# Language Learning Strategy Use and Instruction for the Iranian Junior High School EFL Learners: A Mixed Methods Approach

Alireza Ahmadi
Shiraz University
*arahmadi@shirazu.ac.ir*

Saba Mahmoodi
Shiraz University
*saba_mahmoodi45@yahoo.com*

**Abstract**

In order to confirm the effectiveness of language learning strategies in the Iranian context in junior high schools, this study was designed to examine the patterns of strategy use, the effects of strategy instruction on the students' strategy use, and the relationship between the participants' strategy use and their English achievement. To achieve this objective, 57 junior high school participants studying in 2 intact classes of the same school took part in the study. Each class was randomly assigned to either the control or experimental groups. The experimental group received instruction on using strategies which were related to vocabulary and grammar and were considered to be appropriate for their level. Due to practicality reasons only 6 strategies were selected form Oxford's taxonomy (1990). Gunning's Children's SILL (1997, adapted from Oxford, 1990) was applied before and after strategy instruction. An EFL teacher-made achievement test was also conducted after the treatment. The results revealed that affective category was the most used category by the learners, followed by metacognitive, compensatory, memory, and social categories. Also, the cognitive category was the least used category. The difference between the control and experimental groups in terms of strategy use appeared to be significant, indicating the effectiveness of strategy instruction. The results also showed a significant positive relationship between the participants' strategy use and achievement.

*Keywords*: Language Learning Strategies; Strategy Use; Strategy
Instruction; Iranian EFL Learners; Strategy Inventory for
Language Learning (SILL)

## 1. Introduction

During the last few decades, EFL scholars and teachers have shifted their focus away from the teacher-centered perspective to the learner-centered

perspective. Nowadays, learners take on more responsibility for their learning in order to meet their own individual needs. The learner-centered perspective puts more responsibility on the students' shoulder by making use of language learning strategies (LLSs). These strategies help students (a) to become more autonomous, (b) to diagnose their own learning strengths and weaknesses, and (c) to self-direct their own learning process (Cohen & Weaver, 1998). In other words, these instructional programs help learners learn how to learn a foreign language in the most effective way. Language learning scholars (e.g., Bruen, 2001; Strong, 1984) have tried to investigate successful learners' learning process, to identify various useful strategies for EFL learning, and to find ways to instruct them in the classroom context so that these strategies help low proficiency learners who encounter problems in the process of language learning improve their learning.

The goal of strategy instruction is to help students become better language learners. Learning strategies leads to increased EFL learning motivation (Nunan, 1997), and it can enable students to become more autonomous, lifelong learners (Allwright, 1990; Little, 1991). According to Oxford (1990, p. 10), "self-directed students gradually gain greater confidence, involvement, and proficiency."

Taking into consideration the significant role of strategies in language learning, it is essential for every teacher to know how to help students become more effective learners. Including strategy instructions in language teaching, especially for beginner EFL learners, helps students to build their knowledge of strategies on a true basis from the very beginning and makes their English learning process easier and more efficient. Many research findings indicate the value and necessity of strategies for language learning (Chamot & O'Malley, 1996; Oxford, 1990; Oxford & Leaver, 1996), but little work has been done on beginner EFL students' language learning strategies. Therefore, this study was designed to contribute to the existing body of literature in this regard.

## 2. Literature Review

### *2.1 Strategy Classification Systems*

Many definitions have been proposed by various scholars for strategy (e.g., Chamot, 1990; Cohen, 1998; O'Malley & Chamot, 1990; Oxford, 1990). The most commonly cited definition for the term strategy has been proposed by Oxford (1990, p. 8), stating that LLSs are ". . . specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations."

Over the course of the past three decades, many strategy classification systems have been proposed (Cohen, 1998; O'Malley & Chamot, 1990; Oxford, 1990; Rubin, 1981; Stern, 1983). The classification systems most popular by researchers in the field are those of O'Malley and Chamot (1990) and Oxford (1990). O'Malley and Chamot (1990) established a taxonomy identifying 23 strategies classified into three categories: metacognitive, cognitive and, social-affective.

Oxford (1990) developed a more comprehensive strategy inventory. She classified strategies into direct strategies (i.e., those which directly involve the target language) and indirect strategies (i.e., those which provide indirect support for language learning). Direct strategies may be subdivided into memory strategies (used for recalling, storing & retrieving information), cognitive strategies (applied to understand, practice & produce the language) and, finally compensation strategies (used by learners to deal with the difficulties they find). Indirect strategies deal with the management of learning and consist of metacognitive strategies (for monitoring learning), affective strategies (for regulating personal attitudes), and social strategies (for learning while interacting with others).

According to Ellis (1994, p. 539), Oxford's taxonomy is "perhaps the most comprehensive classification of learning strategies to date." This six-category classification system is the base for SILL devised by Oxford (1990) which has been used in a great deal of research (e.g., Gunning, 2011; Lee, & Oxford, 2008; Yang, 2010) in the strategy learning field.

