

# Vocabulary Learning Strategies Used by Extroverted and Introverted Iranian EFL Students

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## Abstract

The present study is a research which explores the relationship between introversion/extroversion and the use of vocabulary learning strategies. The participants were 80 male and female EFL students of University of Sistan and Baluchestan who had studied EFL at the university for at least two years and were randomly selected. The participants were selected after excluding those who got L scores of above 4 or 5 from the EPI personality inventory. They were then divided into two groups of introverts and extroverts based on the Eysenck Personality Inventory (EPI). The independent sample t-test was run to examine if there is a significant relationship between the students' personality type (intro/extra) and their use of vocabulary learning strategies. It was found that there is no difference between introverts and extroverts in the overall use of vocabulary learning strategies as well as in the use of cognitive, memory, and social strategies. However, a significant difference was found between these two groups in the use of determination strategies. It was also found that of the four categories, determination strategies were the most frequently used category by all the participants. The results also revealed that extroverts used vocabulary learning strategies more frequently than their introverted counterparts.

**Keywords:** Introversion, Extroversion, Vocabulary Learning Strategies (VLSs), EFL Learners, Eysenck Personality Inventory (EPI)

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## **1. Introduction**

Vocabulary is considered as a central part of learning a second language (Lotfi, 2007). To learn English as a second or foreign language, one needs to acquire a large portion of vocabulary (Pawley & Syder, 1983; cited in Ranalli, 2003). Accordingly, there have been numerous approaches and methods introduced in this field (Hatch & Brown, 1995; cited in Lotfi, 2007). Teaching vocabulary should not be thought of as teaching specific words. Rather, it should be achieved through using different strategies (Hulstijn, 1993; cited in Lotfi, 2007). A learning strategy is a series of actions used by learners to help them acquire a task more easily (Gu, 2003). Vocabulary learning strategies are considered as one part of language learning strategies (Nation, 2001). Language learning strategies encourage self-direction for learners in which the students make use of the strategies they need most (Lotfi, 2007).

### **1.1. Research into Learning Words in Context vs. Learning Words Out of Context**

There are two main approaches to learning vocabulary in a second language: learning words in context and learning words out of context. Many language professionals believe in the superiority of contextualized vocabulary learning to learning words in lists (Nielsen, 2003). According to Oxford and Scarcella (1994; cited in Nielsen, 2003), while decontextualized learning may help students memorize vocabulary for tests, students are likely to rapidly forget words memorized from lists. There is ample evidence to children's acquisition of a great deal of their L1 vocabulary through listening and in context (Nagy, Anderson, & Herman, 1987; Nagy & Herman, 1987; Nagy, Herman, & Anderson, 1985; cited in Gu, 2003). However, learning words in context seems

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to be a strategy useful for those learners who are already at advanced levels of second language acquisition (Gu, 2003).

The studies done in this field seem to be in favor of decontextualized vocabulary learning at the early stages of learning a second language and advocating context-based vocabulary learning at the next stages (e.g., Coady, 1997b; Meara, 1997; Nation & Newton, 1997; cited in Nielson, 2003). According to Parry (1991, 1993, 1997; cited in Gu, 2003) a combination of incidental and intentional learning of vocabulary is required in the process of second language acquisition.

## **1.2. Taxonomies of Vocabulary Learning Strategies**

Second and foreign language researchers have made different classifications of vocabulary learning among which we can refer to the taxonomies proposed by Gu and Johnson (1996; cited in Lotfi, 2007), and Nation (2001) which are briefly discussed below and that of Schmitt (1977; cited in Lotfi, 2007) which will be discussed in more detail since it is the one based on which the questionnaire used in this study has been designed.

Gu and Johnson list (1996; cited in Lotfi, 2007) second language vocabulary learning strategies as metacognitive, cognitive, memory and activation strategies. Metacognitive strategies consist of selective attention and self-initiation strategies. Cognitive strategies entail guessing strategies, use of dictionaries and note-taking strategies. Memory strategies are classified into rehearsal and encoding categories. And activation strategies are those strategies which help the learner use new words in different contexts.

