The Relationship between EFL Learners' Vocabulary Learning Strategies, Successful Intelligence, and Language Performance

Mohammad Mohammadi

Assistant Professor, University of Urmia, Iran

Khoshnam Ebrahimian[*]

Ph.D. Candidate, University of Urmia, Iran

Abstract

Learning vocabulary is considered as a crucial element in attaining a high level of proficiency in the target language for EFL learners. Moreover, paying attention to personal features of the learners like successful intelligence is an important factor in language learning contexts. The current study intended at exploring the relationship between vocabulary learning strategies that EFL learners use, their successful intelligence and their language performance. The participants of the study were 63 male EFL learners at Goldis Language Institute. The instruments were Strategy Inventory for Language Learning (SILL) prepared by Oxford (1990), which measures six strategies with 27 questions. The second instrument was Successful Intelligence questionnaire, developed by Sternberg and Grigorenko in 2002 with 36 items. Learner's final exam scores were considered as the rate of their language performance. Pearson Correlation Coefficient was used to analyze the collected data. Multiple Regression was administered to see which of these components predict language performance more. The obtained results revealed that there is a significant relationship between learners' successful intelligence, vocabulary-learning strategy, and their language performance. The findings of the present study can provide several pedagogical implications that can be useful for both EFL teachers and learners.

Keywords: successful intelligence, vocabulary-learning strategy, language performance

INTRODUCTION

Nowadays English language is used as an international language; consequently, there has been an increasing inclination to acquire English language among a large number of people all over the globe. The language that people learn and use as a foreign language is not as perfect and fluent as native speakers of that language are. A stimulating issue in learning this international language chiefly in English as Foreign Language (EFL) contexts is why some individuals can learn and use it quickly with no difficulty whereas other

---

people end in disappointment and cannot fulfill their language-learning mission. Therefore, EFL learners require gaining linguistic, structural, and communicative knowledge in the process of language learning. One of the most imperative issues that can influence learners' linguistic knowledge is vocabulary learning.

Vocabulary has a crucial part in the capability of the learners to transfer their opinions in a strong and brief method. It can be argued that the main portion of the corpus of a language is its vocabulary; the rest of it is related to the grammatical feature. Vocabulary knowledge means that a learner can take meaning and express his thoughts since according to Wilkins (1972), "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed". (p. 111-112). That is to say, by improving vocabulary knowledge EFL learners can learn the foreign language easily and interact with other people despite of lacking grammatical competence.

A lot of the EFL learners consider vocabulary learning very useful and at the same time very perplexing. Learners complain about forgetting the taught words. The EFL learners cannot recall the words, or their meanings, so they cannot use it when it is required. Another topic is orthography of word. It may be difficult to the learners to spell words correctly that have weird pronunciations or have analogous sounds to other recognized words. To memorize new vocabularies, most of the learners generally use the strategy of word repetition. It seems that it is the most common strategy learners know and the point is that this strategy does not work well, constantly. Thus, they have to administer different strategies in order to improve their vocabulary and language performance. However, deficiency in learning and using vocabulary can be related to learners' personal attributes and cognitive features like successful intelligence; this feature can enable learners to use their learnt vocabulary in the associated social contexts in a proper way.

In addition, learning English is viewed to be a multifaceted phenomenon affected by a mass of different factors. Affective and cognitive factors along with personal traits are among the most influential factors that can enhance or inhibit learning; they can have a negative or positive effect. In this regard, some studies focused on EFL learners' individual differences and personal attributes like successful intelligence role and its effect on learner's academic performance. Sternberg (1997) argued that successful intelligence is defined in terms of one's capability to succeed consistent with what one standards in life, within one's sociocultural context. Generally, successful intelligence is (1) identifying their strengths and making the most of them at the same time that they distinguish their faults and find ways to correct or recompense for them. (2) Using a cohesive group of the capabilities required achieving success in life; nevertheless, an individual defines it, within his or her sociocultural setting. Individuals are effectively gifted by virtue of successfully intelligent persons (3) adjust to, form, and select environments via (4) finding a balance in their use of creative, analytical, and practical capabilities (Sternberg, 1997).

The major problem of this study lies in the fact that despite of the importance of foreign language learning in Iran, most of the learners are not aware of the applicability of different strategies and their successful intelligence in improving their language performance. They need to know that making use of a proper strategy and intellectual

and cognitive abilities according to their capabilities can foster their learning. This is also true and more dominant in vocabulary learning, since by enriching their vocabulary data learners can understand wider range of discourses and communicate more efficiently in diverse social contexts. Following that, the present study attempted to investigate the relationship between EFL learners' vocabulary learning strategies, successful intelligence, and their language performance.

RESEARCH QUESTIONS AND HYPOTHESES

The present study attempts to provide answer to the following questions:

RQ1: Is there a significant relationship between learners' successful intelligence and its components and their language performance?

RQ2: Is there a significant relationship between learners' vocabulary learning strategy and its components and their language performance?

RQ3. Do EFL learners' vocabulary learning strategies and successful intelligence significantly predict their language performance?

Based on the proposed research questions the following hypotheses are drawn:

H01: There is not any significant relationship between learners' successful intelligence and its components and their language performance.