*2.2 Review of Research on Language Learning Strategies*
*2.2.1 Patterns of Strategy Use Among Learners*

Many scholars have found EFL learners as moderate strategy users (Lan & Oxford, 2003; Nikoopour, Amini Farsani, & Kashefi Neishabouri, 2011; Park, 1997; Rahimi, Riazi, & Saif, 2008; Sahandri, Kafipour, & Abdullah, 2009; Yang, 2010). Other studies have found different patterns of strategy use by learners. For example, Chamot and Kupper (1989) conducted a research to identify learning strategies used in studying foreign languages. The results indicated that the preferred strategies of the beginner learners were the cognitive strategies of repetition, translation, and transfer. But social and affective strategies were not frequently used. Similarly, Gunning (1997) investigated ESL students in Canada using children's SILL. The results indicated that the strategy category most frequently used by the participants was the compensation category, followed by affective and metacognitive categories. Cognitive, social and memory categories were the least applied. In another study conducted by Gunning (2011), she perceived that the children used mainly affective and compensatory strategies, such as asking for help and risk-taking. In Park's study (1997), the Korean students applied metacognitive strategies most frequently and affective strategies least frequently. Yang (2010) also investigated the frequently used English learning strategies by the EFL Korean university students and found out that they employed compensation, metacognitive, social, cognitive, affective, and memory strategies in the order of frequency of use. Shang (2010) examined the Taiwanese EFL learners' use of three reading strategies (cognitive, metacognitive, and compensation strategies). The results indicated that the most frequent use of reading strategy was related to the metacognitive strategy, followed by compensation strategy, and cognitive strategy.

Focusing on the Iranian context, Ghavamnia, Kassaian, and Dabaghi (2011) examined the EFL university learners' strategy use and found cognitive strategy as the most frequently used strategy followed by metacognitive, compensation, memory, and socioaffective strategies. Nikoopour et al. (2011) also found out that the Iranian EFL learners applied metacognitive, affective, compensation, cognitive, social, and memory strategies in the order of frequency showing that the Iranian

EFL learners preferred to use metacognitive as the most frequently used strategy and memory as the least frequently one. Rahimi et al. (2008) also found that Metacognitive strategies were the most frequent and memory strategies the least frequent. Finally, Sahandri et al., (2009) evaluated the Iranian undergraduate EFL learners' vocabulary learning strategies and their relation to the learners' vocabulary size. The findings that determination (discovering the meaning of new words) strategies were the most frequently used strategies followed by memory, metacognitive, cognitive, and social strategies.

### 2.2.2 Relationship Between Learning Strategies and Other Variables

Many studies have investigated the relationship between strategy learning and other variables. The findings of Ghavamnia et al.'s study (2011) revealed a positive relationship between strategy use and motivation, proficiency, and language learning beliefs. Rahimi et al. (2008) examined the use of LLSs by the EFL Iranian learners. They studied the variables (proficiency, motivation, learning style, gender & years of language study) affecting the learners' selection of strategies. The results indicated that proficiency level and motivation were the main predictors of the use of LLS. Gunning (2011) also found that motivation influenced the children's overall strategy use significantly. Park (1997) investigated the relationship between LLSs and L2 proficiency by using SILL and TOEFL for the EFL university students in Korea. The findings showed a linear relationship between LLSs and the TOEFL scores which provided evidence for the importance of quantity of strategy use in L2 proficiency. In the same line, Lan and Oxford (2003) investigated the students learning EFL in an elementary school in Taiwan. The results showed evidence of positive linear relationships among the students' strategy use and three variables, namely gender, proficiency and attitudes toward learning English. The findings also showed that the Taiwanese students rarely used metacognitive and social strategies, and less than one-fourth of the students reported liking English.

### 2.2.3 Effects of Strategy Instruction on Learning

Mehrpour, Sadighi, and Bagheri (2012) investigated the implementation of reading strategy instruction in raising students' awareness of reading strategies and

increasing their reading comprehension ability. The findings showed that strategy training seemed to raise the students' awareness of reading strategies, but the reading strategy instruction did not enhance the students' reading performance significantly. In the same line, Coşkun (2010) investigated the effect of metacognitive listening strategy training on the listening performance of a group of beginner school students in Turkey. The results revealed that strategy instruction increased the students' listening performance significantly. Mizumoto and Takeuchi (2009) examined the effectiveness of explicit instruction of vocabulary learning strategies with the EFL learners in Japan. The results indicated that the instruction increased the use of specific strategies more than other ones, and different students responded differently to the strategy training.

The studies conducted so far were mostly conducted on intermediate or advanced learners of English and were in many cases limited to the ESL contexts. Also, most of the studies in this field did not involve instruction of the strategies. In fact, the studies involving instruction of LLSs to beginner learners in EFL contexts are scarce. The present study attempts to fill this gap in the literature by answering the following research questions:

1. What are the patterns of strategy use amongst the junior high school students at the second-grade level?

2. What is the effect of strategy instruction on the students' strategy use?

3. What is the relationship between the students' strategy use and academic achievement as measured by success on the final exam?