The strategies in Nation's taxonomy (Nation, 2001) are divided into three general classes of 'planning', 'source' and 'processes'. Planning involves deciding on where, how and how often to focus attention on the vocabulary

item. Source concerns getting information about the word. And finally process includes establishing word knowledge through noticing, retrieving and generating strategies.

According to Schmitt, vocabulary leaning strategies are categorized into two groups: The ones to determine the meaning of new words when encountered for the first time which consist of determination and social strategies, and the ones to consolidate meaning when encountered again which consist of cognitive, metacognitive, memory and social strategies (p. 205; cited in Lotfi, 2007). In determination strategies, learners use the guessing technique to discover the meaning of the words in the context. In social strategies learners ask for others' help to discover the meaning of the new words. Learners also need to use a variety of social, memory, cognitive and metacognitive strategies to consolidate their vocabulary knowledge. An instance of the use of social strategies for consolidating is cooperative group learning through which learners practice the meaning of new words in a group. Memory strategies involve relating the word with some previously learned knowledge. In cognitive strategies learners try to learn the new words through repetition and using mechanical means such as word lists, flash cards, and vocabulary notebooks. Finally, through the use of metacognitive strategies learners control and evaluate their own learning (Schmitt, p. 216; cited in Lotfi, 2007).

### **1.3. Factors Influencing the Use of Vocabulary Learning Strategies**

There are a lot of factors which influence the use of vocabulary learning strategies by learners some of which we are going to discuss below.

In one study done by Riazi, Sadighi, and Zare (2005) it turned out that there was a positive relationship between students' proficiency level and their use of vocabulary learning strategies, especially those strategies that were

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cognitively deeper.

Age is also another factor affecting students' use of vocabulary learning strategies. In one study by Riazi, Sadighi, and Zare (2005) it was found that as the age of the students increased, their use of cognitive strategies increased as well.

Gender is also a factor affecting the learners' choice vocabulary learning strategies (Uster, 2008). In one study conducted by Goh and Foong (1997; cited in Uster, 2008), it was seen that female students tended to use strategies more frequently than males, especially in determination and affective strategies. In another study, Uster (2008) females were found to use determination, social, and cognitive strategies more than males while males reported to use memory strategies more than females. Females also made more use of vocabulary learning strategies.

#### **1.4. Affective Factors**

Affective factors play a larger role than cognitive factors in developing second/foreign language skills. Students' willingness toward learning determines the amount they learn (Chastain, 1988; cited in Razmjoo & Shaban, 2008).

So far many studies have been done on the differences between introverts and extroverts in learning a second language. Great differences have been found between these two personality types in learning ESL which are going to be discussed in detail here. First we will provide a definition of extroverts and introverts in general and then we will discuss the differences between these two groups in learning a second language.

#### **1.4.1. Introversion/Extroversion**

Extroverts tend to interact with people and enjoy group work (Oxford & Anderson, 1995; cited in Razmjoo & Shaban, 2008). They get energy from other people and are usually the ones who never want to leave the party (Adamopoulos, 2004).

On the other hand, introverts tend to spend their time alone and enjoy group activities with a few intimate friends. Introverted personality types are known to be more cautious, conservative and serious than extroverts (Adamopoulos, 2004).

The following table which is adapted from Widdoson (1979; cited in Razmjoo & Shaban, 2008) shows the differences between introverts and extroverts.

Criteria	Extroversion	Introversion
General	Sociable	Quiet
Attitude to people	Has many friends	Doesn't make friends easily. Prefers books to friends
Attitude to study	Dislikes studying by himself	Likes studying by himself
Decision making	Makes quick decisions and takes chances	Plans things carefully in advance

#### **1.4.2. The Differences between Extroverts and Introverts in Learning a Second Language**

Based on the studies, introversion or extroversion has no significant impact on second language learning in the classroom (Adamopoulos, 2004). According to a study done by Wakamoto (2000, cited in Adamopolas, 2004) it was found that unlike their introverted counterparts, extroverts will ask for clarification more

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readily, thus receiving the input essential for developing an interlanguage (Adamopoulos, 2004).

