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The Effect of Teaching Vocabulary Learning Strategies on Iranian EFL Learners' Receptive and Productive Vocabulary Size

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ABSTRACT

After some years, vocabulary research has once again found its fundamental position in pedagogical studies as an inseparable component of language instruction. However, many studies conducted have focused more on vocabulary learning strategies rather than explicit instruction of these techniques. The present study, though, seeks to find out whether teaching vocabulary learning strategies is effective in enhancing the knowledge of EFL learners. Two vocabulary tests of Lex30 and Vocabulary Size Test were administered to 51 intermediate Iranian EFL learners. By employing a mixed method approach, five distinct semi-structured interview sessions were held. The results of independent samples *t*-tests revealed the effectiveness of teaching vocabulary learning strategies as the experimental group outperformed the control group. Moreover, the analysis of transcribed data suggested that learners showed positive attitude toward instruction of vocabulary learning strategies. Finally, some pedagogical implications for teaching vocabulary are offered.

Keywords: Explicit vocabulary teaching, vocabulary learning strategies, vocabulary size, receptive vocabulary, productive vocabulary

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INTRODUCTION

Although many research studies have explored L2 vocabulary learning through different techniques (Dobao, 2014; Kang, 2015; Nation, 2011; Schmitt, 2010), the arena of language teaching is in dire need of further vocabulary studies. Furthermore,

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enhancing vocabulary has always been a heated debate among scholars. Across all facets of second language learning, vocabulary development has been considered a challenging issue (Ender, 2016) that calls for ongoing attention, especially in an EFL context where the research suggests vocabulary learning may be ineffective (Webb & Chang, 2012).

Learning strategies have been studied widely with regards to various variables in different contexts (Sahragard, Khajavi, & Abbasian, 2016). According to Oxford (1990), learning strategies are those steps that are taken by students in order to develop their language learning. It is generally believed that using strategies in language learning are beneficial (Anderson, 2005; Cohen, 1998; Ehrman & Oxford 1990; Macaro, 2001; Oxford, 1990, 2011). When students know how to learn by means of focusing on learning strategies, the gap between learning and instruction is supposed to be fulfilled (Nunan, 1995). Learners, at the same time, can practice learning strategies autonomously when they are encouraged to apply strategies out of the classroom context (Wong & Nunan 2011).

Strategic teaching has been seen to be valuable with regards to language learning outcomes. Language learners' self-regulating strategies and subsequently learner autonomy could be improved by means of instruction, which is based on strategies (Nguyen & Gu 2013). Likewise, Dörnyei (2001) emphasized that teachers were in charge of employment of teaching strategies to enhance and maintain learners' motivation. As fruitful language learning imposes supplementation of various learning strategies, teachers should establish a flexible agenda to meet individual differences among learners because taking the individual sources of variation into account is supposed to be a principle (Ellis, 2005). Ellis asserted that such instruction required promoting demonstration of language learning by means of empirical and logical approaches to strategies. Accordingly, it is likely that vocabulary instruction could benefit from implementation of learning strategies.

Stating eight considerations in teaching vocabulary, Richards (1976), asserted that "a major feature of second language program should be a component of massive vocabulary expansion". Notably, he mentioned that teaching vocabulary strategies was not for instructing what a word means, nor was it for aiding learners to adopt the definitions that were provided in the dictionary (Ooi & Kim-Seoh 1996). Rather, the teacher's role is to aid learner to conceptualize vocabulary acquisition. Thus, teaching vocabulary learning strategies should be considered a required desideratum for a successful language curriculum. However, a large number of research conducted in this area (Kim, 2013; Laufer & Hulstijn, 2001; Pigada & Schmitt, 2006; Schmitt & Schmitt, 1993; Tseng & Schmitt, 2008) have focused on the role vocabulary learning strategies rather than teaching them explicitly. When the best method of vocabulary learning is unclear (Schmitt, 2008), the best means of instructing new words would be vague. Yet, scrutinizing

the effectiveness of teaching strategies directly in promoting vocabulary knowledge deserves attention.

