



On the Impact of Determination and Compensation Strategies on Language Learners' Vocabulary Development

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The present investigation was an attempt to study the effect of using compensation and determination strategies on Iranian upper-intermediate EFL learners' vocabulary development. The question which the present study was trying to answer was: Do compensation and determination strategies have any statistically significant effects on Iranian upper-intermediate EFL learners' vocabulary development? To that end, QPT was administered to 110 female EFL learners learning English language at Shokouh Institute in Rasht, Iran. So 90 learners were selected for this study and they were divided into two experimental groups and one control group, each group contained 30 learners. Prior to the treatment, the participants were given a pretest to assess their initial knowledge of English vocabulary. The experimental groups received treatment. The researcher used compensation and determination strategies in ten sessions. However, in the control group, the new words were taught in traditional way. After ten sessions, a posttest was administered to all groups. One-way ANOVA was conducted to see if the treatment was effective or not. The results were computed and analyzed through SPSS and it was found that using compensation and determination strategies had a positive effect on the participants' vocabulary development.

Keywords: language learning strategies, vocabulary learning strategies, language teaching strategies, compensation strategy, determination strategy

INTRODUCTION

Vocabulary functions as a cornerstone of any language. Theorists and researchers in the field contend that lexical competence plays a principal role in second or foreign language learning (Bergman, 1992). According to McCarthy (2001) "vocabulary forms the biggest part of the meaning of any language, and vocabulary is the biggest problem

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for most learners. Regarding the importance of vocabulary, O'Malley & Chamot (1990) believe that vocabulary knowledge in second/foreign language learning is of paramount importance in as much as it is underpinned by schema-based approach to language learning, which deals with information processing. Thus, language learners can make use of their schemata, background knowledge resided in their long-term memory, to enhance their understanding and retrieval of new ideas by means of subsuming their newly-learned items to previously-existed ones.

In fact, it is relatively difficult to learn a language without words; even communication between human beings is based on words. Both teachers and students agree that acquisition of the vocabulary is a central factor in teaching a language (Thornbury, 2002). With the emergence of the concept of language learning strategies (LLS), scholars have attempted to link these strategies with language learning skills. So, each strategy enhances learning of vocabulary, pronunciation, etc. Vocabulary learning strategies enable individuals to take more control of their own learning and more responsibility, especially for their studies (Nation,2001). Thus, "strategies foster learner autonomy, independency, and self-direction" (Oxford ,1990).

Moreover, nowadays, there is a high tendency to learn English. Learners try to find the best way in learning a new language. There are so many ways, which are effective to each learner. As a result, learners should find the most simple and suitable method to learn a new vocabulary item. As a matter of fact, it is needed to find effective techniques of teaching and learning vocabularies. To overcome this difficulty, teachers, researchers and curriculum planners usually suggest a variety of techniques to be used for learning vocabulary.

Researches on vocabulary learning strategies (VLS) in EFL context have been searching since the last decade. The necessity for the development of intervention programs that boost vocabulary in in EFL context seems inevitable. The purpose of the present study is to examine the impact of determination and compensation strategies on Iranian upper-intermediate EFL learners' vocabulary development. According to Schmitt (1997) determination strategies are used "when faced with discovering a new word's meaning without recourse to another person's expertise" (p.205). Compensation strategy refers to language learners' attempting to utilize strategies to help them communicate in the target language successfully (Oxford, 1990).

This study will therefore address the following research question:

RQ: Do compensation and determination strategies have any statistically significant effect on Iranian upper-intermediate EFL learners' vocabulary development?

To answer the research question, the following null hypothesis was formulated:

Using compensation and determination strategies do not have significant effect on Iranian upper-intermediate EFL learners' vocabulary development.

LITERATURE REVIEW

Vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read and write (Richards & Renandya, 2002). Hence, a strong vocabulary will help EFL learners not only in reading comprehension but also in listening, writing, and speaking. Vocabulary learning is a complex and gradual process and different approaches may be appropriate at different points along the incremental learning process. The issue of how to teach vocabulary has attracted experts' attention and many books and articles have been published concerning various techniques in teaching vocabulary which help learners acquire words more easily and effectively. Vocabulary learning strategies offer various ways of how to work with new information in more effective way and can be divided into several categories.