H02: There is not any significant relationship between learners' vocabulary learning strategy and its components and their language performance.

H03: The EFL learners' vocabulary learning strategies and successful intelligence do not significantly predict their language performance.

LITERATURE REVIEW

The Importance of Learning Strategies

Oxford (1990) argued that language-learning strategies are specific deeds that learners use to make learning more convenient, quicker, more pleasant, more self-directed, more operative, and more manageable to new circumstances. Application of learning strategies is very significant in learning vocabulary and rest on learners' efforts largely. Therefore, investigators identified several vocabulary learning strategies that learners can use. Strategies of vocabulary learning are divisions of language learning strategies that have fascinated great consideration since the late seventies. A vocabulary learning strategy is an exceptional instructional device and way of going about straight or obviously along with the independent word learning skills necessary to learn words individualistically.

According to Schmitt (1997), strategies of vocabulary learning are even more significant in second/foreign language learning with the growing essence of vocabulary achievement and its importance on great exposure to the language. For learning and using English proficiently, EFL learners have to develop appropriate learning strategies for long-term learning. Vocabulary learning strategies and their effects of academic performance as the main variables of the current study are a part of language learning strategies, which have gained considerable attention since the late seventies. Exploration

of these strategies can help learners in using procedures to expand their skills in a second or foreign language. Oxford (1997) argued that these strategies could be influenced by variables such as gender, motivation, attitude, learning styles etc. Moreover, the application of vocabulary learning strategies has been established to influence learners' performance in language learning (Sarani & Kafipour, 2008).

Classification of Vocabulary Learning Strategies

The need for English as a commonly-accepted medium of communication in the world has caused lots of attempts to learn this language. The components of the language has also been sought to be taught and learnt more effectively. Learning strategies, can facilitate the process. Some of these strategies are more focused on specific components of the language. Vocabulary Learning Strategies (VLS) is among such strategies. The underlying assumption of such strategies is to explore the way successful learners learn the specific component of a language to get better results (Alqahtan, 2015). Different scholars have classified vocabulary-learning strategies into different categories. In this section, we will introduce two of the most commonly known classifications.

Cohen's (1990) classification

One of the first classifications of vocabulary learning strategies was proposed by Cohen (1990). According to Cohen, there are three types of strategies: a) strategies of retention of words; b) strategies of vocabulary learning; and c) strategies of word practice.

Cohen listed some techniques associated with these strategies. For example, eleven techniques were proposed for vocabulary retention (remembering) strategies and three others for vocabulary learning strategies. However, as Cohen (1990) asserted, the list "is not a definitive list of all possible types of associations. Rather it is intended to be suggestive of some of the more popular approaches to generating association" (p. 26).

Strategies for remembering words that contain refined versions of the eleven types of association techniques, recognized in Cohen and Aphek (1980). Some of these associations has been concentrated from eleven to nine (Cohen, 1998, p. 223):

* Connecting the word to the sound of a word in the native language, to the sound of a word in the target language, or to the sound of a word in another language.

* Attending to the meaning of a part or several parts of the word.

* Noticing the structure of part or all of the word.

* Placing the word in the topic group to which it belongs.

* Visualizing the word in isolation or in a written context.

* Linking the word to the situation in which it appeared.

* Creating a mental image of the word.

* Associating some physical sensation with the word.

* Associating the word with a keyword.

Vocabulary learning strategies that include three strategies:

* Word analysis.

* Learning of cognates.

* Using a dictionary.

Strategies for practicing words that include three strategies:

* Grouping.

* Use of flashcards.

* Cumulative vocabulary study (explanation followed by planned repetition of the words in a variety of typical contexts).

Schmitt's (1997) Classification

Schmitt (1997) proposed one of the most common classifications of vocabulary learning strategies. The classification was done in accordance to the more general classification of learning strategies proposed by Oxford (1990). In her classification, she added a new category, namely *determination*, to the ones proposed by Oxford (i.e., memory, social, cognitive, and metacognitive strategies). She also assigned each of these categories into two broader classes of dissimilarity between *discovery* strategies (tactics for learning what an unknown word means) and *consolidation* strategies (tactics for both learning word meaning and integrating it into the words). Following are the description of these categories.

(1) Determination strategies: discovering a new word's meaning with no drawing on another person's expertise;

(2) Social strategies: interacting with other people to improve language learning;

(3) Memory strategies: connecting newly-learnt words to the existing word knowledge;

 (4) Cognitive strategies: manipulation or alteration of information about words to be learned; and

(5) Meta-cognitive strategies: focusing on the process of learning and evaluating it to find the best way to study.

There are other classifications proposed by other scholars. Nation (2001), for example, categorizes vocabulary learning strategies into three general classes of *Planning*, *Sources*, and *Processes*. However, the classification offered by Schmitt (1997) seems more comprehensive as Takac (2008) referred to it as "a typology of vocabulary learning strategies which is currently the most comprehensive typology of this subgroup of learning strategies" (p. 67).