LITERATURE REVIEW

Vocabulary Learning Strategies

Vocabulary has been widely studied in the realm of language learning. Different vocabulary studies have focused on different issues such as incidental and intentional aspects of vocabulary learning (Schmitt, 2008; Teng, 2016), dimensions of receptive and productive vocabulary knowledge (Harsch & Hartig, 2016; Lee & Muncie, 2006; Webb, 2008), and different vocabulary learning strategies (Elgort & Warren, 2014; Zhang & Li, 2011). In addition, in some other studies, the interest was directed toward measuring vocabulary size of language learners (Nation, 2006; Schmitt & Schmitt, 2014; Webb & Rodgers, 2009a, 2009b) to provide a comprehensive picture of vocabulary development in a second or foreign language. It is believed that measuring vocabulary size is helpful in diagnosing learners' knowledge of required words for particular tasks (Karami, 2012), charting their growth regarding vocabulary acquisition (Beglar, 2010), and designing educational programs for language learners (Nguyen & Nation, 2011).

In 1990s, a number of related studies on vocabulary learning strategies were conducted. Sanaoui (1995) categorized vocabulary learning approaches used by adult learners as structured and unstructured. The learners who approached vocabulary learning structurally were self-initiated, acted independently to apply strategies, and had a better performance in recall. Although the focus of this study was on vocabulary learning strategies, there were some points referring to the importance of "instructors' guidance in developing effective approaches to vocabulary study".

Studying vocabulary learning strategies of 15 foreign (Italian) language students in Australia, Lawson and Hogben (1996) found that repetition in vocabulary learning was frequently practiced while leaners were unwilling to use more complex strategies in learning vocabulary. Nevertheless, they declared that these elaborative procedures were more likely to be useful in comparison with repetition. One of the limitations of their study was that all the participants were female. In this study, data collection was through think-aloud procedure, which could not result in inclusive depiction of the use of all strategies. Moreover, it appears that the focus of authors was mainly on the role of context, not strategies.

In 1996, Gu and Johnson had done a research on vocabulary learning strategies and learning outcomes of adult Chinese EFL learners. Their study revealed that successful EFL learners, who applied various vocabulary learning strategies (e.g., metacognitive, guessing, dictionary use, note-taking, memory, activation), could be potentially proficient language learners. As "a large part of EFL vocabulary learning necessarily involves skill learning" (Gu & Johnson 1996), teaching vocabulary learning strategies would involve showing how to practice learning skills. Then,

teaching vocabulary learning strategies is operationally defined as intended and principled instruction of strategies to develop language learners' vocabulary knowledge by enhancing the receptive and productive vocabulary size of learners.

Developing Vocabulary through Strategies

Recently, some studies have addressed vocabulary learning strategies (Ender, 2016; Fan, 2003; Kim, 2013; Wei, 2015; Zhang & Li, 2011). For example, Fan (2003) reported the categorization of L2 vocabulary strategies used by Hong Kong learners. Although it was not illuminated how EFL learners' repertoire of certain strategies of vocabulary learning was evaluated, this study implied that familiarizing students with the significance of strategies was of importance. Regarding strategies evaluation, Tseng, Dörnyei, and Schmitt (2006) asserted that measuring strategy use through questionnaires was a challenging task since vocabulary learning strategies engage interrelated mental processes.

In a recent study, Kim (2013) closely scrutinized the effect of affixation knowledge as a strategy on vocabulary learning of 54 students of a private English school in Korea. The control group learnt vocabulary through memorization and the experimental group learnt vocabulary based on prefixes and suffixes. The results proved the effectiveness of affixation knowledge in facilitating vocabulary learning in comparison with simply memorizing new words. This research was informative but like many other studies (Pigada & Schmitt, 2006; Schmitt & Schmitt, 1993) it emphasized on learning strategies rather than teaching these strategies.

Discussing incidental vocabulary acquisition, Ender (2016) argued that when learners established top-down or guessing procedures, they focused on meaning, not on forms of words. Nation (2001) asserted that guessing the meaning of a word calls for learner's different exposures in various contexts as each context presented a limited range of word meanings. Therefore, by considering the complementary role of guessing from context in learning word meaning, Schmitt and McCarthy (1997) stated that establishment of an eclectic approach was required for teaching vocabulary.