In the early stages of VLS's studies, researchers tended to focus on using just one strategy. Not much research on clusters of VLS has been conducted. Moreover, VLS taxonomies still, to some extent, present an incomplete picture of the VLS in use (Zimmerman, 1997). Schmitt (1997) states: "The research which has been done on vocabulary learning strategies has tended to deal with individual or small numbers of strategies, with very few studies looking at the group as a whole. The current state of the area is typified by the lack of a comprehensive list or taxonomy of lexically-focused strategies."

Ahmed (1989) investigated the VLS used by three hundred Sudanese learners of English. Think-aloud, observation, and semi-structured interview were utilized as the research instruments. Ahmed divided the subjects into groups according to school and university levels. Results showed that good learners made full use of other learners as a vocabulary knowledge resource, and they tended to use references like monolingual dictionaries as well as bilingual dictionaries as tools to search for further related information.

Gu and Johnson (1996) investigated university students' use of vocabulary learning strategies and its outcomes for their English learning. They used a questionnaire to collect data from eight hundred and fifty Chinese second-year students studying at Beijing Normal University. The results showed that the subjects tended to employ "...more meaning-oriented strategies than rote strategies; contrary to popular belief about Asian learners, the subjects generally did not dwell on memorization". The group of less proficient learners strongly believed in the repetition of word lists.

Schmitt (1997) conducted a survey of six hundred Japanese learners who were taking EFL classes. The subjects were categorized into four groups: junior high school students, high school students, university students, and adult learners. The survey was designed to focus on gaining information concerning strategy use, learners' perception of the helpfulness of each strategy, rating the discovery and consolidation strategies according to usefulness. According to the results, for discovering meaning this was 'bilingual dictionary' (95%), for consolidating meaning 'saying new word aloud' and 'written repetition' (91%). The least helpful strategy for discovering meaning was 'skip new word' (16%); and for consolidating meaning 'image word's meaning' (38%).

Lawson and Hogben (1996, p. 109) investigated the types of VLSs which were used by fifteen University students in Adelaide, Australia, while learning twelve Italian nouns. The learners were asked to make an introspective report (think-aloud method). The three main findings were: a) Learners who used a number of strategies and often used them could succeed in recalling more words. In contrast, learners who were unable to recall many words used less successful strategies; b) Elaboration strategies were superior to repetition and word feature analysis strategies; c) The strategies most frequently used were repetition strategies. It was found that the rehearsal strategy was effective, but not other repetition strategies.

Alseweed's (2000) conducted a research and focused on the training of word-solving strategies. The purposes of the study were: a) to investigate the Saudi undergraduates' use of WSS or word attack strategies while reading English texts; b) to examine the effect of teaching WSS to the students in a normal classroom environment; and c) to find out the differences in data-gathering methods from four research instruments: individual think-aloud (ITA), pair-think-aloud (PTA), immediate interview (IIN), and later interview (LIN). Alseweed carried out sixteen hours of training in WSS (i.e. contextual guessing, morphological guessing, cognate guessing, skipping, and appealing for assistance) over six weeks. Nineteen (n = 19) Saudi male undergraduate university students in their final year studying the English language volunteered to participate in the study.

Some interesting results were revealed: a) "...training in WSS can increase the use of all observed WSS.", b) the high-proficiency learners used WSS more frequently after training, c) when dealing with unknown words in a written text, low proficiency learners turned to the dictionary as their first choice, whereas the high proficiency level ones utilized contextual guessing strategies to deal with the unknown words in the text, and d) the data obtained from ITA and PTA methods provide better or richer data concerning the learners' use of WSS than the LIN and IIN methods. In the study done by Atay and Ozbulgan (2007), the effects of memory strategy instruction along with learning through context on the ESP vocabulary recall of Turkish EFL learners were investigated. They highlighted the benefits of vocabulary learning strategies.

Compensation Strategy

According to Oxford's (1990, p. 17) taxonomy, language learning strategies are divided into two main groups, 'direct strategies' and 'indirect strategies'. Each group includes three different types of language learning strategy (LLS). The former involves memory strategies, cognitive strategies, and compensation strategies; the latter contains supporting LLS, which are metacognitive strategies, affective strategies, and social strategies. Cognitive strategies can be used by the learners to make sense of their learning, memory strategies to store information, and compensation strategies can be applied to help learners to overcome their communication problems. As a matter of fact, Oxford includes the key classifications: cognitive, metacognitive, social and affective strategies. Sub-categories in Oxford's LLS are linked to the four skills of language tasks, i.e. speaking, listening, reading, and writing. However, Oxford remarks: "At this stage in the short history of language learning strategy research, there is no complete agreement

on exactly what strategies are; how many strategies exist; how they should be defined, demarcated, and categorized; and whether it is-or ever will be possible to create a real, scientifically validated hierarchy of strategies (Oxford, 1990, p. 22)."