## 3. Method

### 3.1 Participants

The participants were 57 second-grade students of junior high school (all females) in Kavar, Fars, with the average age of 13. They were selected based on their availability from two intact classes. Because of the administrative limitations, the participants could not be distributed randomly. Therefore, one of the classes was

assigned to the experimental group and received the strategy instruction and the other to the control group and continued the usual school curriculum.

### 3.2 Instruments

### 3.2.1 Children's SILL Questionnaire

This questionnaire was originally developed by Oxford (1990), but Gunning (1997) modified it for children's use. The participants were asked to respond using the four-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). To ensure comprehensibility on the part of the participants, the questionnaire was translated into Persian in the present study. It was then checked and modified by two EFL experts to make sure that the translation version matched the original version. The reliability coefficient of the translated questionnaire was also checked through Cronbach's alpha ($r = 0.82$). A sample of items of the questionnaire is presented in appendix A.

### 3.2.2 Language Achievement Test

The language test was used as the posttest in the program. This test consisted of 60 items: 30 vocabulary items and 30 grammar items constructed on the basis of the second-grade English book of the junior high school. All the questions were multiple-choice. Attempts were made for the test to cover the main points of the book. The reliability coefficient of the test was quite high determined through Cronbach's alpha ($r = 0.93$). From each section of the test one item is presented in appendix B as an example of item type used in the test.

### 3.2.3 Diary

The third instrument used was the diaries written by the participants. Diaries are used in strategy research to provide personal reports of learners' experiences. As Oxford et al. (1996, p. 20) state, "language learning diaries are a type of self-report, which allows learners to record on a regular basis numerous aspects of their learning process." In this study, the participants were asked to write their diaries in Persian because of their low level of proficiency. The purpose of diary writing was to raise the participants' consciousness about their own learning strategies.

### 3.2.4 Observation

The last instrument employed in the study was other-report (observation) that refers to "someone else's observations of the learner's learning" (Oxford, 2011, p. 140). This instrument is used to record the participants' reactions and comments on the program. The teacher made notes of her observations of the participants' strategy learning in an observation journal.

### 3.3 Treatment

There are a lot of strategies that assist learners in learning a new language, but because of lack of time and the low level of the participants, only few of them were instructed in the treatment process of the present study. Attempts were made to choose the strategies that matched the level of the participants. Thus, among the strategies presented in Oxford's (1990) taxonomy, six strategies were selected: semantic mapping, flashcards, use of resources, self-monitoring, note-taking, and highlighting.

Using their L1 (i.e., Persian), the meaning and goals of strategy instruction were explained to the participants in the first session. The teacher explained and modeled using the strategies, and the participants practiced the strategies following the teacher's example. The whole program was planned around three topics: (a) an introduction to learning English and strategies, (b) strategies for learning grammar, and (c) strategies for learning vocabulary. There were three training sessions (each session lasting for about 30-45 min) which took place during the regular time of the English class. The strategies were explained to the participants by using clear examples in the participants' L1, and the participants were encouraged to make use of them.

The treatment was conducted in three steps: (a) raising awareness toward strategies, (b) teaching the six specified strategies, and (c) practicing the strategies. First, the teacher tried to prepare the learners for strategy learning. So, LLS was defined, and its influence on success was clarified by giving examples from the teacher's personal experience and people learning English. The participants were asked about their use of strategies for EFL learning. The teacher stated that they had

definitely developed some strategies for learning a foreign language, but they might not have been using them in a systematic way. The teacher tried to convince the participants of the efficiency of the strategies and encouraged them to apply them in their language learning process. In the next stage, there was an attempt to alert the participants to the new strategies. Then, the teacher modeled the use of new strategies and gave examples for each. Finally, after assuring of the participants' understanding of the use of each strategy, further examples were elicited from the participants through practicing them.

### 3.4 Data Collection Procedure

At the beginning of the term, copies of the questionnaire were administered to the participants in both the experimental and control groups. Administration time was approximately 20 min. It was mentioned that whatever answer was given by the participants was correct and their answers would not affect their course grades. At the time of administration, some participants encountered some ambiguous items, so these items were explained and elaborated on.

After that, the selected strategies were gradually introduced and modeled by the teacher in the experimental group, and the participants were encouraged to employ them. There was an attempt to explain the strategies without using terminologies for the purpose of easier understanding on the part of the participants. The whole treatment period lasted for about 8 weeks. At the end of the treatment, the questionnaire was again given to the participants and the achievement test was also administered. The participants were also expected to write a diary of strategy practice during the treatment in order to know their reactions and comments on applying strategies. The teacher also observed and recorded the participants' reactions during the treatment in her observation journal.

### 3.5 Data Analysis

To analyze the data, the researcher used both qualitative and quantitative methods. For the qualitative analysis, the diary and observational journals were utilized. The process of categorization was performed by parsing the recurrent strategies and counting them and converting them into percentages. For the

quantitative analysis, $t$ test was used to compare the results of the questionnaire before and after the treatment for both groups. Pearson correlation coefficient was also applied to the scores of the experimental group on CSILL questionnaire and the achievement test conducted after the treatment in order to describe the relationship between the two variables.