The Concept of Successful Intelligence and its Definition

The theory of successful intelligence is one of a sequence of theories that pursue to understand intelligence in slightly wider standings than conventional theories; a theory mentioning that conventional intelligence does not adequately take into account rational and normal thinking (Ceci, 1996; Gardner, 2011). Recently, the notion of intelligence is not reflected as merely a cognitive variable; and psychologists recognize intelligence in

different means. Early psychologists regarded it as the capability of problem-solving. Though other scholars supposed it to be the capability to adjust and study founded on everyday experiences (Santrock, 2003).

Moreover, the concept of successful intelligence is introduced by R. J. Sternberg (1998), and it is one of the most significant issues touching educational engagement and motivation. Sternberg and Grigorenko (2007) argued that successful intelligence is a set of cohesive competences that is obligatory for attaining success in lifetime, and is however identified by the person in his/her socio-cultural setting. Individuals, who identify their powers and concurrently their flaws and correspondingly use them additionally and find methods to recompense for or correct them, are successfully intelligent. These persons become adjusted to the environment; similarly they form it and select it, completely by creating a balanced use of creative, analytical, and practical abilities.

Sternberg's (2000) conceptualization of Successful Intelligence is relatively new perception of intelligence. Generally, it is concerned with a person's capability to succeed in life. Precisely, Sternberg (2003) recognized Successful Intelligence as the capacity to flourish in life by capitalizing on one's powers and recompensing for one's faults, to adjust, to form, and choose situations using creative, analytical, and practical skills according to one's personal values and within one's socio-cultural setting. Sternberg (2003) suggested that one should emphasis more on successful intelligence, instead of concentrating on the classical notion of intelligence.

The term successful intelligence refers to one's capability to succeed according to what one values in life, within one's sociocultural context (Strenberg, 1997). In other word, being intelligent is roughly more than studying lessons. An intelligent person is a person who knows how to use the acquired knowledge under different situations (Strenberg, 2009). Successful intelligence also may be defined as the ability of harmonizing the needs to adapt to, shape and select surroundings in order to accomplish success within one's socio-cultural context. Successfully intelligent people will be aware of their strengths and weaknesses, they attempt to exploit their powers and to recompense for or correct their weaknesses (Strenberg, 1999).

The successful intelligence theory implies to a classroom teacher that he/she is conscious of the point that intelligence is predictive not simply of the school success and success but also life outside school (Hunt, 2008). Strenberg (2003) added that the term successful intelligence is defined as the ability to express, perform, and assess plans for the conduct of a life that is individually significant and satisfying.

According to Sak (2007), successful intelligence is consisted of some essential elements, which are described below:

1. The ability of achieving the goal with paying attention to personal standards in a individual's social- cultural texture.

2. People with successful intelligence are successfully intelligent.

3. There should be a skill balance for adapting to the environment, shaping and selection.

4. Tacit knowledge and wisdom, is the basis of practical intelligence.

5. Success will be created by balancing three different dimensions of intelligence; analytic, creative and practical.

Strenberg's Triarchic Theory of Successful Intelligence

Robert J, Strenberg is one of the most well-known theorists who claimed about the prominence of successful intelligence in the process of learning. According to his theory, a common set of processes inspires all features of problem solving; these are universal processes. For instance, even though the solutions to problems that are regarded intelligent in one culture might be unlike the solutions regarded to be intelligent in another culture, the necessity to describe problems and interpret strategies to solve these problems happens in any culture (Stemler, Grigorenko, Strenberg & Jarvin, 2009).

As Strenberg (2005) mentioned successful intelligence is the capability to attain one's objectives in life, given one's social-cultural framework; by capitalizing on powers and modifying or recompensing for flaws in order to adapt, form and choose surroundings via a combination of creative, analytical, and practical skills (p. 189) which are described as below:

- Analytical intelligence includes the conscious direction of our mental procedures to discover an attentive solution to a problem. It is the skill to overcome complications to find a solution. Being analytically intelligent is having the aptitude to solve problems efficiently (Hansen, 2014).

Analytical or componential intelligence mentions the higher order mental practices tangled in problem solving. Briefly, analytical capacity is essential in the course of analyzing, reasoning, evaluating, criticizing, and judging etc. Individuals who have great analytical intelligence are seen excelling on standard tests of academic potential. Analytical intelligence is tangled when the information processing mechanisms of intelligence are useful to judge, analyze, evaluate, or compare and contrast. It characteristically is involved when constituents are practical to relatively familiar types of problems where the judgments to be made are of abstract nature (Strenberg, 2005).

- Creative intelligence is the capacity to come up with new thoughts. With creative intelligence, an individual can produce original resolutions to solve problems (Hansen, 2014). Accordingly, creative intelligence is mainly dignified by problems evaluating how fine a person can cope with relative innovation. Consequently, it is significant to comprise in a battery of exams problems that are moderately innovative purely. Creative Intelligence is used during discovering, dealing with innovation, and with new circumstances using experiences and present abilities. It is related to producing new thoughts that are valuable. Success in life needs one not only to investigate one's own thoughts along with the thoughts of others, but also to create ideas (Sternberg, 2005).