It is argued by Oxford (1990) with regard to her LLS taxonomy: "This system provides, albeit in imperfect form, a comprehensive structure for understanding strategies." She claims that her LLS system is "a very useful way to examine such strategies", according to many teachers' experience. Also, Oxford's LLS taxonomy comprises the key strategies, i.e. COG, MET, & MEM, which can be accessed easily.

Obviously, problems in classifying strategies remain unsolved. Since there are not so many comprehensive structures of LLS taxonomies, in our study, we have to base our criteria on Oxford's (1990) LLS taxonomy.

Determination Strategy

Dictionary use in Oxford's sense, is classified under cognitive strategies. Both bilingual dictionary (BLD) and monolingual dictionary (MLD) use are, thus, grouped together as one of the sub-categories called determination strategies (DET), under discovery strategies. In our study, we also focus on training in dictionary work (DW), especially MLD. Truly, dictionaries are word information resources. In a real situation, clearly both native and non-native speakers, especially language learners, consult them for both comprehension and production purposes. Dictionaries are within the same boundary as lexicons, thesauruses and so forth. Thus, they are simply recognized as vocabulary reference works (Scholfield, 1997, p. 279). By 'dictionary work' we mean one of six categories related to mixed approach or various types of VLS suggested by Sökmen (1997). According to the study of Thomas and Dieter (1987), DW provides an opportunity to set up memory links from visual as well as motor traces.

Despite the fact that dictionaries are necessary tools, especially for FL/SL learners, to assist them with four skills, i.e., speaking, listening, reading and writing, most students do not read or pay attention to the information provided in the introduction on how to make the best use of a dictionary (Brown & Perry 1991). Presumably, they encounter problems if they do not know how to use the reference effectively.

Graves (1987, p. 175) states that students also need to know a number of things about the particular dictionary they use, for example, what the entries for individual words contain and how they are arranged, what aids to its use the dictionary itself provides, and what features beyond the basic word list the dictionary includes. Much of the important information appears in the front matter of the dictionaries themselves, but it is very seldom read, and simply asking students to read, it is hardly sufficient instruction. Thus, direct instruction in how to use specific dictionaries is needed. Atkins (1985, p. 23) asserts that a dictionary is: "...a tool to be used by people who need to know something about a language. But you can't use it properly unless you learn how it works".

Alseweed (2000, p. 82) conducted his research concerning training 19 Arabic undergraduate students in Word-solving strategies (WSS), contextual guessing,

morphological guessing, cognate guessing, skipping, and appealing for assistance, i.e. asking someone and using dictionaries. He suggests: "... in order to help students to use their dictionaries effectively there might be a need for teaching them the dictionary use strategies." His students were trained how to effectively make use of information given in the MLD, such as, symbols, abbreviations, alphabetical searching for a word and stems of words, and so on.

Moreover, Ronald (2001) probed into the effectiveness of MLD on the seventy-eight Japanese students whose English was rated as intermediate level. The subjects were divided into 'the dictionary definition group' and the example sentences group. The students in the first group were given a set of definitions drawn from the MLD for the target words; the other group received a set of typical corpus drawn example sentences. The subjects were instructed to study the materials, and asked to write the Japanese equivalent to the English definitions. After two weeks they were given a word retention test. The main results indicated: "The Example sentence group performed worse than the Dictionary Definitions group in the test requiring them to give translation equivalents for the target words." This might imply that MLD or other types of dictionaries, to some extent, assist learners' word retention.

METHOD

Participants

The study was conducted with 90 Iranian upper-intermediate EFL learners who were studying English at Shokouh Institute in Rasht, Iran. The participants were selected from three intact classes taking conversation courses. Sixty participants were randomly chosen as the experimental groups and 30 with the same characteristics were regarded as the control group. Their age varied from 18 to 24. In order to make sure of homogeneity, the participants were selected out of 110 upper-intermediate learners based on their results in Oxford Quick Placement Test (OQPT) test. Having calculated the mean and the SD, participants with the score of 1 SD above and below the mean ($\pm 1SD$ from the mean) were selected to conduct the study. The experimental groups received 10-sessions treatment in which they encountered and received compensation and determination strategies. The control group received no treatment.