According to Webb and Chang (2012), learners should be trained on methods of dealing with unknown vocabulary items. It could be possibly fulfilled through teaching vocabulary learning strategies. This is crucial for students' academic success that teachers find and instruct effective and efficient strategies to help learners enhance their vocabulary knowledge extensively (Ebner & Ehri, 2016). They should decide what strategies are required to predict students' success in vocabulary mastery. It is believed that the strategies that concentrate on learning the forms and word associations are better predictors of vocabulary breadth and depth (Zhang & Lu, 2015) and subsequently vocabulary depth seems to be a significant

predictor of reading comprehension rather than learners' vocabulary size (Zhang & Yang, 2016).

In effect, the role of teachers in instructing vocabulary learning strategies deserves to be investigated. Considering the variety in learners' strategy use, Nation (2001) argued that it was required for language teachers to afford a planned and strategic instruction. Even, in the case of online vocabulary acquisition, through internet and online courses, learning should be strategically complemented with the presence of a teacher. Examining students' online vocabulary learning through structured think-to-yourself technique, Ebner and Ehri (2016) asserted that teachers' role was to ensure students' effective online learning of new words. Furthermore, teachers' provision of required metacognitive strategies is necessary for learners' productive online learning (Ebner & Ehri, 2016).

In short, there is a sufficiently established knowledge foundation about learning strategies to enhance vocabulary. Nevertheless, rare studies have focused on strategy training (see Maeng & Lee, 2015 for practice of motivational strategies in teaching vocabulary). Thus, the role of instructing strategies in the area of vocabulary learning needs to be investigated. Nation (2013) believed that the most important responsibility of a teacher after planning was training learners use of effective strategies because regular inclusion of strategy instruction in a course makes learners skillfully independent. Regarding the slow process of incidental vocabulary acquisition in EFL contexts, explicit instructional practices such as multimedia glossing have been prioritized by researchers to develop vocabulary teaching and learning (Khezrlou & Ellis, 2017). Therefore, the concurrent study aims to examine the effect of explicit instruction of vocabulary learning strategies on Iranian EFL learners' receptive and productive vocabulary size.

Research Questions

The aim of this study is to probe whether teachers' instruction on vocabulary learning strategies has an effect on both receptive and productive vocabulary size of Iranian EFL learners. Thus, the present paper seeks to address the following questions:

1. To what extent does teaching vocabulary learning strategies have an effect on Iranian EFL learners' receptive vocabulary size?

2. To what extent does teaching vocabulary learning strategies have an effect on Iranian EFL learners' productive vocabulary size?

3. What are learners' attitudes toward explicit instruction of vocabulary learning strategies?

METHOD

Participants

Two vocabulary tests were administered to 51 English language and literature students, conveniently selected from two similar

groups of the same educational grade from Hakim Sabzevari University, Iran. All the participants (20 males and 31 females) were first-year students of the Reading Comprehension Course with intermediate level of language proficiency. Notably, their age ranged from 18 to 21 years. In addition, all of them had taken English courses at secondary and high school and at the time of conducting the current study, they had at least 6 years of experience in learning English as a foreign language. Furthermore, five of these students volunteered to participate in semi-structured interviews that were conducted by the researchers with the aim of determining how learners feel about explicit teaching of vocabulary learning strategies.

Instruments

The Bilingual Version of Vocabulary Size Test. The Vocabulary Size Test (VST), developed by Nation and Beglar (2007), measures total written receptive vocabulary size of ESL or EFL learners. A growing body of research supports the use of both monolingual and bilingual versions of VST and confirms their reliability (Amirian, Salari, Heshmatifar, & Rahimi, 2015; Beglar, 2010; Elgort, 2013; Karami, 2012; Nguyen & Nation, 2011). Beglar (2010) reported that this test examined one construct regarding vocabulary knowledge (i.e., written receptive vocabulary size) and enjoyed high degree of measurement precision, data reliability, and test validity.

Vocabulary Size Test also has bilingual versions. According to Nguyen and Nation (2011), the behavior of monolingual and bilingual versions of this test are similar in that they distinguish learners with various proficiency levels. Karami (2012) also demonstrated the bilingual version enjoyed acceptable level of reliability. Similarly, Amirian et al. (2015) concluded that the Persian bilingual version of VST enjoyed a high level of reliability, shaped a meaningful difficulty range, and measured one underlying factor. Thus, in this study, the Persian version is preferred. Using the bilingual version has some advantages over the monolingual version. To mention one, learners feel more comfortable with this version (Karami, 2012). Second, low-proficient learners could also participate in VST when L1 definitions are provided (Elgort, 2013).

