



Language Learning Strategy Use of University Preparatory School Students

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ABSTRACT This descriptive quantitative study intended to investigate (1) the language learning strategies used by learners of English as a foreign language, (2) to find out the difference in their strategy use and (3) the correlation of these strategies with students' academic achievement at university preparatory school situated in the western part of Turkey between 445 (168 male, 277 female) students participated in the study. An inventory about language learning strategies was used to gather data and all tests were run with SPSS 16.0. The results showed that students mostly use social and metacognitive strategies. Moreover, both successful and unsuccessful students use these two strategies while learning English as a foreign language. Lastly, while the correlation rate is high between metacognitive and social strategies regarding academic achievement, it is low between social and memory strategies.

INTRODUCTION

The field of foreign language teaching and learning has undergone a number of important changes over the past few decades (Pica 2000; Kumaravadivelu 2001). For the past decades a great emphasis has been given on how language learners learn a language and their individual differences during learning (Ali et al. 2016). The contributions of learner individual differences to the process, such as motivation and learning style, attracted considerable attention (see Dörnyei 2005). Of these individual learner characteristics, Language Learning Strategies (hereafter, LLS) have been of particular interest to researchers (see Cohen and Macaro 2007; Liang 2009). Language learning strategies are seen as one of the key components of second language acquisition, both practitioners and researchers have become aware of the importance of LLS to learn a foreign language more efficiently (Akay and Cingillioglu 2016).

The concept of LLS is based on the findings of cognitive psychology, which claims that humans are processors of information (McLaughlin 1987). Indeed, earlier definitions of LLS reflected this cognitive basis. For example, Chamot and Kupper (1989) indicated that LLS are techniques utilized by students in acquiring, storing, and recalling new knowledge and skills, and that some of them are observable while others are not. Other definitions were more encompassing, for example Oxford (1990) referred to them

as specific actions taken by learners with the overall aim of developing communicative competence, and which involve not only cognitive, but also social and affective aspects. Recently, Dörnyei (2003) stated that LLS are techniques that students apply of their own free will to enhance the effectiveness of their learning. More recently, Swan (2008) stressed that strategies should be “problem-oriented and subject to conscious selection from a range of alternatives... to involve procedures that not all learners would automatically engage in without teaching” (p. 265).

According to Grenfell and Harris (1999), there are two reasons affecting LLS in language learning; while investigating the strategies that foreign language learners use, they obtain deep understanding of different LLS. Indeed, early research focused on the LLS used by successful language learners (O'Malley et al. 1985; Politzer and McGroarty 1985) and those who were less successful (Vann and Abraham 1990). This line of research culminated in the works of O'Malley and Chamot (1990) and Oxford (1990), who proposed LLS taxonomies that guided subsequent research in the field. The second reason is that while teaching LLS to less successful students, they may have the opportunity to become more successful.

The practical goal of LLS use is that the students may become more autonomous, flexible, active and effective while empowering language learners (Nacera 2010).

The most internationally influential instrument that has been used in LLS research is Oxford's (1990) Strategy Inventory for Language Learning (hereafter, SILL) which was designed to measure learners' uses of LLS under six categories: compensation, memory, cognitive, social, metacognitive and affective strategies. SILL has been used in research to investigate the use of LLS (Griffiths and Parr 2001), and to find out the relationships between LLS use and language proficiency (Park 1997), cognitive style (Cohen 2014) and language learners' beliefs (Yang 1996).

LLS research has received particular interest in university settings. Wharton (2000), Evcim (2008), Magogwe and Oliver (2009), Yilmaz (2009) and Gerami and Baighlou (2011) studied the relationship between the LLS and student success at university settings and found out similar results. More recently, Shah et al. (2013) researched the LLS use of a group of Malaysian university students who were taking English courses as part of their undergraduate studies. Their participants reported using social, compensation, cognitive and affective strategies at a high level, and metacognitive and memory strategies at a medium level. LLS use research has also continued at tertiary level in the recent years (see Yunus and Nazri 2016; Ihsan and Diem 2016; Kazalizad and Kalilzadeh 2016; Feleciya and Meenakshi 2016).