Studies show that there is a high correlation between extroversion and oral proficiency as extroverts talk more, louder and more repetitively. They have higher speech rates, shorter silences, a higher verbal output, a lower type ratio and a less formal language while introverts use a broader vocabulary (Scherer, 1979; Furnham, 1990; Gill & Ovberlander 2002; cited in Mairesse, Walker, Mehl, & Moor, 2007). Extroverts also use more positive emotion words and show more agreement and compliments than introverts (Pennebaker & King, 1999; cited in Mairesse, Walker, Mehl, & Moor, 2007).

While introverts prefer tasks in which they are assigned to memorize vocabulary and deal with grammatical structures, extroverts seem to be in favor of communicative language learning tasks (Adamopoulos, 2004). Extraversion is also significantly correlated with contextuality which is based on high reliance on shared knowledge between conversational partners, as opposed to formality (Heylighen & Dewaele, 2002; cited in Mairesse, Walker, Mehl, & Moor, 2007).

However, no significant difference has been found between extroverts and introverts in terms of achievement in second language acquisition in classroom environments. In fact, introverts seem to be better than their extroverted counterparts in classroom learning (Adamopoulos, 2004).

It is not clear then, that extroversion or introversion helps or hinders the process of second language acquisition (Brown, 1941). In one study done by Busch (1982; cited in Brown, 1941) introverts were significantly better than extroverts in their pronunciation. However, extroversion has turned out to be a factor in the development of general oral communicative competence (Dewaele & Furnham, 1998; cited in Brown, 1941), which requires face to face interaction, but not in listening, reading and writing (Brown, 1941).

### **1.5. Statement of the Problem**

Based on the studies done on the field of foreign language learning, introverted learners use strategies which are different from those employed by their extroverted counterparts. However, no particular research has ever been done on the use of vocabulary learning strategies by extroverts and introverts. Thus this study aims at investigating the possible difference between introverted and extroverted students and the use of vocabulary learning strategies by Iranian EFL students currently studying at the University of Sistan and Baluchestan.

### **1.6. Objectives of the Study**

This study looks into the role personality traits of introversion/extroversion play in the use of vocabulary learning strategies by Iranian EFL learners of University of Sistan and Baluchestan. The following are the objectives the study looks for:

The first objective is to find the most frequently used category of vocabulary learning strategies by Iranian EFL learners studying at University of Sistan and Baluchestan.

The second objective is to find out if there is a significant difference between introversion/extroversion and the use of vocabulary learning strategies by Iranian EFL learners studying at University of Sistan and Baluchestan.

### **1.7. Research Questions**

Regarding the objectives of the study the following research questions are proposed:

1. What is the most frequently used category of vocabulary learning strategies by Iranian EFL students?

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2. Is there a significant difference between Iranian EFL extroverted and introverted learners in the use of vocabulary learning strategies?

## **1.8. Significance of the Study**

It has always been assumed that personality plays an important role in learning a second language. Many studies have been done on the difference between extroverts and introverts in the use of language learning strategies. However, no particular research has been done on the difference between extroverts and introverts in the use of vocabulary learning strategies. Thus, the present study finds significance as it seeks to find out if learners' personality trait of extroversion/introversion affects their use of vocabulary learning strategies. In this perspective, therefore, the results of the present study can shed more light on academic improvement of second language learners. The findings can also help parents develop certain personality skills in their children in order to help them learn a second language better.

## **2. Methodology**

This section introduces the participants, research instruments and data analysis methods used in the research study.

### **2.1. Participants**

Eighty students majoring in EFL from University of Sistan and Baluchestan who had studied EFL for at least 4 years in high school and 2 years at the university participated in this study. The participants were selected after excluding those who got L scores of above 4 or 5 from the Eysenck Personality

Inventory. There were both male and female students within the range of 20 to 25 years of age.