Lex30. Lex30, as a test of productive vocabulary, was first introduced by Meara and Fitzpatrick (2000). It elicits words that are supposed to be representative of learners' productive vocabulary breadth (Fitzpatrick, 2000). Its items that are 30 stimulus words meet three criteria: stimulus words are highly frequent, no strong primary word is intended to be elicited, and each word does not trigger a common response. Lex30 has a major advantage over traditional ways of assessing productive vocabulary knowledge, in that the elicited responses are "lexically very dense" because they are mostly content words (Fitzpatrick & Meara, 2004).

Studying 46 learners of EFL, Meara and Fitzpatrick (2000) found Lex30 could be practical as it took less amount of time to administer, was easy to administer,

benefited from lenient scoring method, and had acceptable reliability level to ensure its potential for estimating productive vocabulary size. Walters (2012) figured out that Lex30 was a reliable and valid measure of productive vocabulary knowledge as it showed good concurrent validity with two other tests of productive vocabulary knowledge. Also, Fitzpatrick and Meara's (2004) study established that Lex30 benefited from a high degree of test–retest reliability. In addition, Fitzpatrick and Clenton (2010) presented a strong argument for the validity of Lex30. In the present study, a paper-pencil version of this test was carried out.

Semi-structured Interview. Semi-structured interview is conducted when an interviewer asks general questions and the interviewee is not limited to these prescribed questions (Dowsett, 1986 as cited in Nunan & Bailey 2009). Dowsett also noted that semi-structured interview provided the researcher with rich data and made social relationships accessible for the researcher in a deep way. According to Nunan and Bailey (2009), regarding the flexible nature of semi-structured interview, it is favored by many researchers.

Procedures

First, participants were assigned conveniently to two groups of control and experimental. Then, to ensure the homogeneity of the sample and their equal level of English proficiency, Oxford Placement Test was administered to all learners in a separate session before pre-test phase. Then, collected data were analyzed by SPSS version 23.

At pre-test phase, in two separate classroom sessions, Lex30 and bilingual VST were administered to both control and experimental groups to measure their receptive and productive vocabulary size. In case of the former, before running the examination, all the required instructions were provided. Then, learners were offered as much time as they needed and no time limit was set as it had been suggested by the developers of Lex30 (Meara & Fitzpatrick, 2000). However, it took about 20 minutes for participants to write the words they recalled. The collected papers were then imported to online version of Lex30 available at http://www.lognostics.co.uk/tools/Lex30/index.htm. The rationale behind doing so was ease and precision of scoring. In case of bilingual VST, learners were provided with test paper and were asked to answer the items whose meaning they are sure about. In fact, learners were suggested not to guess the meaning of any word as it will cause error in evaluation. Schmitt (2014) noted that generally all receptive measures of vocabulary applied multiple choice format that was supposed to be a source of variation because the chance of benefiting from guessing increased.

After test administration at pre-test phase, participants' performance in bilingual VST was analyzed to determine which words learners have no knowledge about. Therefore, the experimental group was taught selected words through instruction vocabulary learning strategies including

metacognitive regulation, guessing, dictionary use, note taking, memory strategies, and activation strategies (Gu & Johnson, 1996). First, one strategy was elaborated to leaners and then one selected word was instructed as an example to show them how to apply a strategy and to raise their awareness. On the other hand, the control group did not receive any instruction in strategies and learned selected words traditionally. Ten weeks later when the students had passed 10 instructive sessions, the post-tests were conducted. The same procedures were followed at post-test phase for Lex30 and bilingual VST administration.

Afterwards, to review learners' feedback on particular approaches toward teaching vocabulary learning strategies, semi-structured interviews were conducted. Measures such as trying to make the participants feel comfortable, attending to the interviewees' characteristics, asking the key questions in the middle, and keeping an open-ended discussion (Mackey & Gass, 2005) were taken to obtain reliable data. The recorded interviews were then transcribed and imported to MAXQDA version 12 to be qualitatively analyzed.

RESULTS

The present study was designed to determine the effect of teaching vocabulary learning strategies on vocabulary knowledge of Iranian EFL learners. In this section, the results of the study are presented and discussed. Moreover, schematic representation of the analyzed data is provided.