Instruments

To be sure of the homogeneity in two groups, Oxford Quick Placement Test was administered. The test contains 50 multiple choice questions which assess student's knowledge of key grammar and vocabulary, a reading text with 10 graded comprehension questions, and a writing task for assessing student's ability to produce the language. To find the possible initial differences between the knowledge of vocabulary in the experimental and control groups, a pretest was administered. In so doing, a vocabulary test was used to test the participants' knowledge of vocabulary. This test was taken from "English Vocabulary in Use, Upper-intermediate, written by Stuart Redman (2009). The test was utilized to measure the vocabulary knowledge of the learners in all groups before the treatment. No changes or modifications were made to

the test. A standard and reliable test similar to the pretest was used as posttest after ten weeks of instruction at the end of the treatment. This test which was administered after ten sessions was equal in all respects to pretest. In fact, another version of the vocabulary test from “English Vocabulary in Use -Upper-Intermediate” was used to test the participants’ knowledge of vocabulary after the treatments. Before administrating the OQPT and vocabulary test, a pilot study was made with 15 learners who were randomly chosen. The values of Cronbach’s Alpha for the OQPT and vocabulary test were 0.820 and 0.761, respectively. Both were acceptable indicating that the instruments could be considered as reliable tools for the main study. The researcher introduced the book “Developing reading skills”- written by Markstein and Hirasawa (1982) to be worked on in all groups.

Procedure

This study was conducted in July and August 2016. Three classes including 90 students at Shokouh institute, Rasht were randomly selected as the experimental groups and the control group (30 in each three classes). The homogeneity of the subjects at the beginning of the study was examined through administering of OQPT in order to make sure the subjects were homogeneous in terms of their proficiency level. Among those participants who passed the exam, the ones who could obtain the score one SD above and below the mean were selected for the study. In order to compare the effect of treatment on students’ vocabulary knowledge, before the treatment, a pretest was administered to all groups. After that, the first experimental group received compensation strategy. One problem encountered by many EFL learners is unfamiliar vocabulary and unknown concepts. This is where the reader needs to use compensation strategies to arrive at comprehension. When talking about compensation strategies, according to Oxford (1990), linguistic clues which include suffixes, prefixes, and word order, are useful for guessing meanings. The researcher made use of these clues in the class and taught the students to use such clues to guess the meaning of the unknown words. The second experimental group received determination strategy. They used a monolingual dictionary (e.g. English to English dictionary) which is categorized as the determination strategies.

These dictionaries give detailed guidance on pronunciation, grammar, and usage with explanations written in a controlled, simplified language. In addition, the dictionaries also provide examples of words used in various contexts. These examples of words can help learners master new vocabulary more easily. Most of the time, the teacher encouraged the students to refer to the dictionary and the students were expected to learn new words on their own. The teacher also gave some instructions prior to the treatment on how to use a monolingual dictionary including how to check pronunciation, definitions which were suitable for the words the students were searching for, etc. The control group received no treatment. In other words, placebo strategy was used. After the treatment, a posttest of vocabulary, like pretest was administered to all groups.

FINDINGS

This section focuses on the descriptive analysis of the obtained data in this study. To select homogenous participants as a sample regarding their general language proficiency, the standardized Oxford Quick Placement Test was administered to 110 female EFL learners. The participants answered three sections including the grammar, vocabulary and reading comprehension sections of the test with a maximum possible score of 60 points. Having calculated the mean and the SD, participants with the score of 1 SD above and below the mean ($\pm 1SD$ from the mean) were selected to conduct the study. The results of Oxford Quick Placement Test for 110 learners are presented in the following table:

Table 1

QPT Statistics

N	Valid	110
	Missing	0
Mean		32.7364
Std. Error of Mean		.59167
Std. Deviation		6.20547
Variance		38.508
Minimum		20.00
Maximum		45.00

Table 1 reflects the results of group statistics for the OQPT scores administered for selecting upper-intermediate participants. Measure of central tendency (mean) and measures of dispersion (variance, and standard deviation) were computed for the general English test. The above descriptive statistics was reported for the 110 EFL female learners. For the present study, the main sample including 90 upper-intermediate participants were selected, based on Oxford Quick Placement Test direction.

