher than the median scores of immediate and delayed post-tests in other two strategies. The scores of the immediate post-test in the experimental group 1 is more spread-out than other groups.

Based on the results of this study, the group which received mixed instruction of both intentional and incidental vocabulary learning achieved the best results. This group also revealed scores indicating higher vocabulary retention than Groups 1 and 2, which is an indication of its effectiveness.

## Limitations of the Study

This study was conducted to investigate the most effective way for longitudinal vocabulary retention with a limited number of students who were 12 to 17 years old. Since the
number of participants could increase the generalizability of the results, future studies should be conducted with larger samples in both control and experimental groups.

A second limitation is the length of instruction for each group. Future studies could increase the time of treatment for each group to see whether better results could be achieved. For example, the study could be continued using the vocabulary teaching strategies for the class over a number of semesters; the findings might then open new horizons in vocabulary teaching and learning.

Another limitation was the age of the participants. This study focused on teenagers while other studies might consider adults and children to see whether mixed instruction provides better retention or not. Since vocabulary learning and retention are of paramount importance for adults, future studies could investigate the effect of mixed instruction on adults' vocabulary learning and retention.

The other important limitation of this study was controlling both groups outside of the classroom. It was not possible for the researchers to control the participants' accessibility to other language learning materials such as dictionaries, social media, and so on. In fact, it was not possible to see how much time each group spent on improving their vocabulary knowledge outside of the classroom. The participants of the control group could study more than the experimental group or vice versa.

This study did not put cognitive and metacognitive factors into consideration. Some other factors such as motivation, interest, attention, individual differences, and so on may have significant effects on vocabulary learning. For example, one strategy may boost the motivation of language learners while another strategy may demotivate them. Future studies need to put these factors into consideration.

## Implications of the Study for Teachers and Teacher Education

Since there are a huge number of words that every language learner needs to learn, failure to do so might demotivate or even cause them to abandon learning the new language (Karami, 2019). Therefore, vocabulary teaching can be a difficult task for language teachers and educators. Improving students’ vocabulary knowledge and adding to their pre-existing vocabulary knowledge can be a daunting task to language teachers and educators as well. A small portion of instructional hours is dedicated to vocabulary instruction in language classrooms despite the important role of vocabulary in language development (Biemiller, 2005; Durkin, 1979; Scott \& Nagy, 1997). In the past, vocabulary instruction was unplanned and unstructured because it was based on student-driven questions (Moore, n.d.). Teachers used to provide students with quick oral responses or to direct them to refer to a dictionary or other meaning sources (Nagy, 2005). Chung (2018, p. 499) highlighted this impromptu vocabulary instruction of teachers and stated that despite extensive research on vocabulary acquisition, "it remains unclear what teachers know and believe regarding L2 vocabulary acquisition beyond the commonplace conception that teaching and learning are interrelated."

One possible reason of this insufficient attention to vocabulary instruction lies in the fact that teachers are uncertain of the effectiveness of vocabulary teaching strategies and rely on their personal beliefs and perceptions. Chung (2018) believes that teachers will rely on their own beliefs if there are no clear guidelines for vocabulary instruction. Teachers need practical results to rely on because teaching vocabulary based on personal beliefs and feelings may lead to unsuccessful instruction. For example, in a study conducted by Tang and Nesi (2003), the
authors reported that some teachers focused on just teaching meaning and/or pronunciation and ignored other aspects of vocabulary.

The researchers recognize that vocabulary development is not a "one size fits all" methodology. Instructors must know their students, their interests, and their motivations for learning another language so that they can tailor their instruction to meet the multifaceted needs of their students. The awareness of learners for various learning strategies of second/foreign language can also assist them in more successful accomplishment of tasks (Anderson, 2005; Nagy \& Habók, 2018). This study provides evidence that mixing incidental with intentional vocabulary can be a successful vocabulary teaching instruction. A mixture of both strategies not only can be a response to different types of learning styles, it can also equip learners with adequate strategies to be more successful in learning vocabulary.