To understand whether the sample of the study is homogenous or not, Oxford Placement Test was administered. With regards to descriptive statistics, the mean score of experimental group was 21.84 (SD = 4.90) and the mean score of control group turned out to be 21.44 (SD = 4.29). Then, independent sample t-test using SPSS version 23 was run to check the homogeneity of the sample. The results are shown in Table 1.

Table 1

Independent samples t-*test for oxford placement test*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	*T*	df	Sig. (two-tailed)
Score	Equal variances assumed	0.09	0.76	0.31	49.00	0.75
	Equal variances not assumed			0.31	48.58	0.75

As shown in Table 1, with regards to attained *p* value, there is no significant difference between two groups in terms of their performance in the Oxford Placement Test; $T(49) = 0.31, p ,.= 0.76 > .05$. This confirms the homogeneity of the two groups.

To ensure normality of the data achieved from Oxford Placement test, the Shapiro-Wilk test and the Kolmogorov-Smirnov test were used. The results are offered in Table 2.

Table 2

Tests of normality for Oxford Placement Test

		Kolmogorov-Smirnov			Shapiro-Wilk		
	Groups	Statistic	df	Sig.	Statistic	df	Sig.
score	Experimental	0.127	26	0.200*	0.970	26.00	0.624
	Control	0.111	25	0.200*	0.965	25.00	0.516

*This is a lower bound of the true significance.

As shown in Table 2, the obtained *p* value was 0.624>0.05, which ensures normality of the data. Thus, these findings acknowledged the normal distribution of the collected data.

In addition, in pre-test phase, both Lex30, as the measurement of productive vocabulary size, and bilingual VST, as the measurement of receptive vocabulary size of learners were run. The schematic representation of the analyzed data are given in Table 3.

Table 3

Independent samples t-test for Lex30 in pre-test phase

		Levene's Test for Equality of Variances		*t*-test for Equality of Means		
		F	Sig.	T	df	Sig. (two-tailed)
Score	Equal variances assumed	.063	0.80	0.01	49.00	0.99
	Equal variances not assumed			0.01	48.49	0.99

At the pre-test phase, no notable difference was seen between experimental group ($M = 38.92$, $SD = 12.00$) and control group ($M = 38.88$, $SD = 12.77$) in terms of their productive vocabulary size. Then, from the data in Table 3, it is apparent that *p* value is larger than 0.05 ($T(49) = 0.01$, $p > 0.05$) and the two groups are close to each other in terms of their productive vocabulary size.

Table 4

Independent samples t-test for bilingual VST in pre-test phase

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (two-tailed)
Score	Equal variances assumed	1.59	0.21	-0.19	49.00	0.84
	Equal variances not assumed			-0.19	41.08	0.84

Regarding descriptive statistics of bilingual VST at pre-test phase, mean score for experimental group was 21.34 (*SD*= 5.80) and the mean score for the control group was 21.76 (*SD* = 8.89). As shown, in Table 4, both groups are close in terms of the receptive vocabulary size as the *p* value is significantly higher than Cronbach alpha 0.05 (T (49) = −0.19, p = 0.21). Taken all together, these findings suggest homogeneity of control and experimental groups.

To examine the effectiveness of instruction of vocabulary learning strategies on learners' receptive and productive vocabulary size, independent sample *t*-tests were run for comparing the mean scores of groups.

Table 5

Independent samples t-test for bilingual *VST in post-test phase*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	*t*	df	Sig. (two-tailed)
Score	Equal variances assumed	0.000	0.992	−2.20	49.00	0.032
	Equal variances not assumed			−2.20	48.93	0.032

Table 5 depicts the results of independent samples *t*-test for VST scores. According to the obtained *p* value, it is obvious that the experimental group that has been taught vocabulary learning strategies outperformed the control group; T (49) = −2.20, p= 0.032 < 0.05. In other words, enjoying from direct instruction of vocabulary learning strategies, they showed higher receptive vocabulary size. Because, the attained *p* value is significant (=0.032 <0.05), it could be concluded that explicit teaching vocabulary learning strategies is very effective in extending receptive vocabulary size of Iranian EFL learners.

Based on descriptive statistics, after treatment session, there was a huge difference between means of experimental

group (M = 48.84, SD = 14.40) and control group (M = 38.26, SD = 11.80) in terms of their productive vocabulary size.