- Practical intelligence is common sense and deals frequently with social circumstances. Some may discuss this feature of intelligence as street-smarts (Hansen, 2014). In this regard, Baum, Bird and Singh (2011), argued that Practical Intelligence permits defining the finest way to grasp the objective and is used in achievement. Therefore, practical

ability is required in adapting and shaping the changing situation. It makes an individual more adaptive and street smart. Those with great practical skill incline to progress valuable knowledge by doing and learning, not through witnessing or reading, since it is the consequence of carrying out examinations and hands on experience, which leads to precise learning. Practical Intelligence shares extraordinary resemblances with social and emotional intelligence with some delicate differences.

Practical intelligence includes individuals relating their abilities to the types of problems that challenge them in everyday life, such as on the job or in the home. Practical intelligence comprises applying the constituents of intelligence to experience to: a) adapt to, b) form, and, c) choose situations. Adaptation is involved when one modifies oneself to fir the environment. Forming is involved when one changes the environment to suit oneself. Moreover, selection is involved when one decides to seek out another environment that is a better match to one's requirements, capabilities, and wishes. People vary in their balance of adaptation, shaping, and selection, and in the competence with which they balance among the three conceivable sequences of action (Strenberg, 2005).

Theories of Language Performance

Walberg's theory of language performance postulates that psychological features of specific students and their immediate psychological surroundings affect educational consequences (behavioral, cognitive, and attitudinal) (Reynolds & Walberg, 1992). Additionally, Walberg's study recognized nine main variables that affect educational consequences as: motivation, student ability/prior achievement, age/developmental level, quantity of instruction, quality of instruction, classroom climate, peer group, home environment, and exposure to mass media outside of school (Walberg, Fraser, & Welch, 1986). Zeegers (2004) pointed out that The Grade Point Average (GPA) is a more normally applied measure of academic achievement, and therefore permits it to be associated with other investigations where measurement of language performance is one of the study variables. It is for the above reasons that this study has made use of the GPA as the measure of academic performance.

Reis, Hahn and Barkowski (1984) reported that language performance likewise has a significant effect on self-evaluation of students. To grasp the goal of excellence in the academic domain, and to enhance language performance to a maximum, a review of language performance and its implications for educationists and policy makers would be meaningful. Udoh (2005) preserved that academic performance of the learners is a phenomenon that has psychological, educational, and sociological connotation. Therefore, students' language performance cannot be totally accounted for by only one or two variables but a number of them. As learners' academic performance hinge on a number of variables, performance can be improved by recognizing and employing each of such variables.

Empirical Background of the Study

Alavinia and Farhady (2012) conducted a study to investigate the possible effects on vocabulary learning of the application of distinguished instruction (based on learners' multiple intelligences and learning styles). The learners participated in the pretest

phase(a vocabulary achievement test), and founded on the outcomes of multiple intelligences and learning styles questionnaires, which were directed later, the learners were separated into five distinct groups termed visual-spatial (V), linguistic-auditory (L), kinesthetic-bodily (K), interpersonal (Inter), and intrapersonal (Intra). As the results revealed a significant amount of difference was found between the performances of two groups and in favor of the experimental group. Moreover, the performance of dissimilar learners with different intelligences and learning style was shown to differ significantly.

Mashhadi Heidar and Hemayati (2017) compared vocabulary learning strategies used by marine engineering learners and Iranian EFL learners. They discovered the vocabulary learning strategies used by the classification of vocabulary learning strategies suggested by Schmitt (1997). Questionnaire of vocabulary learning strategies was applied to 30 EFL learners and 43 ME learners. Later, the strategies used by each group were determined and the two groups were associated with each other. It was found that both groups used determination strategies more commonly than social strategies for realizing a new word's meaning. The most repeatedly used discovery policy by both groups was found to be "bilingual dictionary". The second and third most recurrently used strategy for detection by EFL learners and ME students was found to be "monolingual dictionary" and "guess from textual context", respectively. It was also exposed that EFL learners used memory strategies more regularly than other strategies for combining the meaning of new words and ME students used cognitive strategies the most commonly. Both groups were found to use "verbal repetition" more frequently than all other consolidation strategies. The second most frequently used strategy by EFL learners was "use English language media" whilst for ME students they were "written repetition" and "word lists". The comparison of the strategy use by the participants in the two groups showed no significant difference.

Mysore and Vijayalaxmi (2018) evaluated the significance of successful intelligence in the academics of adolescents. This study reviewed the articles, which explain the importance of successful intelligence in academic and in adolescence years. The reviews clearly indicated that the components of successful intelligence influenced the adolescents language performance and learning, positively. The results of these studies revealed that successful intelligence could be used to teach different subjects in schools. Teaching for successful intelligence was valuable to all students with dissimilar learning patterns and it heightens efficacy and level of performance amongst students.

Mitana, et al (2018) explored successful intelligence in an article with the title of "assessment for successful intelligence: A paradigm shift in classroom practice". This article offered an analysis of Sternberg's theory of successful intelligence. This article concluded that Sternberg's theory of successful intelligence might be a better option for teachers to organize students to accomplish their goals in school and beyond school counting the world of work. The adjustment of Sternberg's theory of successful intelligence permits the classroom teacher to modify the classroom practice to suit students' life goals given their sociocultural situations. In addition, using the successful theory of intelligence in the classroom increases the multidimensionality of the assessment process and viewpoint. It similarly provides individual differences in terms

of life objectives, sociocultural contexts and capabilities. The use of multidimensional assessments raises justice of the assessment to the learners.