## **2.2. Instruments**

The instruments made use of are as follows:

1. Eysenck Personality Inventory (EPI) which is a scale including 57 questions to measure the individual's impulsivity and sociability. It is applicable to participants over 16 years of age (Razmjoo & Shaban, 2008). According to Azarkhosh (2000, pp. 151-159; cited in Razmjoo & Shaban, 2008), in a research carried out by Mohammady (1998; cited in Razmjoo & Shaban, 2008), concerning the validation of the abridged form of the EPI (the 57 item one), the distribution of the scores for the three criteria was reported to be normal.
2. The vocabulary learning strategy questionnaire which was adapted from (Cheung, 2004; cited in Hong Lip, 2009) and based on (Schmitt's 2004; cited in Hong Lip, 2009) taxonomy of VLS. It included the following: five statements on cognitive strategies (COG), ten statements on memory strategies (MEM), nine statements on determination strategies (DET) and three social strategies (SOC) in vocabulary learning. The selections of vocabulary learning strategies were measured by 5-point Likert scales (1=Never to 5=Always)

## **2.3. Data Collection and Procedure**

To gather data, students were given the Eysenck Personality Inventory (IPI). Clear instructions were provided and the students were requested to give utmost care and attention while being as impulsive in performing the task as

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possible. It took even the most reflective ones 15 minutes to complete the EPI. At the same time they were also given a VLS questionnaire according to which they were asked to mark the vocabulary learning strategies based on 5-points Likert scales (1=Never to 5=Always). It didn't take the subjects more than 15 minutes to complete the questionnaire. Based on the results of the Eysenck Personality Inventory, the participants were divided in two groups of introverts (30 participants) and extroverts (50 participants).

Descriptive statistics including means and standard deviations were computed to summarize the students' responses to the Eysenck Personality Inventory and vocabulary learning strategy questionnaire items to examine their personality type in regard with introversion/extroversion and their use of vocabulary learning strategies. The independent sample t-test was also conducted to examine if there was a significant relationship between the students' personality type (intro/extra) and their use of vocabulary learning strategies.

## **3. Results and Findings**

This section will report on the results of the analysis of the two questionnaires and attempts to answer the two research questions set out above.

### **3.1. Overall Use of Vocabulary Learning Strategies**

Table 1 shows the means and standard deviations of overall use of vocabulary learning strategies in all the participants as well as in introverts and extroverts.

**Table 1. Overall Use of Vocabulary Learning Strategies**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>All subjects</b>	80	3.3167	0.44514
<b>Extroverts</b>	50	3.3844	.37405
<b>Introverts</b>	30	3.2037	.53129

According to table 1, the mean of the overall use of vocabulary learning strategies by all the participants, regardless of introversion or extroversion, was found to be 3.31. Based on the findings of this table, the means of the overall use of vocabulary learning strategies by introverts and extroverts were found to be 3.20 and 3.38 respectively, implying the fact that extroverts use vocabulary learning strategies more frequently than their introverted counterparts.

### **3.2. Frequency of the Use of Vocabulary Learning Strategies in All the Participants**

Table 2 shows the means and standard deviations of the four categories of vocabulary learning strategies, as rated by the participants.

**Table 2. Frequency of the Use of the Four Categories of Vocabulary Learning Strategies Among All the Participants (N=80)**

<b>Strategy</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Cognitive</b>	3.1825	0.65849
<b>Memory</b>	3.2225	0.55369
<b>Determination</b>	3.5236	0.54093
<b>Social</b>	3.2333	0.88494

Based on the findings of table 2, the mean of the participants' use of determination strategies was found to be 3.52 which is larger than the mean of the three other categories, thus implying the fact that they used determination

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strategies more frequently than the other ones. It also shows that the mean of the participants' use of cognitive strategies was found to be 3.18, which is smaller than the means of the three other categories, implying the fact that they used cognitive strategies less frequently than the other ones.

### **3.3. Frequency of the Use of Vocabulary Learning Strategies in Extroverts**

Table 3 shows the means and standard deviations of the four categories of vocabulary learning strategies, as rated by the extroverted learners.

**Table 3. Rank Order of the Four Categories of Vocabulary Learning Strategies Among the Extroverts (N=50)**

Strategy	Mean	Std. Deviation
Cognitive	3.1960	.61742
Memory	3.2940	.47484
Determination	3.6311	.49152
Social	3.2600	.89921

According to table 3, determination strategies (mean= 3.63; SD=0.49) are determined as the most frequently used strategies by the extroverted learners followed by memory (mean=3.29; SD=0.47), and social strategies (mean: 3.26; SD=0.89) respectively. Furthermore, cognitive strategies are determined as the least frequently used strategies by extroverts with mean score of 3.19 and standard deviation of 0.61.