Table 6

Independent samples t-test for Lex30 in post-test phase

		Levene's Test for Equality of Variances		*t*-test for Equality of Means		
		F	Sig.	T	df	Sig. (two-tailed)
Score	Equal variances assumed	1.23	0.27	−2.87	49.00	0.006
	Equal variances not assumed			−2.86	46.41	0.006

An independent samples *t*-test shows that experimental group scores are significantly higher that control group; T (49) = -2.87, p= 0.006 < 0.05. Table 6 indicates p value of 0.006 that shows a significant difference between the two groups in terms of their productive vocabulary size. This suggests that teaching vocabulary learning strategies have been meaningfully beneficial to enhance productive vocabulary size of Iranian EFL learners.

In the second phase of the study, from the analysis of transcribed interviews, a number of issues were identified. Analysis of the qualitative data revealed that the participants on the whole demonstrated a positive attitude toward direct teaching of strategies and its practicality in enhancing their vocabulary knowledge. In other words, participants, almost all, recognized this kind of instruction to be interestingly helpful. For instance, Karim said:

"*As this type of instruction is interesting to me, I am motivated now to apply it in all my vocabulary learning*."

In the same line, Michael (a pseudonym) remarked:

"I would prefer this style rather traditional methods of introducing lists of vocabulary items from books and then taking an exam."

The positive view was echoed by another informant who talked about the beneficial role of direct teaching of vocabulary learning strategies in recalling words as she said:

"*Naturally, I cannot remind the words that I have learnt before but interestingly I remember the taught words through strategies because they are assigned to my background*."

Another major theme which was recognized was the key role of the teacher in this kind of instruction. One informant reported the fundamental role of the teacher in this type of instruction; teacher as a modeler. Asked about her feedback, Sarah (a pseudonym) expressed herself this way:

"*The strategies were vague to med till the teacher, himself, acted as a model. From*

then on, I recognized how to apply them and learn confidently."

Similarly, Beth (a pseudonym) mentioned:

"*In teaching strategies, teacher is the key. I mean he can make the students motivated to learn these techniques*."

In summary, for the informants in this study, explicit teaching of vocabulary learning strategies and teacher modeling were beneficial in boosting their lexical knowledge and making them motivated to learn new vocabulary items in an interesting way. Taken together, the results of the study proved the effectiveness of teaching vocabulary learning strategies in enlarging the vocabulary size of Iranian EFL learners in terms of both receptive and productive vocabulary. The findings also implied that successful explicit teaching of vocabulary, considering constraints such as time limit and funds, calls for strategic pedagogical moves.

DISCUSSION

The first research question of this study concerned whether teaching vocabulary learning strategies has an effect on the receptive vocabulary size of Iranian EFL learners. The results suggest that explicit instruction of these techniques would enhance learners' receptive vocabulary size significantly. Aligned with this finding, Nation (2011) stated the usefulness of strategies such as guessing, mnemonic devices, using dictionary and word cards, and finally keyword and word part techniques in developing vocabulary learning. Noting the devotion of class time for the mentioned strategies, he stressed for acquiring independency in using these strategies as the purpose of their instruction. Similarly, Webb and Chang (2012) asserted the benefits of including strategy training in vocabulary programs as they made learners prepared and capable of dealing with new words effectively.

However, Nation (2011) highlighted the effectiveness of using word cards in comparison with teaching new words and vocabulary exercises and argued that it could be more convenient "to reduce the time given to vocabulary teaching and doing vocabulary

exercises and use this time for extensive reading, fluency development, and meaning-focused input and output activities". This argument does not seem to be in line with the findings of the current study which note the beneficial role of direct instruction of strategies through which vocabulary size will be boosted. Notably, according to P. Nation, vocabulary size relies on several other factors such as time spent on learning, motivational level, and opportunities for input (personal communication, March 12, 2016).

Regarding the second research question, the findings reveal the effectiveness of teaching vocabulary learning strategies in boosting productive vocabulary size. According to Ur (2012), "most researchers agree that we need to include some deliberate, focused vocabulary teaching procedures as a supplement to – though not a substitute for – incidental acquisition through extensive

reading and listening". Although the essence of lexical knowledge is complicated (Schmitt, 2014) and the complex concept of productive vocabulary engages many subdivisions, it is acknowledged that responding to items of Lex30 does not indicate a maximum level of productive lexicon as it is supposed to measure vocabulary recall rather than word use (Fitzpatrick & Meara, 2004). T. Fitzpatrick believed that recall was one component of productive vocabulary knowledge that was supposed to be measured by Lex30 (personal communication, September 19, 2016). Moreover, learners' inability to use vocabulary items does not necessarily imply their lack of knowledge of those words (Dobao, 2014).