In university settings, the studies carried out showed that there is a meaningful relationship between LLS use and student success. After looking at the studies mentioned above, it can be concluded that, teaching LLS to the students at university level may result in higher academic achievement scores while learning English. As mentioned earlier, LLS are categorized differently by different researchers, and by using Oxford's (1990) classification. Parallel with the idea above, the current study aimed to answer the following research questions:

1. What are the LLS used by learners of English as a foreign language?
2. Is there a difference in LLS use and academic achievement?
3. Is there a correlation between LLS use and academic achievement?

METHODOLOGY

Participants

444 students (188 males, 277 females) whose age range is between 18-21 participated in this

study. These students study at an English preparatory department of a state-run university in the western part of Turkey, and they completed the Turkish version of SILL (Demirel 2009). At the time of data collection, these 445 students were studying at the A2 level of the Common European Framework of References for Languages (CEFR). After they study one year compulsory English language education in the department, and have a score to be successful, they can continue their education in their faculties; Faculties of Science and Letters (n=340), Economics and Administration (n=68), and Engineering and Architecture (n=37).

Data Collection Instrument

The first data in the current study was collected by means of Demirel's (2009) Turkish version of SILL (Oxford 1990). SILL consists of 50 items which was designed as a five point Likert type scale. 50 items were grouped into two main sections: direct and indirect strategies. Direct strategies were named as memory, cognitive and compensation. On the other hand, indirect strategies were named as metacognitive, affective and social. The original instrument, which has six factors, was validated using CFA in Demirel's study.

The second source of data is the achievement scores which are defined in the current study as the scores that students got from different evaluation criteria during the two semesters. They are evaluated by looking at the achievement examination, which affects fifty percent of students' total score. In the examination, there are five sections: reading, writing, listening, speaking and use of English. Each has a weight of twenty percent. After students take the achievement test and get their scores out of one hundred, the total score is divided by two, because fifty percent of the achievement examination is taken into account to see the students' total achievement score. The remaining fifty percent of the students' total achievement score is taken from: portfolio assignment (20%), quizzes (20%), and attendance to the classes (10%). If the total achievement score is under sixty, it is said that student is unsuccessful and they study that level again for five weeks. If the student is able to get a higher score than sixty, then the student is accepted as successful and continues to the next level. In the current study, the

participants' achievement was taken as a binary categorical variable: 'successful' and 'unsuccessful'.

Data Collection Procedures

The inventory was administered voluntarily in the sixth week of the fall semester in 2011-2012 academic year with the permission of preparatory department chair. At that time, the students were studying at A2 level. It was a conscious decision to administer SILL in the sixth week since students need to have sufficient time to know about the context and the language. The instructors assisted the administering of the inventory, and the students were reassured about keeping their answers anonymous.

Second, after administering SILL to the students at A2 level, the achievement scores were taken into account to compare the results of the SILL questionnaire and the students' scores from the achievement test. B2 level achievement examination scores were accepted as the achievement test. Students took this exam in the spring semester. In other words, in order to take the B2 level exit exam, the students must succeed A1, A2, B1 levels, and they must do the requirements that B2 level requires. Until the B2 level achievement examination, which the researchers assume as the achievement test, the students took 20 weeks of English language education that each week consists of 30 hours of classes which makes 600 hours of English language teaching.

Data Analysis Procedures

Both confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) have been con-

ducted to test the validity and the reliability if the instrument (Yesilbursa and Ipek 2013). After conducting CFA and EFA, in this research, in order to find out the LLS used by learners, descriptive statistics was calculated for each factor emerging from CFA for the total sample for the participants who had been successful in the achievement test, and those who had been unsuccessful. Moreover, in order to find out the difference in strategy use, independent samples t-tests were done on the mean scores for each factor for each group of students. Finally, the relationship of these strategies with academic achievement is found out by calculating non-parametric Spearman's correlation coefficient. SPSS 16.0 and AMOS 16.0 were used to analyze the data.