METHODOLOGY

Participants

The participants of the study included 63 male EFL learners who are at advanced proficiency level studying English at Goldis Language Institute. These learners were between 22 to 38 years old with different educational backgrounds and majors. They were selected through convenient sampling.

Instrumentation

The instrument of this study was Version 7 of the Strategy Inventory for Language Learning (SILL) prepared by Oxford (1990). This questionnaire includes two sections; in the first part, the participants were asked to provide background information; this self-designed demographic section of the questionnaire included age, gender, and educational background. In this questionnaire, the total numbers of measured strategies are 6, with a slightly varying (between 4 and 5) number of their sub-strategies, thus making a total of 27 items to be answered, rated on a 5-point Likert scale, as follows: (1) Always (2) Usually (3) Sometimes (4) Rarely (5) Never. These pointers indicate the learners' choice of sub-strategies falling under a particular strategy, thus finally indicating his/her choice of that particular strategy to learn a new vocabulary item. "Always" means 100% in terms of use; "Usually" means above 90% "Sometimes" means more than 60% in terms of use; "Rarely" would mean less than 40% use and "Never" stands for no, or almost no use at all. The minimum score is 0 and the maximum score is 135.

The second instrument was Successful Intelligence questionnaire (SII). This questionnaire was developed by Sternberg and Grigorenko (2002) to measure successful intelligence and it was translated and normalized in Iran by Negahban Salami, Farzad, and Sarami (2013). This 36-item questionnaire includes three subscales of analytical intelligence (questions 1 to 12), creative intelligence (questions 13 to 24) and practical intelligence (questions 25 to 36). Answering to the items is done based on 5-point Likert scale from 1 to 5 (1= very low, 5 =very much). Sternberg and Grigorenko (2002) reported the reliability of total questionnaire 0.74 and they described the sub-scales of analytical intelligence, creative intelligence, and practical intelligence 0.82, 0.68, and 0.71, respectively. They similarly established its content validity. Negahban Salami et al (1392) testified the reliability of questionnaire through internal consistency coefficient between 0.74 and 0.81, and they reported construct validity acceptable using confirmatory factor analysis. It is worth noting that the reliability of this study was estimated by Cronbach's alpha; the results were 0.78 for successful intelligence and 0.80 for SILL. Additionally, learner's final exam scores were considered as the rate of their language performance.

Procedure

Before conducting the actual research, there was a necessity to perform a pilot study; to this end the questionnaires were distributed among 30 EFL learners; these learners were at high intermediate level based on the placement test conducted by the institute. After

estimating the validity and reliability of the questionnaires, they were translated and prepared in order to investigate the relationship between vocabulary learning strategies, successful intelligence, and EFL learners' language performance. In order to assure the validity of the questionnaires and consider more cautiously the appropriateness of the items, the questionnaires were shown to teachers and experts to evaluate its validity. For estimating reliability of the questionnaires Cronbach's Alpha was administered. During the actual study, EFL learners completed the questionnaire. The obtained data were examined and analyzed by SPSS software version 24.

Data Analysis

As mentioned earlier the present study attempted to examine the relationship between EFL learners' vocabulary learning strategies and their successful intelligence, and language performance. Initially, Kolmogrov-Smirnov test was administered in order to ensure the normal distribution of the participants. Later, Pearson Correlation Coefficient was used to analyze the collected data. Since vocabulary learning strategies and successful intelligence questionnaires include different components, Multiple Regression was administered to see which of these components predict language performance more.

RESULTS

Research Questions and Hypotheses

RQ1: Is there a significant relationship between learners' successful intelligence and its components and their language performance?

This research question is considered in the form of the following null hypothesis:

H01: There is not any significant relationship between learners' successful intelligence and its components and their language performance.

Table 1. Correlation between EFL Learners' Successful Intelligence and its Components on their Language performance

Variables	Language performance			
	N	r	P	R2
Analytical ability	63	0.5	0.000	0.25
Creative ability	63	0.55	0.000	0.30
Practical ability	63	0.49	0.000	0.24
Successful intelligence	63	0.65	0.000	0.42

The results of Pearson Correlation Coefficient and Table 1 demonstrate that the significance value of the relationship between learners' analytic, creative and practical abilities and their language performance, is less than 0.05 ($p<0.05$); thus, there is an average direct significant relationship between these components and learners' language performance; Generally, the significance value of the relationship between learners' successful intelligence and their language performance, is less than 0.05 ($p<0.05$); thus, there is a strong direct significant relationship between these variables. In addition, the results of linear regression illustrate that learners' language performance can be predicted from their analytic ability for 25%, creative ability for 30%, practical ability for

24% and generally successful intelligence for 42%. Accordingly, the first null hypothesis is rejected, that is to say, there is a significant relationship between learners' successful intelligence and its components and their language performance.

RQ2: Is there a significant relationship between learners' SILL and its components and their language performance?

This research question is considered in the form of the following null hypothesis:

H02: There is not any significant relationship between learners' vocabulary learning strategy and its components and their language performance.