The researchers also acknowledge the role that teacher preparation programs play in preparing teacher candidates with the skills and time needed to effectively teach vocabulary. Carlisle, Kelcey, Rowan, \& Phelps (2011) point out that pre-service teachers are not always prepared to teach vocabulary using evidence-based best practices. Brownell, Sindelar, Kiely, \& Danielson (2010) attributes allocation of time in teacher preparation program to the fact that effective vocabulary strategies are included in teacher education curriculum especially as it relates to teaching exceptional children.

The present study provides teachers with a clear instruction by focusing on two strategies of vocabulary instruction and their combination and compares them with each other to see which strategy provides EFL learners with rich instruction of vocabulary. The results of this study emphasize the importance of both intentional and incidental vocabulary teaching strategies once more in such a way that it can help teachers to realize the importance of both strategies and their combination in teaching different aspects of vocabulary.

While researchers noted in the previous paragraphs are focused on teacher preparation instruction in general, Lucas and Villegas (2013) added their concern about the allocation of time in teacher preparation programs focused on teaching English Language Learners. Supporting the concern regarding preparation, Von Esch and Kavanagh (2017) focused their research on the lack of preparation to teach English learners for in-service teachers. Shoffner and de Oliveira (2017), recognizing the lack of preparation, suggest several key elements that teachers can use to promote literacy through linguistically responsive teaching such as sociolinguistic conscientiousness, linguistic diversity, advocacy for EL learners, language background of learners, and language demands of discourse in English Language Development classrooms.

Teachers need to realize that some words can be taught incidentally "without dedicating too much attention to them" (Karami, 2019, p. 61), some intentionally, and some using a combination of both incidental and intentional. The results of this study can also be used in teacher preparation programs to provide a clear picture of an effective and successful vocabulary teaching strategy in EFL settings. Furthermore, this study can help teachers realize that they should not limit themselves to one strategy or focus on just one aspect of vocabulary. The implementation of both intentional and incidental strategies will help both learners and teachers to focus on various aspects of vocabulary such as form, meaning, register, collocation, and so on.

Though the purpose of this investigation was to look at vocabulary development in particular, the researchers acknowledge that teacher preparation holds the key to designing effective instruction that meets the needs of the students and would encourage other researchers to delve into the link between preparation and implementation especially regarding vocabulary development.

## Conclusion

This study focused upon intentional, incidental, and a mixture of both to find the most effective method for teaching and retaining vocabulary in an additional language. In both the immediate post-test and the delayed post-test, the experimental group receiving the mixed method of using both intentional and incidental instruction demonstrated higher scores than the other two experimental groups.

The efficacy of vocabulary learning, whether intentional or incidental instruction, has been investigated and discussed in many articles. The results of either instructional method can differ based on the situations, learners, teachers, and materials. Restrepo Ramos (2015, p.158) reminds us that "Incidental learning of vocabulary is not completely understood in terms of how it actually occurs" because of a number of different factors such as "the amount of exposure, word guessing strategies, and the quality of the context that facilitates learners' lexical inference activities" that can play influencing roles when a learner is trying to do lexical inference.

A study by Ponniah (2011) showed that learners who were using a dictionary (intentional learning) were not able to use words in sentences while learners who had learned words incidentally and subconsciously through reading were able to use those words in sentences. Newton (2013, p.164) investigated "incidental vocabulary learning in classroom communication tasks" and put incidental vocabulary learning under question by reporting that "much of the improved recall of word meaning was for words that had not been negotiated." Newton (2013) stated that there must be a broader view and investigation over incidental vocabulary learning in general and strategies, techniques, and approaches in specific. Jahangiri and Abilipour (2014) found that the retention of the vocabulary by the implementation of collaboration depends upon the exercise type.

Since there is no agreement among researchers on the efficacy of intentional or incidental vocabulary learning, vocabulary acquisition must be investigated from a broader perspective. We suggest further studies comparing incidental, intentional, and mixed vocabulary instruction along with the continued investigations of other strategies and tasks such as extensive reading, learner's involvement, and collaboration in order to find the most convenient way for teachers to teach and for learners to learn.

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