RESULTS

In the current study there were 445 students and SILL questionnaire had been used to provide the required data. After applying the questionnaire, the necessity to validate the SILL questionnaire aroused. To provide a valid data, both EFA and CFA were conducted. After conducting the factor analysis, 50 item SILL questionnaire was reduced to 16 items. Those 50 items had originally been grouped into six; however, in the current thesis 16 items were grouped into four factors. As a result, the SILL instrument consisted of 16 items in four groups named memory, cognitive, metacognitive and social (Yesilbursa and Ipek 2013).

Results of Research Question 1

The descriptive statistics for the results of LLS used by learners are presented in Table 1

Table 1: LLS use profiles of the current sample (N=445)

<i>LLS type</i>	<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Std. deviation</i>	<i>Std. error mean</i>
<i>Memory</i>	1. Successful	181	2.92	.87	.06
	2. Unsuccessful	264	2.94	.83	.05
	3. Total	445	2.93		
<i>Compensation</i>	1. Successful	181	3.78	.81	.06
	2. Unsuccessful	264	3.56	.88	.05
	3. Total	445	3.65		
<i>Metacognitive</i>	1. Successful	181	3.90	.72	.05
	2. Unsuccessful	264	3.68	.72	.05
	3. Total	445	3.77		
<i>Social</i>	1. Successful	181	4.38	.58	.04
	2. Unsuccessful	264	4.28	.67	.04
	3. Total	445	4.32		

for the whole group ($n=445$); the students who were successful at B2 level ($n=264$) and those who were unsuccessful ($n=181$). According to the mean for each category of LLS for the whole group, social strategies ($M=4.42$) was the mostly used, metacognitive strategies ($M=3.77$) in the second rank, compensation strategies ($M=3.65$) in the third and finally memory strategies ($M=2.93$) rank.

Results of Research Question 2

The results for the differences in LLS use among successful and unsuccessful groups showed a similar pattern (see Table 2), with the respective means of LLS category for each group given as follows: for successful students the mean for social strategy use is 4.38, while it is 4.28 for unsuccessful students. Secondly, for successful students the mean for metacognitive strategies is 3.90, and it 3.68 for unsuccessful students. Thirdly for successful students the mean for compensation strategies is 3.78 whereas for unsuccessful students it is 3.56. Finally, the mean for the use of memory strategies among successful students is the 2.92; while it is 2.94 for unsuccessful students.

The researchers have also carried out an independent-samples t-test to compare the difference between successful and unsuccessful students in B2 level achievement test according to their LLS use in order to find out the relationship of the LLS and students' academic achievement. The results are given in Table 2. As these findings indicate, there was no significant difference between the successful and unsuccessful students for memory strategies or social strategies. On the other hand there was a significant difference between successful and unsuccessful students for compensation strategies and

metacognitive strategies. This suggests that the successful students used both these categories of LLS to a significantly greater degree than unsuccessful students did.

The results of the current study indicates that there was not a significant or meaningful difference between the successful and unsuccessful students for memory strategies ($t=-.18$). On the other hand there was a significant difference between successful and unsuccessful students for compensation strategies ($t=2.65$). This significant difference was also meaningful because the magnitude of the difference is big. Moreover, there was a significant difference between successful and unsuccessful students for metacognitive strategies ($t=3.14$). The difference was also meaningful because the magnitude of the difference is very big. Also, there was a difference between successful and unsuccessful students for social strategies ($t=1.61$); however, the difference is not meaningful as the magnitude is small. Similar results were obtained from the studies mentioned below.

Results of Research Question 3

It is necessary to look over the two correlations to have an explicit answer to the research question three which is about the relationship between the LLS use of successful and unsuccessful students. One is the correlation between the factors and the achievement scores, and the other one is the correlation between each of the factors. Table 3 gives the results of the Spearman Rho correlative coefficients.