Table 2. Correlation between EFL learners' SILL and its Components on their Language performance

Variables	Language performance			
	N	r	P	R2
Memory	63	0.39	0.001	0.15
Cognitive	63	0.5	0.000	0.25
Compensation	63	0.38	0.002	0.14
Metacognitive	63	0.29	0.01	0.08
Affective	63	0.61	0.000	0.37
Social	63	0.407	0.001	0.16
SILL	63	0.64	0.000	0.40

The results of Pearson Correlation Coefficient and Table 2 demonstrate that the significance value of the relationship between learners' memory, compensation, metacognitive components and their language performance, is less than 0.05 ($p<0.05$); thus, there is a low direct significant relationship between these components with learners' language performance; the significance value of the relationship between learners' cognitive and social components and their language performance, is less than 0.05 ($p<0.05$); thus, there is an average direct significant relationship between these components and learners' language performance; Also, the significance level of the relationship between learners' affective component and generally SILL, is less than 0.05 ($p<0.05$); thus, there is a high direct significant relationship between this component and SILL and learners' language performance. In addition, the results of linear regression illustrate that learners' language performance can be predicted from their memory for 15%, cognitive for 25%, compensation for 14%, metacognitive for 8%, affective for 37%, social for 16% and generally from SILL for 40%. Accordingly, the findings rejected the null hypothesis, that is to say, there is a significant relationship between learners' vocabulary learning strategy and its components and their language performance.

RQ3. Do Iranian EFL learners' vocabulary learning strategies and successful intelligence significantly predict their language achievement?

This research question is presented in the form of the following null hypothesis:

H03: Iranian EFL learners' vocabulary learning strategies and successful intelligence do not significantly predict their language achievement

In order to predict EFL learners' language performance from their successful intelligence and SILL variables in general, multiple regression (Enter method) was administered. The following pre-assumptions were conducted and confirmed:

Table 3. Lack of Violation from Multicolinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	Successful intelligence	0.47	2.11
	SILL	0.47	2.11

Based on Table 3 the amount of Tolerance for successful intelligence is 0.47, and for SILL is 0.47. For these two variables, this amount is more than 0.1 and it can be argued that the assumption of multicolinearity is not violated. In addition, the amount of VIF for p successful intelligence is 2.11, and for SILL is 2.11 which are less than cut-off point of 10.

Table 4. Multiple Correlation Coefficient for Predicting Language performance

Model	R	R Square	Adjusted R Square
1	0.69	0.48	0.47

Table 4 shows that the total amount of multiple correlation coefficient for successful intelligence and SILL of the teachers is R=0.69 with R^Υ =0.48 and $\overline{R}^\Upsilon$ =0.47. That is to say, the above-mentioned variables predict language performance of the learners for 47% and 53% of the variance in language performance can be predicted with variable out of this study.

Table 5. Variance for Significance of Regression

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	1316.81	2	658.4	28.72	0.000
1	Residual	1375.37	60	22.92		
	Total	2692.18	62			

The shape of predicted regression is presented in Table 5, which is linear due to variance analysis test. The amount F test for assessing the significance of the effective variables on language performance of the learners against change equals 28.72 with significance level of p=0.000 that is less than 0.05 (p<0.05). Thus, the relationship between variables is one-way.

Table 6. Coefficients of Regression Variables by Enter

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	48.71	5.47		8.89	0.000
1	Successful intelligence	0.18	0.06	0.381	2.83	0.006
	SILL	0.23	0.08	0.372	2.77	0.007

According to Table 6 and non-standard beta coefficient it can be stated that α equals 48.71; in successful intelligence β =0.18 with p<0.05, and in SILL β =0.23 with p<0.05. That is to say, successful intelligence and SILL of learners' is significant and have significant share in predicting learners' language performance.

Finally, by omitting α through standardization the amounts of predicting variable, in successful intelligence β = 0.381 with p<0.05, and in SILL β = 0.372 with p<0.05. Therefore, successful intelligence and SILL of the learners' is significant and have significant share in predicting their language performance. The results of this research question rejected the null hypothesis and showed that successful intelligence and vocabulary learning strategies can significantly predict learners' language performance.

DISCUSSION

The current study aimed at looking deeply into the vocabulary learning strategies of EFL learners and their successful intelligence. Therefore, the present study attempted to investigate the relationship between learners' successful intelligence and vocabulary learning strategies and their language performance. The results obtained from this study revealed that EFL learners' successful intelligence and vocabulary learning strategy use have significant relationship with their language performance. The results of the first research questions demonstrated that there is an average direct significant relationship between learners' analytic, creative and practical abilities and their language performance, thus, there is a strong direct significant relationship between these variables. The findings of the second research question showed that there is a low direct significant relationship between learners' memory, compensation, metacognitive components and their language performance, thus, there is an average direct significant relationship between these components and learners' language performance. Finally, the findings related to third research question revealed that learners' successful intelligence and their use of vocabulary learning strategies can predict learners' language performance.

Based on the findings it can be argued that due to the significant relationship between successful intelligence, vocabulary learning strategy of the learners and their language performance, teachers are required to consider these variable in their teaching. In this study, successful intelligence is regarded in terms of three components including analytical, creative, and practical abilities. Among these components, the creative dimension predicted learners' performance more noticeably than other components. That is to say, learners who are successful in applying their intelligence in their learning, creatively and put their ideas and abilities in to practice are able to foster the learning and improve the academic life of their learners.