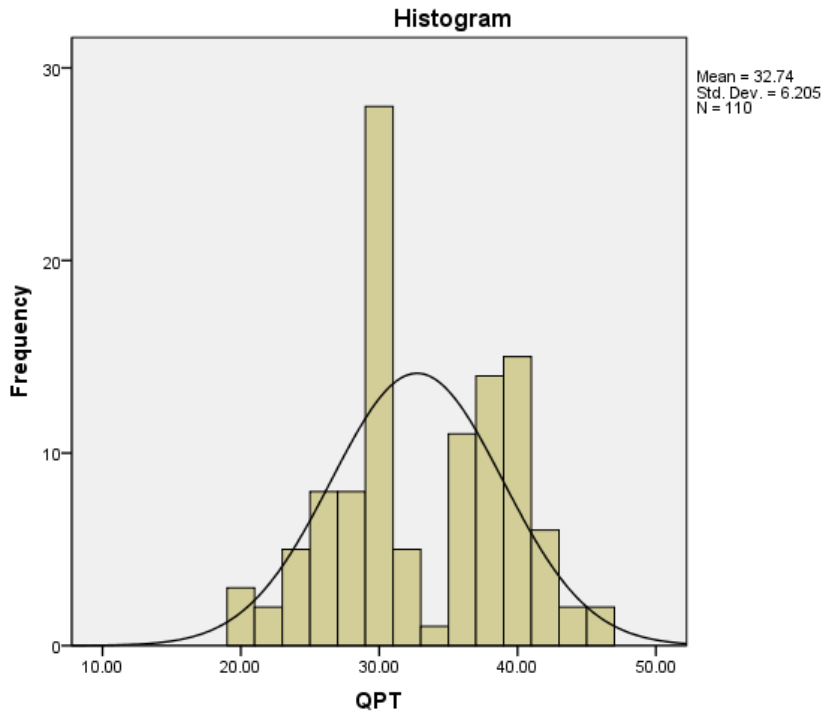


Figure 1
Histogram Illustrating the Results of the OQPT

Table 2
Three Groups

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Compensation	30	25.60	2.583	.578	24.39	26.81
Control	30	20.00	4.013	.897	18.12	21.88
Determination	30	25.45	5.414	1.211	22.92	27.98
Total	90	23.68	4.866	.628	22.43	24.94

Table 2 introduces the frequency of the students in each group. According to this table there are 30 participants in the compensation group, 30 in control, and 30 participants in determination group

The homogeneity of variance option gives the Levene’s test for homogeneity of variances, which tests whether the variance in scores is the same for each of the three groups. The significance value (Sig.) for Levene’s test should be checked. If this number is *greater* than .05 (e.g. .08, .28), the assumption of homogeneity of variance has not been violated. In this case, the Sig. value is .312. As this is greater than .05, we have not

violated the homogeneity of variance assumption. One-way between-groups ANOVA is used when we have one independent (grouping) variable with three or more levels (groups) and one dependent continuous variable. The 'one-way' part of the title indicates there is only one independent variable, and 'between-groups' means that you have different participants in each of the groups. In this study, in order to test the null hypothesis.: Using compensation and determination strategies do not have any significant effect on Iranian EFL learners' vocabulary development, One-Way ANOVA was conducted.

Table 3
ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	407.233	2	203.617	11.726	.000
Within Groups	989.750	57	17.364		
Total	1396.983	59			

Table 4 gives both between-groups and within-groups sums of squares, degrees of freedom etc. If the Sig. value is less than or equal to .05 (e.g. .03, .001), there is a significant difference somewhere among the mean scores on the dependent variable for the three groups. This does not indicate which group is different from which other group. The statistical significance of the differences between each pair of groups is provided in the table labeled Multiple Comparisons, which gives the results of the post-hoc tests. In this case, the overall Sig. value is .00, which is less than .05, indicating a statistically significant result somewhere among the groups. Having received a statistically significant difference, we can now look at the results of the post-hoc tests conducted by SPSS software.

Table 4
Multiple comparisons Tukey HSD

(I) three groups	(J) three groups	Mean Difference (I-J)	Std. Error	Sig.
Compensation	Control	5.600	1.318	.304
	Determination	.150	1.318	.993
Control	Compensation	-5.600*	1.318	.000
	Determination	-5.450*	1.318	.000
Determination	Compensation	-.150	1.318	.993
	Control	5.450	1.318	.230

*. The mean difference is significant at the 0.05 level.