It is seen that there is no significant correlation between students' achievement, memory or social strategies, suggesting that there is no relationship between the use of these strategies and students' success in the achievement test,

Table 2: Paired samples t-tests of the students' performance on achievement test (N=445)

LLS category	Group	M	SD	df	t
Memory	1. Successful	2.92	.87	443	-.18
	2. Unsuccessful	2.94	.83		
Compensation	1. Successful	3.78	.81	443	2.65*
	2. Unsuccessful	3.56	.88		
Metacognitive	1. Successful	3.90	.72	443	3.14*
	2. Unsuccessful	3.68	.72		
Social	1. Successful	4.38	.58	443	1.61
	2. Unsuccessful	4.28	.67		

* $p < .05$

Table 3: Correlations between strategy use and success in B2 level achievement test

Variable		1	2	3	4	5
1	Achievement	1.000	-	-	-	-
2	A	.02	1.000	-	-	-
3	B	-.12**	.27**	1.000	-	-
4	C	-.15**	.33**	.40**	1.000	-
5	D	-.06	.28**	.36**	.41**	1.000

Note. ** Correlation is significant at the 0.01 level (2-tailed).

although the students used social strategies most frequently. On the other hand, there was a correlation of small magnitude but high significance between the achievement scores, compensation and metacognitive strategies.

Regarding the correlations between LLS categories, it can be inferred from the table that, using memory strategies have a positive correlation with using compensatory strategies from low to moderate level. This level can be assumed to have a low to moderate significance (.27). Also, using memory strategies have a positive correlation with using metacognitive strategies. The magnitude is at moderate level (.33). Finally, using memory strategies have a positive correlation with using social strategies. This level can be said to have a moderate magnitude (.28).

The correlation between the use of compensation strategies and metacognitive strategies is also positive. The magnitude is moderate (.40). Moreover, the correlation between the use of compensation strategies and social strategies is also of a moderate magnitude (.36). The correlation between metacognitive strategies and social strategies showed that the greatest positive relationship between each other is with a moderate magnitude of .41.

DISCUSSION

Yunus and Nazri (2016) investigated the LLS used by ten successful ESL learners of a private university in Malaysia. It was found out that successful learners are high frequency users of LLS, and metacognitive strategies are the mostly used LLS ($M=3.96$) followed respectively by compensation ($M=3.814$), cognitive ($M=3.812$), social ($M=3.7$), memory ($M=3.1$) and affective (2.89). Compared with the current study, there is a difference between the LLS use choice of students. While in this study social strategies ($M=4.38$) are the mostly used ones, in Yunus and Nazri's study, it is compensation strategies

($M=3.814$). However, the means of LLS use regarding compensation strategies are close to each other. On the other hand, there is a similarity between the least used LLS in both studies. While memory is the least used strategy in the current study ($M=2.92$), the mean of memory strategy use among successful students is 3.1 in Yunus and Nazri's (2015) study.

Akay and Cingillioglu (2016) assessed the language learning strategies used by English Language Teaching students in Bosnia and Herzegovina. They found out that metacognitive ($M=3.8$) and social ($M=3.71$) strategies are the mostly used strategies among the others similar to our study. Moreover, there is also a similarity between the compensation and memory strategy use of these two studies. In their study, the mean for compensation strategy use is 3.495 which is 3.78 in this study. Also, the mean for memory strategy use is 3.03 which is similar to this study- social strategy use mean is 2.92.

Ali et al. (2016) investigated the frequency of language learning strategy use by M.A. in English Literature/Linguistics students in Pakistan by using SILL. They found out that 'metacognitive' strategies are used frequently by all the students ($M=7.73$), which is similar to the findings of this study ($M=3.90$). Moreover, memory strategy use is the lowest in both studies. While the mean is 3.03 in their study, it is 2.92 in this study.

Ihsan and Diem (2016) discovered the LLS use of English as a foreign language EFL students at tertiary level in Indonesia. Similar with the results of the current study, metacognitive strategy use is the highest in their study ($M=3.05$) followed by social ($M=3.3$), memory ($M=3.2$) and compensation ($M=3.02$) strategies. Although the results of their study regarding the rank show a difference, the mean rates are similar to this study.