### **3.4. Frequency of the Use of Vocabulary Learning Strategies in Introverts**

Table 4 shows the means and standard deviations of the four categories of vocabulary learning strategies, as rated by the introverted learners.

**Table 4. Rank Order of the Four Categories of Vocabulary Learning Strategies Among the Introverts (N=30)**

<b>Strategy</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Cognitive</b>	3.1600	.73231
<b>Memory</b>	3.1033	.65626
<b>Determination</b>	3.3444	.57945
<b>Social</b>	3.1889	.87399

According to table 4, determination strategies (mean= 3.34; SD=0.57) are determined as the most frequently used strategies by the introverted learners followed by social (mean=3.18; SD=0.87), and cognitive strategies (mean: 3.16; SD=0.73) respectively. Furthermore, memory strategies are determined as the least frequently used strategies by introverts with mean score of 3.10 and standard deviation of 0.65.

### **3.5. Sample T-test for Introversion/Extroversion and the Overall Use of Vocabulary Learning Strategies**

In order to investigate the relationship between the participants' overall use of vocabulary learning strategies and their personality traits, the mean score of the overall use of vocabulary learning strategies among introverts and extroverts, being 3.20 and 3.38 respectively, is calculated. Then, the significance of the difference observed between the means is investigated through the application of the independent sample t-test. As represented in table 5, the computed

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significance to compare the mean score of the two personality traits equals to 0.079. This magnitude is much greater than the significance level set for the study (0.05). This suggests the fact that there is no statistical difference between the two groups concerning their overall use of vocabulary learning strategies. Thus, it can be concluded that both groups are at the same level in the overall use of vocabulary learning strategies.

**Table 5. The Independent Sample T-test for Introversion/Extroversion and the Overall Use of Vocabulary Learning Strategies**

Variables	N	Mean	Std. Deviation	t	Sig.
<b>Introversion</b>	30	3.2037	.53129	-1.782	.079
<b>Extroversion</b>	50	3.3844	.37405		

\*Significant at .05

### **3.6. Sample T-test for Introversion/Extroversion and the Use of Cognitive Vocabulary Learning Strategies**

In order for the study to find out if there was any difference between introverted and extroverted EFL learners studying at University of Sistan and Baluchestan, the mean score of the use of cognitive vocabulary learning strategies among introverts and extroverts, being 3.16 and 3.19 respectively, were compared through the use of the independent sample t-test.. Table 6 displays that the significance computed by the t-test analysis is 0.815. This magnitude is much greater than the significance level set for the study (0.05). This suggests the fact that there is no statistical difference between the two groups concerning their use of cognitive vocabulary learning strategies. Thus, it can be concluded that both groups are at the same level in the use of cognitive vocabulary learning strategies.

**Table 6. The Independent Sample T-test for Introversion/Extroversion and the Use of Cognitive Vocabulary Learning Strategies**

Variables	N	Mean	Std. Deviation	t	Sig.
<b>Introversion</b>	30	3.1600	0.73231	-.235	0.815
<b>Extroversion</b>	50	3.1960	0.61742		

\*Significant at .05

### **3.7. Sample T-test for Introversion/Extroversion and the Use of Determination Vocabulary Learning Strategies**

In order for the study to find out if there was any difference between introverted and extroverted EFL learners, the mean score of the use of determination vocabulary learning strategies among introverts and extroverts, being 3.34 and 3.63 respectively, were compared through the use of the independent sample t-test. As shown in table 7, the significance computed by the t-test analysis is 0.021, which is lower than 0.05 (the significance level set for this study). This suggests the fact that there is a significant difference between introverts and extroverts in the use of determination vocabulary learning strategies.