Table 4 is used only, if the Sig. value was equal to or less than .05. The post-hoc tests in this table will indicate exactly where the differences among the groups occur. Two paired sample t-tests between pretest and posttest scores were also conducted to see whether the treatment was effective or not. The results are presented in the following tables.

Table 5
First Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest compensation	17.8000	30	2.16673	.48450
	posttest compensation	25.4500	30	2.52305	.56417

Table 5 illustrates the mean and standard deviation for the first pair in the present study, compensation group.

Table 6
Second Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 2	pretest determination	18.1500	30	2.34577	.52453
	posttest determination	27.5500	30	3.42552	.76597

Table 6 illustrates the mean and standard deviation for the second pair in the present study, determination group. The following two tables show the results of two paired sample t-tests between the two experimental groups.

Table 7
Paired Samples Test first group

		Paired Differences		T	Df	Sig. (2-tailed)
		95% Confidence Interval of the Difference				
		Lower	Upper			
Pair 1	pretest deter – postdeter	-8.28111	-7.01889	-25.371	19	.000

Table 8
Paired Samples Test second group

		Paired Differences		T	Df	Sig. (2-tailed)
		95% Confidence Interval of the Difference				
		Lower	Upper			
Pair 1	pretest deter – postdeter	-10.34094	-8.45906	-20.909	19	.000

The Sig. value in both Tables 7 and 8 indicates that the treatment has been effective.

Based on the findings of this study, the results of ANOVA analysis and paired sample t-tests revealed that using determination and compensation strategies led to better performance of the participants in the vocabulary test. Therefore, the null hypothesis was rejected.

DISCUSSION

The present study is motivated by the need to shed some light on one of the main issues in TEFL, namely developing vocabulary by removing obstacles which most teachers and students encounter in EFL classrooms. Vocabulary is central to language and is of great

significance to language learners. Vocabulary learning strategies (VLSs) help facilitate learners' vocabulary learning. A large and rich vocabulary items can be acquired with the help of VLSs (Nation, 2001). According to the findings of this study, determination and compensation strategies can significantly improve learners' vocabulary development. The results suggest that vocabulary can be fostered by instructing through determination and compensation strategies for guessing the unknown and unfamiliar word. In fact, both of them are useful methods for foreign language learners to improve their vocabulary development. It can be concluded that determination and compensation strategies are the effective way of developing vocabulary. Both of them are effective in several ways. As learners are engaged in reading, the presence of these strategies can captivate their imagination and make the students' vocabulary motivating and interesting. In addition, they make students involved in vocabulary learning process.

The findings of the present study also corroborate those of Atay and Ozbulgan (2007) who believe that learners' strategy facilitate second/foreign language vocabulary learning and recall.

Moreover, the findings of the study support Oxford's research (1990) that compensation strategies can be applied to help learners to overcome their communication problems. In addition, this study is congruent with the one conducted by Sanaoui's (1995). He found that learners who had a structured learning approach were more successful in retaining vocabularies taught in their class than learners who had an unstructured learning approach. The results are in line with the findings of Schmitt (1997) that the most helpful strategy for discovering meaning was bilingual dictionary. The present study possesses limitations associated with time and sample-size. This study was carried out with 90 subjects and for 10 sessions. The students that participated in this study were all females. Hence, it may affect the generalizability of the research findings.

CONCLUSION

Teaching vocabulary development involves more than teaching the definition of technical or unfamiliar words in texts. It also requires understanding how the words are learned in non-instructional contexts through conversation and reading. Nagy (1989) believes that we do not learn much from looking up words in a dictionary and memorizing definitions. Vocabulary teaching is the process of selection and presentation of words for learners. Determination and compensation strategies are the effective way of developing vocabulary. In fact, when learners encounter a word, a lexical entry for that word must provide information of two different types: form and meaning. Lexical recognition is said to be "the point at which a one-to-one match is achieved between words encountered in speech or writing and a word in the mind" (Field, 2004, p. 155).

Vocabulary development has been beneficial not only for the students, but also for the teacher (Huckin,1997). Likewise, the awareness of learners' different choices of strategies, the range and amount of the strategies used by different learners, and also learners' individual differences can help teachers make a careful plan to improve teaching vocabulary. In other words, reflecting on what strategies learners use can improve the teacher's understanding of the learning process, leading to more effective

teaching. According to the findings of this study, providing the students with determination and compensation strategies significantly improve their vocabulary's development. Therefore, different stakeholders such as teachers, curriculum developers, course designers, etc. should take this into account.

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