The findings of this study revealed the importance of learners' successful intelligence in development of learners' performance. In this regard, Mitana, Muwagga and Sempala (2018) explored successful intelligence in an article with the title of *assessment for successful intelligence: A paradigm shift in classroom practice*. This article offered an analysis of Sternberg's theory of successful intelligence. This article concluded that

Sternberg's theory of successful intelligence might be a better option for teachers to prepare students to achieve their goals in school and beyond school including the world of work. Also, Mysore and Vijayalaxmi (2018) evaluated the significance of successful intelligence in the academics of adolescents. This study reviewed the articles, which explain the importance of successful intelligence in academic and in adolescence years. The reviews clearly indicated that the components of successful intelligence influenced the adolescents' language performance and learning, positively. The results of these studies revealed that successful intelligence could be used to teach different subjects in schools.

In line with this study, Vimple and Sawhney (2017) investigated the relationship between language performance and successful intelligence of adolescents. Language performance of adolescents was also studied in relation to dimensions of successful intelligence-analytical intelligence, practical intelligence and creative intelligence. The results of the study are that there exists a significant relationship between language performance and successful intelligence of students. In compatible with this, Mandelman, Barbot and Grigorenko (2015) predicted the academic performance and trajectories from a measure of successful intelligence. The obtained results of their study proved that student's academic performance, by considering an appropriate successful intelligence measurement scale, is better and higher predictable.

Moreover, the present study examined the use of vocabulary learning strategies and the language performance of EFL learners. The obtained results revealed a significant relationship and showed that the affective strategy predicted language performance more and the metacognitive strategy predicts the achievement of the learners slightly. That is to say, learners in this study try to use affective strategies like using root of the words, guessing from text, and searching the Persian meaning of the word more frequently.

The findings also agreed with the study directed by Asgair and Mustapha (2011) on vocabulary learning strategies, some strategies like learning a word through reading a text, the application of various English-language media, the application of monolingual dictionary, and applying new English words in daily speech are related to memory strategies. In addition, strategies of determination and meta-cognitive were the most frequent strategies among the learners, and the learners were keen in using them.

The results of the current study are not in line with a study in Iran the inspected the relationship between EFL learners' beliefs about language learning, their language learning strategy use and their language proficiency using SILL, Abedini, Rahimi, and Zare-ee (2011) reported cognitive strategies as the most preferred strategies and metacognitive strategies as the least preferred one. The findings of this study are in partial contradiction with Yilmaz (2010) in whose study cognitive strategies were found to be the third most preferred strategies.

The findings of the current study are not in line with the study of Mashhadi Heidar and Hemayati (2017); they concluded that memory strategies and cognitive strategies were the most frequently used strategies by EFL learners and ME students for consolidation,

respectively and metacognitive strategies were the second most frequently used strategies. In other studies in Iran, memory, cognitive and metacognitive strategies were reported to be the most frequently used strategies by EFL learners and social strategy as the least used one (Ahour & Abdi, 2015; Salahshour et al., 2013; Abedini et al., 2011; Ghavamnia et al., 2011).

CONCLUSION

Based on the findings it can also be stated that successful intelligence is an influential variable in improving learners' language performance and it helps learners to use vocabulary learning strategies properly in order to develop their language performance. Learners who have high degree of successful intelligence are able to act analytically and provide creative methods and thoughts in learning a foreign language. They are also capable of reproducing and updating their knowledge. Having mere intelligence and certain abilities is not enough for life success. People are required to put their talents into action and exploit their hidden capacities. In this process, the ability to administer learning strategies in learning foreign language vocabularies can guide the learners in using the learnt words communicatively.

In conclusion, it can be argued that the link between learners' successful intelligence and vocabulary learning strategy use and their language performance shows that, in the context of language teaching and learning, it should be seriously taken into account. Language learners can be instructed about different strategies and cognitive styles earlier to starting to learn a language; hence, owing to their preferences, the most suitable language learning strategies are to be exploited for them. Furthermore, although the learners use a diversity of language learning tactics, and they desire to administer particular kinds of strategies based on language learning contaxt and the complexity of the words, it can be helpful for language teachers to predict their cognitive types and realize their characteristics. Therefore, it is suggested that EFL learners should be exposed to a complete inventory of vocabulary learning strategies and their successful intelligence to be able to use the strategies they prefer depending on their needs and characteristics.

REFERENCE

Alavinia, P., & Farhady, S. (2012). Using differentiated instruction to teach vocabulary in mixed ability classes with a focus on multiple intelligences and learning styles. *International Journal of Applied, 2*(4), 72-82.

Alqahtan, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education, 3*(3), 21-34.

Baum, R.J., Bird, B.J., & Singh, S. (2011). The practical intelligence of entrepreneurs: Antecedents and a link with new venture growth. *Personal Psychology, 64*(2), 397-425.

Ceci, S. J. (1996). *On Intelligence . . . More or Less: A Bioecological Treatise on Intellectual Development*. Cambridge: Harvard University Press.

Cohen, A. D. (1990). *Language learning: Insight for learners, teachers, and researchers*. Boston: Heinle & Heinle.