**Table 7. The Independent Sample T-test for Introversion/Extroversion and the Use of Determination Vocabulary Learning Strategies**

Variables	N	Mean	Std. Deviation	t	Sig.
<b>Introversion</b>	30	3.3444	0.57945	-2.360	0.021
<b>Extroversion</b>	50	3.6311	0.49152		

\*Significant at .05

### **3.8. Sample T-test for Introversion/Extroversion and the Use of Memory Vocabulary Learning Strategies**

In order to investigate the relationship between the participants' use of memory vocabulary learning strategies and their personality traits, the mean score of the memory use of vocabulary learning strategies among introverts and extroverts, being 3.10 and 3.29 respectively, was calculated. Then, the significance of the difference observed between the means was investigated through the application of the independent sample t-test. According to table 8, the computed significance to compare the mean score of the two personality traits equals to 0.137 which is much greater than the significance level set for the study (0.05). This suggests the fact that there is no statistical difference between the two groups concerning their use of memory vocabulary learning strategies. Thus, it can be concluded that both groups use memory vocabulary learning strategies in the same way.

**Table 8. The Independent Sample T-test for Introversion/Extroversion and the Use of Memory Vocabulary Learning Strategies**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t</b>	<b>Sig.</b>
<b>Introversion</b>	30	3.1033	0.65626	-1.503	0.137
<b>Extroversion</b>	50	3.2940	0.47484		

\*Significant at .05

### **3.9. Sample T-test for Introversion/Extroversion and the Use of Social Vocabulary Learning Strategies**

In order for the study to find out if there was any difference between introverted and extroverted EFL learners, the mean score of the use of social vocabulary learning strategies among introverts and extroverts, being 3.18 and

3.26 respectively, were compared through the use of the independent sample t-test. Table 9 displays that the significance computed by the t-test analysis is 0.730. This magnitude is much greater than the significance level set for the study (0.05). This suggests the fact that there is no statistical difference between the two groups concerning their use of social vocabulary learning strategies. Thus, it can be concluded that both groups are at the same level in the use of social vocabulary learning strategies.

**Table 9. The Independent Sample T-test for Introversion/Extroversion and the Use of Social Vocabulary Learning Strategies**

Variables	N	Mean	Std. Deviation	t	Sig.
Introversion	30	3.1889	0.87399	-.346	0.730
Extroversion	50	3.2600	0.89921		

\*Significant at .05

#### 4. Conclusion

As seen in the results section, the participants of the study, regardless of introversion or extroversion, usually made use of vocabulary learning strategies in learning new words. It was also found that introverts and extroverts used vocabulary learning strategies almost equally. However, extroverts used these strategies more frequently than their introverted counterparts.

Determination strategies were found to be the most frequently used strategies by the participants. On the other hand, cognitive strategies were used less frequently than the other categories.

It was also found out that determination strategies were used most frequently by extroverts. It also turned out that extroverts use memory, social and cognitive strategies in the next ranks respectively. In the case of introverts, determination strategies were also used more frequently than the other three

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categories by them, as they were in the case of extroverts. It also turned out that introverts use socio, cognitive and memory strategies in the next ranks respectively.

Based on the results of the study, there is no significant difference between introverts and extroverts in the overall use of vocabulary learning strategies. However, extroverts use these strategies a bit more frequently than their introverted counterparts.

Based on the findings, there is no significant difference between introverts and extroverts in the use of cognitive vocabulary learning strategies. However, the results show that extroverts use these strategies to some extent more frequently than their introverted counterparts.

It was also found out that there is a significant difference between introverts and extroverts in the use of determination strategies. The results also show that extroverts use these strategies more frequently than their introverted counterparts.

No significant difference was found between introverts and extroverts in the use of memory strategies. However, extroverts have been found to use these strategies more frequently than their introverted counterparts.

And finally, it was found out that there is no difference between introverts and extroverts in the use of social strategies. However, the results show that extroverts use these strategies more frequently than their introverted counterparts.

Based on the findings mentioned above there is a significant difference between introverts and extroverts in the overall use of vocabulary learning strategies. There is also no significant difference between these two groups in the use of the three categories of cognitive, memory and social vocabulary learning strategies. But a significant difference has been found between

introverts and extroverts in the use of determination strategies. Based on these findings, it can also be concluded that extroverts use vocabulary learning strategies more frequently than their introverted counterparts.

The results of this study can help foreign language teachers determine which vocabulary learning strategies are more appropriate for students with different personality traits of introversion and extroversion. Further research is also required to be done on the effect of extroversion/introversion on language skills such as reading and writing as well as language components such as grammar.

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