## 4. Results

### 4.1 Patterns of Strategy Use

The first research question aimed at finding the patterns of strategy use among the junior high school students. To study the patterns of strategy use before any instruction, the first research question was studied in two aspects: (a) the most and the least used strategy categories in general, and (b) the most and the least used strategy items.

### 4.1.1 The Most and the Least Used Strategy Categories

The mean of strategy use was calculated overall and for each category separately to identify the most and the least frequent strategy categories. Table 1 displays the results in this regard:

Table 1. *Descriptive Statistics for the Strategy Use before the Treatment*

| Strategy Category | Mean |
| --- | --- |
| Affective | 3.1 |
| Metacognitive | 3.00 |
| Compensatory | 2.95 |
| Memory | 2.93 |
| Social | 2.84 |
| Cognitive | 2.74 |
| Overall strategy use | 2.63 |

As shown in Table 1, the pattern of strategy use reported by the participants at the beginning of the term from the most to the least used strategy is affective ($M = 3.1$), metacognitive ($M = 3.00$), compensatory ($M = 2.95$), memory ($M = 2.93$), social ($M = 2.84$), and cognitive ($M = 2.74$). Thus, among the six categories in the CSILL, the most used one is the affective category. Another category with approximately the same mean (3.00) is the metacognitive category helping the

participants in managing the learning process. Cognitive strategy is the least used strategy among the six categories of CSILL. Comparing the means of all the categories used, we can see that the participants have used all of them moderately and even the least used strategy (cognitive) does not differ much from the other employed categories. The overall mean for the use of categories is 2.63 which indicates a moderate use of the strategies.

### 4.1.2 The Most and Least Used Strategy Items

In order to identify the individual strategies that the participants used most and least (before the treatment), the frequency of the use of all strategy items was calculated. Tables 2 and 3 show the five most and the five least used strategies by the participants. As we see in Table 2, the most used strategy is a compensatory strategy, *guessing the meaning from context*. The mean value for this item is 3.68, which is the highest mean among all the strategy items. The second strategy employed by the participants is also a compensatory strategy focusing on asking for help, with a mean value of 3.54. The third frequent strategy is cognitive, (practicing: repeating and writing), with the reported mean use of 3.48. The fourth strategy reported frequently belongs to the memory category, indicating the use of background knowledge with the mean value of 3.48. Finally, the fifth strategy reported by the participants to be common is metacognitive, focusing on attentive listening with the mean use of 3.32:

Table 2. *The Most Used Strategy Items*

| Category | Strategy Item in Children's SILL | Mean |
|---|---|---|
| 1.Compensatory (16) | When I see or hear a new word in English, I try to guess the meaning by looking at the rest of the sentence. | 3.68 |
| 2.Compensatory (18) | When I don't know a word in English, I ask for help. | 3.54 |
| 3.Cognitive (4) | I repeat or write the same English word several times to help me remember it. | 3.48 |
| 4.Memory (1) | I use what I already know to help me understand new English texts or words. | 3.38 |
| 5.Metacognitive (23) | When someone speaks to me in English, I listen attentively. | 3.32 |

All of the least used strategies were from the cognitive category. Table 3 indicates these strategies in order: watching TV and listening to the radio in English, reading English books, seeking extra-curricular opportunities, practicing English with parents and using computer in English:

Table 3. The *Least Used Strategy Items*

| Category | Strategy Item in Children's SILL | Mean |
|---|---|---|
| 1. Cognitive (6) | I watch TV or I listen to the radio in English. | 2.14 |
| 2. Cognitive (7) | I read books in English. | 2.27 |
| 3. Cognitive (9) | I try to find opportunities outside of school (sports, activities, etc.) to practice my English. | 2.48 |
| 4.Cognitive (10) | I practice what I learn with my parents. | 2.48 |
| 5. Cognitive (8) | I work on the computer in English (Internet, games, programs, etc.). | 2.61 |

### 4.2 The Effect of Instruction on Strategy Use

First, in order to establish the homogeneity of both groups in terms of strategy use, an independent-samples *t* test was conducted to examine the difference between the performances of the two groups on LLSs before the experiment. The results indicated that there was no significant difference in this regard. In other words, the two groups were homogeneous in terms of their use of LLSs at the beginning of the study. The results of the independent-samples *t* test are depicted in Table 4.

Table 4. *Results of Independent-Samples t Test for Strategy Use Before the Instruction*

| | N | M | SD | t | Sig. |
|---|---|---|---|---|---|
| Control Group | 28 | 92.87 | 15.81 | 1.85 | .07 |
| Experimental Group | 28 | 85.86 | 10.89 | | |

To study the effectiveness of the strategy instruction on the strategy use of the experimental group and to compare their result to the control group, both groups took the same CSILL questionnaire after the completion of the course. The results of an independent-samples *t* test showed that the mean scores of the experimental

group was significantly different from the mean score of the control group (see Table 5):

Table 5. *Results of Independent-Samples t Test for Strategy Use After the Instruction*

|  | N | M | SD | t | Sig. |
|---|---|---|---|---|---|
| Control Group | 25 | 87.40 | 19.40 | -2.62 | .01 |
| Experimental Group | 29 | 98.62 | 11.51 |  |  |