Jiang and Wu (2016) investigated the LLS use of Australian and Chinese EFL students at

tertiary level. The results show that Chinese students' LLS use is very similar to this study. The sequences from the most frequently used to the least frequently used category of strategies are similar for the Chinese students and the students in this study. The sequence is compensation ($M=3.70$), social ($M=3.29$), metacognitive ($M=3.23$) and memory ($M=3.01$) for Chinese learners. On the other hand, the sequence for the most frequently used to the least frequently used category of LLS for Australian students are quite different from this study. The sequence is social ($M=3.41$), metacognitive ($M=3.26$), compensation ($M=3.22$) and memory ($M=2.77$), which is different from this study.

Gerami and Baighlou (2011) stated that there is a relationship between LLS use and academic achievement. Metacognitive strategies were the most frequently used strategy ($M=4.16$), while affective strategies were the least frequently used strategy ($M=2.4$). The medium of successful students' LLS use was 3.29. Similarly, Wharton (2000) studied the frequency level of strategy use and students' self-rating proficiency. In the study, it is found out that good students use social strategies mostly ($M=3.10$). Social strategies were followed by compensation ($M=3.01$) and metacognitive strategies ($M=2.85$). A similar finding was obtained by Magogwe and Oliver (2007). It was stated that all students indicated a greater preference for metacognitive ($M=3.28$), cognitive ($M=2.88$) and social strategies ($M=2.86$) than they did for other strategies. However, more good and fair students recorded preference for metacognitive strategies than did the poor proficiency students. Moreover, Evcim (2008) found out that students using LLS are more successful than the students who did not use these strategies. Also, Yilmaz (2009) studied the relationships between LLS use and proficiency of the students. In his study, the students were classified into three groups as good, fair and poor according to their scores. No significant differences have been found between the students in three groups regarding academic achievement and their strategy use.

According to the study, good students use compensatory ($M=4.13$) and metacognitive ($M=4.04$) strategies mostly. There was no significant difference between the cognitive ($M=3.72$) and social ($M=3.56$) strategies which have a rank of three and four. Memory ($M=3.51$) and affective ($M=3.51$) strategies have the same average

and shared the fifth rank by good students. Finally, the study by Grossman (2011) tells us that successful students use metacognitive strategies most, and the difference between the mean of successful and unsuccessful students is both significant and meaningful ($M=3.63$). On the other hand, the difference between successful and unsuccessful students relating to LLS use for the other strategies is neither significant nor meaningful.

CONCLUSION

The findings reported that there are significant differences between the LLS use of learners of English. It is found out that successful language learners use mostly social and the metacognitive strategies. The other two strategies are compensation and memory regarding the frequency of their use. Although the findings of the current study are limited to the university students, the findings explored some considerable results for LLS use of English language learners. The findings of this study may help the curriculum designers, teachers and also the students in their English language teaching/learning curriculum design, teaching and learning.

RECOMMENDATIONS

As the results of this study revealed a significant difference in LLS use, some recommendations can be made regarding EFL classes. These recommendations can serve as a valuable reference for further research and for the improvement of English education. Moreover, these recommendations can be useful while preparing the curriculum and the lesson plans both in EFL and English Language Teacher Training departments. Firstly, teaching LLS to EFL students should be made since it can be useful for the learners to be aware of their LLS use. Then active use of these strategies in the classrooms should be emphasized by the teachers of English. Moreover, learning activities can be designed according to the LLS use of the students. More specifically, social and metacognitive strategies can be emphasized in the classrooms. Finally, strategy based materials and curriculum can be prepared for the learners of English language. The last recommendation can be made for the teacher educators working at English language teacher training departments or institutions. These educators may teach the importance of LLS to the prospective teachers of English.

There are also limitations of this study. One can be that, it is only conducted on university students. This study can be implemented to other learners studying at different institutions. Moreover, the results of this study can be cross checked or validated with the tools used qualitative research paradigm such as interviews or observations.

NOTE

This article is derived from MA dissertation titled Language Learning Strategy Use and English Language Academic Achievement among University Preparatory School Students (2012) of Ömer Faruk İpek, supervised by Aysegül Amanda Yesilbursa submitted at Abant İzzet Baysal University, Bolu, Turkey.

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