Finally, qualitative data analysis revealed two major themes. First, practice of strategies enhances the learners' level of motivation. Tanaka's (2017) study revealed that enhancing the level of enjoyment and consequently motivation in learners was a key factor in developing their vocabulary size. In another study, Otwinowska-Kasztelanic (2009) found out that learners might know many cognates but they would benefit from their knowledge only when their awareness was raised through training. Then, learners possibly change their attitudes as well as their use of vocabulary learning strategies. From this remark, it could be concluded that few instructors are likely to use these strategies practically in their classroom teaching. This finding highlights Nation's (2011) position that application of strategies is beneficial for learners "but very few teachers seem prepared to make such strategy training a regular part of their vocabulary program".

This finding was in line with what Sanaoui (1995) found out; learners who are equipped with vocabulary learning strategies are more successful in vocabulary recall in comparison with those learners who are not provided with these strategies. Furthermore, learners' establishment of frequent strategies is positively correlated with their level of English and self- efficacy (Anam & Stracke, 2016). Exploring two broad viewpoints on autonomous learners, Oxford (2015) asserted that self-regulated learners took learning strategies into account. In other words, learners' employment of intentional actions with the aim of learning (Oxford, 2011) and management of language learning strategies would result in self-regulation (Oxford, 2015). When vocabulary learning follows a self-regulated process, it leads to self-efficacy as well. Concurrently, self-efficacy that is a characteristic of autonomous learner leads to vocabulary enhancement (Mizumoto, 2013).

Second, the teacher plays a chief role in motivating leaners and concurrently teaching vocabulary through strategies. Dörnyei (2001) asserted the significant role of teachers in motivating students' language learning, especially with an outlook toward learners' long-term developmental objectives. In support of Laufer's (2003) claim that teachers would influence vocabulary learning mostly, Webb and Chang (2012) noted careful planning to be a chief role of teachers in vocabulary

courses. However, according to Sugita and Takeuchi (2010), teachers' practices are not the only source of motivational strategies. Moreover, these motivational techniques vary in different EFL contexts as they depend on cultures (Wong, 2014).

CONCLUSION AND IMPLICATION

Many studies on vocabulary have considered the role of strategies in enhancing learners' vocabulary knowledge. At the same time, the focus of the majority of the vocabulary studies is on output of expanding vocabulary span instead of the process of learning strategies to achieve this purpose. Then, the present study aimed to find out to what extent teaching vocabulary learning strategies impacts vocabulary size of learners.

In summary, the results of the current study showed that vocabulary teaching strategies are significantly effective in enlarging both productive and receptive vocabulary size of EFL learners as the experimental group, who were provided with instruction of vocabulary learning strategies, outperformed the control group, who had not received any specific strategy instruction. This finding implied the necessity to include strategic teaching of vocabulary in curriculum, educational programs, and language courses.

Furthermore, on the qualitative phase of data analysis, participants revealed their positive feedback toward instruction of vocabulary learning strategies. They mentioned functions of motivation and mental preparedness as major benefits of this kind of strategic vocabulary learning. This implies that instructors should first notice the role of raising awareness and then teach new items through elucidating learning strategies. In other words, creating a motivating atmosphere needs to be involved in the process of explicit vocabulary instruction with the aim of preparing learners.

In addition, there could be mismatch between teachers' theoretical knowledge and practices in the pedagogical context due to various factors such as populated classes, shortage of time, and reluctant students. It could possibly happen when instructors themselves are not familiar with the desirability, applicability, and practicality of strategies in their classes. It implies that language learners' lack of knowledge about what these strategies are and how they could be applied would be a problematic issue, which impacts their vocabulary learning.

As vocabulary knowledge is multifaceted, keeping the balance between its receptive and productive aspects needs attention. In the case of an EFL context, it seems that receptive vocabulary knowledge is emphasized at the cost of productive dimension of vocabulary. Then, future studies may explore how to keep balance between receptive and productive mastery of vocabulary knowledge.

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