Although the results of the independent samples *t* test indicated that the experimental group was significantly different from the control group, paired-samples *t* test was also used to have a clear picture of the improvement they had through explicit instruction. The results of the paired-samples *t* test are shown in Tables 6 and 7. As indicated for the experimental group, the difference between the pretest and posttest was significant ($t = .000$, $p < .05$). Thus, there was a statistically significant increase in the reported strategy use from the pretest (prior to the treatment) to the posttest (after the treatment):

Table 6. *Results of a Paired-Samples t Test for the Reported Strategy Use by the Experimental Group*

|  | M | N | SD | t | Sig. |
|---|---|---|---|---|---|
| Pretest | 85.86 | 28 | 10.89 | -5.06 | 0.000 |
| Posttest | 98.64 | 28 | 11.72 |  |  |

But the results of paired-samples *t* test for the control group was not significant. Therefore, there was not a significant increase in the reported strategy use from the pretest to the posttest for the control group. Surprisingly, the control group reported less use of the strategies in the posttest compared to the pretest (Table 7), indicating that their use of strategies had been haphazard and unsystematic.

Table 7. *Results of a Paired-Samples t Test for the Reported Strategy Use by the Control Group*

|  | M | N | SD | t | Sig |
|---|---|---|---|---|---|
| Pretest | 92.20 | 25 | 14.12 | .99 | 0.33 |
| Posttest | 87.40 | 25 | 19.40 |  |  |

### 4.3 Relationship Between the Strategy Use and Achievement

Pearson correlation coefficient was employed to describe the type of relationship between the scores of the experimental group on CSILL questionnaire and the EFL achievement test. A strong positive and significant correlation was found between the two variables, $r = 0.92$.

### 4.4 Diary and Teacher Observation

In the current study, 20 participants mentioned the use of one or more strategies in their process of language learning in their diary logs written during the treatment. The strategies used by the participants were grouped, and changed into percentage. The most frequent strategies were using resources (30%), and formally practicing with writing systems (30%), in which the participants wrote the vocabulary items several times to learn them better. Other applied strategies were using flashcards (25%), repetition (25%), self-evaluation (15%), cooperation with others (10%), semantic mapping (10%), using mechanical techniques (10%), self-monitoring (5%), and structural reviewing (5%). For example, a student stated, "I memorize the new words I have learned at school and in English language class by using flashcards." Another participant mentioned her inclination toward using flashcards by stating, "I practiced and played with flashcards, it's very efficient, especially if it's accompanied by game." Another student indicated that she tried to teach the new vocabulary to her family members to learn it more effectively. A pupil mentioned her application of highlighting strategy, "I study the new words and I put a checkmark next to those words I haven't learned. At the end, I work on the highlighted words more. This strategy is useful." Some learners mentioned making use of self-evaluation after learning the English book materials. The following quotes indicate this:

- After studying the new words of each lesson, I take a dictation from myself.
- After studying, I test myself. Then, my mother grades it.
- After learning the new words, I take a dictation test from myself. And, after learning all parts of the book, I test myself.
- I practice the words on a piece of paper, then, I ask my father to test me.

Some participants did not have enough motivation to use the strategies. One of the proficient learners declared that she did not use the strategies because she did not feel she needed them. Another student stated: "I didn't use many strategies, because by once reading the book content they stay in my min." Another learner commented: "I don't know which strategy to use that could be effective for me and influence my performance very soon." Another pupil wrote in her diary: "I have made some flashcards to learn vocabulary, but I didn't have time to read them."

When the participants were working with the strategies, they tended to use the strategies that were more familiar to them. For example, they had learned to make flashcards for the alphabet letters in the previous year, so they tried to use it more than monitoring which was not familiar to them.

According to the teacher observation, the learners applied formally practicing with writing systems and flashcards more than other strategies, but self-monitoring was the least frequent one. Furthermore, note-taking and resourcing strategies were preferred by higher proficiency learners.

## 5. Discussion

### 5.1 Patterns of Strategy Use

### 5.1.1 The Most and the Least Used Strategy Categories

The overall mean for strategy use among the participants was 2.63 which indicates a moderate use of the strategies. The results of this study are in line with other studies conducted in EFL contexts (Lan, 2004; Lan & Oxford, 2003; Nikoopour, et al., 2011; Park, 1997; Rahimi, et al., 2008; Sahandri, et al., 2009; Yang, 2010). This moderate use may be justified by the fact that the Iranian EFL learners do not have the same opportunities as those of the ESL learners to learn English. ESL learners need English for survival in an authentic context and of course they have access to the authentic learning materials. But EFL learners have fewer opportunities to interact with the native English speakers. Therefore, lack of adequate exposure to the authentic language and low contact with the native speakers of English provides them with less challenge to learn LLSs for English learning.

Another reason which may well explain the moderate use of the strategies by the Iranian EFL learners is the educational system which lacks strategy instruction. As such, it is no wonder that many students are not adequately familiar with the strategies or are not accustomed to using them because they are rarely taught how to use strategies and what strategies they can benefit from.