Cohen, A. D. (1998). *Strategies in learning and using a second language*. London: Longman.

Cohen, A. D. (2014). *Strategies in learning and using a second language*. London and New York: Routledge.

Cohen, A., & Aphek, E. (1980). Retention of second-language vocabulary over time: investigating the role of mnemonic associations. *System, 8*, 221-235.

Derk, R. (1974). *Educational Technology in Curriculum Development*. New York: Harper and Row Publications.

Gardner, H. (2011). *Frames of Mind: The Theory of Multiple Intelligences*. New York, NY, USA: Basic Books.

Hansen, C. (2014). Key Study Skills Tools to Achieve Academic Success. Retrieved 10 July from http://www.mycollegesuccessstory.com/academic-success-tools/successful-intelligence. html .

Hunt, E. (2008). Applying the theory of Successful Intelligence to education - The good, the bad and the ogre. *Perspectives of Psychological Science, 3*(6), 509 - 515.

Mandelman, S. D., Barbot, B., & Grigorenko, E. L. (2015). Predicting academic performance and trajectories from a measure of successful intelligence. *Learning and Individual Differences, 2*(3),34-52.

Mashhadi Heidar, D., & Hemayati, M. (2017). A comparative study of vocabulary learning strategies used by marine engineering students and Iranian EFL learners*. RELP, 5*(1), 61-72.

Mitana, J.M.V., Muwagga, A.M., & Ssempala, C. (2018). Assessment for Successful Intelligence: A Paradigm Shift in Classroom Practice. *International Journal of Educational Research Review, 4*(1), 106-115.

Mysore, A.H., & Vijayalaxmi, D. (2018). Significance of successful intelligence in the academics of adolescents: a literature review. *International Journal of Home Science, 4*(1), 13-16.

NegahbanSalami, M. (2013). *The effectiveness of successful intelligence on critical thinking, self-efficacy and academic performance of students*. Ph.D thesis of Kharazmi university, Tehran.

Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston, MA: Heinle and Heinle Publishers.

Oxford, R. L. (1997). Cooperative learning, collaborative learning, and interaction: Three communicative strands in the language classroom. *The Modern Language Journal*, 81, 443-456.

Oxford, R. (2003). Language Learning Styles and Strategies. Retrieved from http://web.ntpu.edu.tw/~language/workshop/read2.pdf.

Reis, G., Hahn, M., & Barkowski, D. (1984). The Development of Achievement related level of Aspiration and Self-evaluation in Primary school. *Psychologies in Erziehung and Unterricht, 31*(3),188-196.

Reynolds, A. R., & Walberg, H. J. (1992). A process model of mathematics achievement and attitude. *Journal of Research in Mathematics, 23*, 306-328.

Sak, U. (2007). *Giftedness and the Turkish culture*. In S. N. Phillipson & M. McCann (Eds.), Conceptions.

Santrock, J. W. (2003). *Adolesence.* New York: McGraw-Hill Company.

Sarani, A. & Kafipour, R. (2008). The study of language learning strategies use by Turkish and Kurdish EFL university students. *Language Forum*, *34*(2), 173-188.

Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 199-227). Cambridge: Cambridge
University Press.

Stemler, S., Grigorenko, E., Strenberg, R., & Jarvin, L. (2009). Using the theory of successful intelligence as a framework for developing assessments in AP physics. *Contemporary Educational Psychology, 34*, 195-209.

Sternberg, R. J. (2005). The theory of successful intelligence. Interamerican Journal of Psychology, 39(2), 189-202.

Sternberg, R. J. (2003). Our research program validating the triarchic theory of successful intelligence: reply to Gottfredson. *Intelligence, 31*, 399-413.

Sternberg, R.J. (2000). *Handbook of intelligence*. New York: Cambridge University Press.

Sternberg, R. J. (1998). Abilities as forms of developing expertise. *Educational Researcher, 27*(3), 11-20.

Sternberg, R. J. (1997). Successful intelligence: How practical and creative intelligence determine success in life. New York: Plume.

Sternberg, R. J., & Grigorenko, E. L. (2007). *Teaching for successful intelligence*. Thousand Oaks, CA: Corwin Press.

Udoh E. J. (2005). Demand and Control of Credit Form Informal Sources by Rice Producing Female of Akwa Ibom State, Nigeria. *Journal of Agriculture and Social Sciences, 1*(2) Pp.152-155.

Vimple, A., & Sawhney, S. (2017). Relationship between Language performance and Successful Intelligence of Adolescents. Educational Quest: An Int. J. of Education and Applied Social Science, 8(3), 799-805.

Walberg, H. J., Fraser, B. J., & Welch, W. W. (1986). A test of a model of educational productivity among senior high school students. *Journal of Educational Research, 79*, 133-139.

Wilkins, D. (1972). *Linguistics in language teaching*. Cambridge: CPU.

Yilmaz, C. (2010). The relationship between language learning strategies, gender, proficiency and self-efficacy beliefs: a study of ELT learners in Turkey. *Procedia Social and Behavioral Sciences, 2*, 682-687.

Zeegers, P. (2004). Student learning in higher education: a path analysis of language performance in science. *Higher Education Research & Development, 23*(1), 35-56.