Still the third reason could be their low proficiency level, as the literature indicates that there exists a linear relationship between the strategy use and proficiency level (Lan & Oxford, 2003; Park, 1998; Rahimi, et al., 2008).

Patterns of strategy use among the participants indicated that the affective category is the most used category, followed by metacognitive, compensatory, memory, social, and cognitive categories. Affective strategies serve to regulate emotions, motivation, and attitudes. It seems that the participants attempted more to regulate their emotions toward English learning. This finding is in line with some studies (Gunning, 1997, 2011; Nikoopour, et al., 2011) that found affective category to be among the most used strategy categories, and inconsistent with some studies (Ghavamnia, et al., 2011; Park, 1997; Shang, 2010; Yang, 2010) that found affective strategies to be among the least used strategies by the participants. This inconsistency in the findings may be indicative of the context-specific nature of the strategies.

The second most frequently used strategies were m*etacognitive strategies* applied for planning, organizing, and evaluating learning. This is in line with other studies (Ghavamnia, et al., 2011; Kindelán, 1992; Nikoopour & Amini Farsani, 2010; Nikoopour, et al., 2011; Rahimi, et al. 2008; Park, 1997; Sahandri, et al., 2009; Shang, 2010; Yang, 2010) finding metacognitive strategies among the most applied strategy categories. Metacognitive strategies in learning English aid participants in becoming aware of language learning goals, and setting these goals, choosing adequate tasks, making decisions about which strategies are efficient for the tasks, and evaluating their language learning process. Oxford (1990), in her early research, pointed out that metacognitive strategies encourage learners to overcome the new experience of learning unfamiliar grammatical structures, unknown words,

and confusing writing systems. EFL Iranian learners have to determine what they should learn, how they should benefit from their struggles in learning English, and how they should manage their learning process.

The third most applied strategy category was compensation strategies which is congruent with the studies (Ghavamnia, et al., 2011; Gunning, 2011; Lan, 2004; Nikoopour, et al., 2011; Shang, 2010; Yang, 2010) that indicated compensatory category to be among the most frequently-used strategy categories. Compensation strategies make up for a gap in knowledge, so it is not astonishing that children often rely on these strategies at this age and proficiency level. In order to overcome the problems related to English learning, the Iranian EFL learners have to find their own strategies to compensate for their lack of knowledge. The Iranian learners are in a teacher-oriented learning context and feel apparent lack of exposure to English in their language learning context, so they make use of various compensation strategies including guessing meaning and asking for help.

The study also found that memory strategies belonged to the least frequent strategies used by the Iranian EFL learners. This is consistent with other studies (Ghavamnia, et al., 2011; Gunning, 1997; Nikoopour & Amini Farsani, 2010; Nikoopour, et al., 2011; Rahimi, et al., 2008; Yang, 2010), but inconsistent with Sahandri et al.'s study (2009). Although some studies pinpoint the extensive use of memory strategies by Asian learners, Riazi and Rahimi (2005) explain that memory strategies in the SILL devised by Oxford are different from the memorization techniques that EFL learners employ in learning English.

Social strategies were also among the least used strategies. This finding supports the results of some studies (Chamot & Kupper, 1989; Ghavamnia, et al., 2011; Gunning, 1997; Lan & Oxford, 2003; Nikoopour, et al., 2011; Sahandri, et al., 2009). Social strategies are the actions which learners choose to take in order to interact with other learners and with the native speakers: asking questions, asking for clarification and help, and talking with native speakers. In spite of the exposure to computers, multimedia, and the Internet, the Iranian EFL students seem to have not developed the use of social strategies through the process of language learning.

One reason which might explain the lower use of social strategies is the fact that group work is not usually practiced in the Iranian public schools as the system is basically teacher-centered and learners prefer to do their school works individually. Moreover, because of the lack of an authentic context, the learners rarely find the opportunity to speak with the English native speakers.

In the current study, cognitive strategies were the least applied strategy category. This is consistent with the study conducted by Gunning (1997), but inconsistent with Chamot and Kupper (1989) and Ghavamnia et al., (2011) that found cognitive strategies to be the preferred strategies of the learners. It is also incongruent with some other studies (Kindelán, 1992; Nikoopour, et al., 2011; Palacios Martínez, 1995; Sahandri, et al., 2009; Shang, 2010; Yang, 2010) which found these strategies to be among the most used strategy categories. Cognitive strategies play an important role in manipulating and transforming learning material through practicing, storing, analyzing, reasoning, elaborating and retaining (Park, 1997). One reason for these strategies being the least frequent category appears to be that they cannot be developed simply, and as the students become proficient, their application of cognitive strategies increases gradually. Thus, it seems that because of their low level of proficiency, the participants had not developed a diverse repertoire of strategy categories to cope with the issue of EFL learning. This might also explain why the university learners prefer such strategies (Kindelán, 1992; Palacios Martínez, 1995).

The findings of the present study are, to some extent, inconsistent with the results of the Gunning's (1997) investigation of the participants' pattern of strategy use. She found that compensatory category is the most popular one by the students followed by the affective category and metacognitive category. Nevertheless, Gunning found exactly the same results concerning the least applied categories (cognitive, social, and memory categories). A reason for some discrepancies between the results of the present study and other related studies might be the fact that strategy use is context-specific; students might utilize more strategies in the ESL context than in the EFL context because EFL students may lack adequate

motivation to tackle the issues they confront in the process of foreign language learning, and probably they do not realize the prominent role of English as a lingua franca in interacting with people from different countries. Finally, lack of exposure to English outside the learning context and the absence of systematic teaching of strategies in the public schools may explain the results of this study.

### 5.1.2 The Most and the Least Used Strategy Items

The findings of this study indicated that the most used strategy items were, guessing the meaning from context (compensatory), asking for help (compensatory), practicing by repeating and writing the words (cognitive), use of background knowledge (memory), and attentive listening (metacognitive) in the order of use. The first and second most used strategy items (guessing the meaning from context, and asking for help) were both from compensatory category seeming to suggest that the Iranian EFL learners felt the need to find their own strategies to make up for their lack of language skills in order to overcome their difficulties regarding English learning. The Iranian students are in teacher-oriented learning contexts and feel lack of exposure to the target language situations, so they try to employ a variety of compensation strategies. The Iranian EFL learners use guessing when they attempt to understand the meaning of unknown words, and ask the teacher for help when they confront a problem in their process of language learning. Although overall the cognitive and memory categories were not common among the Iranian EFL learners, the results indicated that two of the very common strategies (practicing by repeating and writing the words and the use of background knowledge) belonged to these two categories indicating that the participants use repeated memorization for learning English, especially for vocabulary learning, and they make use of their prior knowledge to learn the new language constituents, such as grammar and vocabulary.

Gunning (2011) found the five most used strategy items in the following order: attentive listening, trying to understand the meaning without verbatim translation, finding similarities between French and English, asking for help, and taking risks. Comparing the results of the present study with Gunning's, the two studies were not consistent, only attentive listening and asking for help were

common in both studies. In the current study, asking for help was the second most used strategy item, but in Gunning's study it was the fifth strategy item, showing that the participants of the present study (an EFL context) refer to this strategy more than the participants in Gunning's study (an ESL context), which seems to indicate that the students in EFL contexts are more dependent on their teachers. Lan (2004) also found asking for help as the most frequently used strategy item by Taiwanese learners. Attentive listening was the first most used strategy in Gunning's study, but the fifth strategy item in the present study, indicating that Gunning's participants valued this strategy more than the participants in the present study. The participants in the current study were less used to attentive listening in the classroom, perhaps because the school teachers in Iran are not required to speak in English and the two very important skills; that is, listening and speaking, are basically ignored. Juxtaposing Yang's study (2010) with the present study shows that only saying or writing new words several times, is common in both studies, indicating that EFL learners try to learn the new words by practicing them numerous times.

The least used strategies in the present study were, watching TV and listening to the radio in English, reading English books, seeking extra-curricular opportunities, practicing English with parents, and using computer in English. The interesting point about these strategies is that all of them were from the cognitive category. This seems to indicate that participants failed to manipulate the language materials directly for their perception and retention. The least used strategy was watching and listening to English. The justification for not applying this strategy item might be the fact that the participants have not perceived the significance of watching and listening to English for improving their language knowledge and skills. Moreover, the educational system does not attempt to promote itself to higher levels of language pedagogy concerning the use of media at schools and running media application workshops for teachers. Another reason which may seem unrelated but definitely plays a crucial role is the low salary of the teachers, which they say, is a reason why they do not use the approaches of language teaching which require more preparation for the classroom. Rahimi et al. (2008) state that the nature of the Iranian EFL context, providing poor exposure to the naturalistic use and

practice of English, might account for this outcome. This might also show that most of the students only suffice to acquire English in the school environment, but they are not concerned about extending their knowledge of English beyond the school context. This may also indicate the low level of motivation for learning English. The participants in this study stated that English learning was difficult for them and they soon would forget what they had learned; they also questioned the usefulness of its learning. Therefore, this low motivation may have led them not to seek learning English in out of classroom contexts.

### 5.2 Effect of Strategy Instruction on Strategy Use

The results of this study indicated that the experimental group's performance significantly differed from their performance on the pretest. Thus, LLS training seems to have contributed to the improvement of the participants' strategy learning. This finding is not congruent with Mehrpour et al.'s study (2012) but consistent with others (Carrell, Gajdusek, & Wise, 1998; Carrell, Pharis, & Liberto, 1989; Coşkun, 2010; Dörnyei, 1995; Gunning, 2011; Mizumoto & Takeuchi, 2009; Wenden & Rubin, 1987).

According to the teacher observation, the participants showing higher motivation practiced new strategies for their English learning more. The essential role of motivation in using LLSs by the learners has been supported by many studies (Ghavamnia, et al., 2011; Gunning, 2011; Park, 1997; Rahimi, et al., 2008). Thus, it is essential for the teacher to motivate the students in employing the strategies in a wide range of learning materials and activities so that strategies are transferred to new activities and applied by the students without the teacher'' support (O'Malley, et al., 1985). Furthermore, the teacher should check the students' understanding of the strategies and give them feedback on their strategy application, so that the students apply the strategies in the most proper way.

### 5.3 Relationship Between the Strategy Use and Achievement

In the current study, there was a strong, positive relationship between the participants' strategy use and their achievement. The same finding has been reported by other researchers (Bruen, 2001; Ghavamnia, et al. 2012; Glenn, 2000; Park,

1997; Sheorey, 1999). Like Yu's study (2006), this study generally found more use of LLSs by the more proficient and motivated participants. Also, the more positive their language learning beliefs, the more strategies they reported to use.

Generally speaking, in a majority of studies using SILL, conducted in various cultural contexts, a positive relationship between strategy use and language performance is reported (e.g., Bruen, 2001; Glenn, 2000; Park 1997; Sheorey, 1999). "In most but not all instances, the relationship is linear, showing that more advanced or more proficient students use strategies more frequently" (Oxford & Burry-Stock, 1995, p. 10). Similarly, Green and Oxford (1995) found that higher level students reported higher levels of overall strategy use. They also tended to use a greater number of strategies and to use them more frequently.

### 5.4 Diary and Teacher Observation

It appears that the results of the quantitative part of the study are not closely related to the result of the qualitative part; in the quantitative part, the treatment group showed high performance on the achievement test and moderate use of strategies, but they did not show the same in the diaries and observations. This is consistent with Simard, French and Fortier (2007) result, finding no significant association between the learners' performance on grammar and vocabulary tests and their reflections on language. Some scholars (e.g., Cohen, 1997) in the field also believe that observation of classroom events alone as a method of strategy assessment is inefficient because some strategies are observable, whereas others are not. Thus, observing a student using flashcards is easy, but observing the same student self-monitoring is difficult (Cohen, 1997, Macaro as sited in Gunning, 2011). One reason for the discordance between the participants' achievement and strategy use and their reflections in the diaries might be the fact that some participants did not know how to write a diary and wrote a list of strategies they had learned in the classroom.

One of the participants commented that "I have made some flashcards for learning vocabulary, but I didn't have time to read them." It seems that sometimes it is not the participants' perception of the effectiveness of a strategy that influences

their application of the strategies, but the learners' capability to cope with the external factors influencing their trial of the strategies. Not utilizing strategies may also be related to the participants' low motivation for learning English. This low motivation for EFL learning has been repeatedly mentioned by some participants. In the present study, some participants were reluctant to participate in the process of strategy learning, seemingly because of their lack of motivation. According to some researchers (e.g., Rahimi, et al., 2008; Yu, 2006), motivation has a strong effect on learning strategies. Hence, lack of motivation hinders the process of strategy learning. Brown (2002) believes that in EFL contexts, motivation is low because the learners do not transfer their knowledge to the real context.

Finally, it seems that strategy training did not increase strategy use for all the instructed strategies equally. Mizumoto and Takeuchi (2009) also found out that strategy training increased the use of specific strategies more than others. Strategies like formally practicing with writing systems and using flashcards were confirmed by the teacher observations, but some of the strategies were difficult for learners to use even though they were taught and practiced (e.g., note-taking). The participants seemed somewhat reluctant to practice self-monitoring, perhaps because of its demanding nature. Most of the learners wrote in their diary logs that they had encountered difficulties while attempting to put note-taking into practice. Note-taking and resourcing strategies were more favored by those who seemed to be more proficient. This is supported by Kindelán's study (1992) which found that advanced learners apply more sophisticated strategies which involve reorganization of material. This might be because of their higher ability to organize the material in more consistent ways. Other learners who seemed to be less proficient, showed more enthusiasm to work with highlighting procedures, perhaps because of their interesting nature.

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**Appendix A:**
**Gunning's Children's SILL (Sample Items)**

<div dir="rtl">

**بخش الف**

**1.** من از چیزهایی که از قبل می دانستم استفاده می کنم تا متن ها یا کلمات جدید انگلیسی را بفهمم.

1. کاملا مخالفم    2. مخالفم    3. موافقم    4. کاملا موافقم.

**2.** من کلمات را تقلید می کنم تا آن ها را به خاطر بسپارم (مثلا: گوشم را لمس می کنم تا کلمه ی   "ear" را به یاد بیاورم).

1. کاملا مخالفم    2. مخالفم    3. موافقم    4. کاملا موافقم.

**3.** من چیزهایی را که در کلاس یاد می گیرم بیرون از کلاس مرور می کنم.

1. کاملا مخالفم    2. مخالفم    3. موافقم    4. کاملا موافقم.

</div>

**Appendix B:**
**Achievement Test**
**Examples of Grammar Items**

1. We have a house.  ……… house is white.
   a) Our              b) Their              c) My              d) Your
2. Mina ………….. to school every day.
   a) go               b) goes              c) is going        d) to go
3. We live ……. Shiraz.
   a) at               b) in                c) on             d) to

**Examples of Vocabulary Items**

1. Mrs Amini …………….. many students.
   a) speaks            b) writes            c) teaches         d) listens
2. Maryam is …………… dinner for her family.
   a) eating            b) making            c) drinking        d) calling