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College EFL Learners' Achievement and Their Language Learning Strategies

A. Zare-ee Tajareh[1] M. H. Tahririan[2]

Abstract

This study was designed a) to describe strategy use among college EFL learners, b) to examine possible differences between male and female EFL learners in the use of the six categories of learning strategies identified by Oxford's (1990) Strategy Inventory for Language Learning (SILL), and c) to check the relationship between strategy use and EFL achievement before and after the collection of reported strategies. The last aim was chosen for the better understanding of the direction of contributions in the association between strategy use and language learning. The SILL was given to 110 (female and male) freshman English majors at Kashan University, Kashan, Iran. Their responses were analyzed in relation to their achievement in a period before and after the collection of strategies. Results of data analyses showed that the subjects used metacognitive strategies most frequently. Only compensation strategies were related to their previous achievement whereas cognitive, compensation, and memory strategies correlated with their later achievement. No significant sex-related differences were observed.

Keywords: Learning Strategies, Compensation Strategies, Metacognitive Strategies,EFL achievement.

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Introduction

The learners of a language who achieve satisfactory levels of proficiency and who are successful achievers have their own "special ways of doing it". Such learners can probably help us with both understanding more about the nature of language learning and facilitating

1. Instructor, Department of English Language, Kashan University
2. Professor, Faculty of Foring Languages, Isfahan University

language learning for others. This idea was seriously discussed by Stern (1975) and Rubin (1975) about three decades ago. Since then, "most of the research in the area of foreign language learning strategies has focused on the identification, description and classification of useful learning strategies" (Cohen, 1998, p. 13). Researchers have so far offered different definitions and classifications of language learning strategies causing complications and confusion and creating "problems for those researchers who believe it is important to compare results across studies" (Oxford and Ehrmann, 1995, p. 363).

Weinstein and Mayer (1986) define them as "behaviors and thoughts that a learner engages in during learning" (p. 315). Language learning strategies are defined by O'Malley and Chamot (1990) as special thoughts or behaviors that individuals use to comprehend, learn, or retain new information" (p. 1). And Oxford (1994) defines them as "actions, behaviors, steps, or techniques students use, often unconsciously, to improve their progress in apprehending, internalizing, and using the L2" (p. 1).

Classifications and taxonomies of language learning strategies, too, abound. Examples are classifications based on styles and learners (Stutter, 1989), psychological functions (O'Malley and Chamot, 1990), and language skills (Cohen, 1990).

In addition to attempts made for defining and classifying language learning strategies, many researchers have shown interest in their relationship with the amount of L2 proficiency achieved by language learners (e.g. Bialystok, 1981; Politzer and McGroaty, 1985; Raimes, 1987; Mangubhai, 1991; Bremner, 1999). Results so far are far from satisfactory. One of the major problems is that it is not yet possible to decide whether the use of language learning strategies actually causes better learning of a second language or the better learning of a second language results in better strategy use. Some of the controversial research findings in this area will be presented here.

Studies of the relationship between language learning strategies and L2 learning outcomes have not yet enabled researchers to pronounce final conclusions because a great majority of them have been cross-sectional, correctional, single-instrument, and limited in scope. Oxford (1994), however, reports one of the major research findings as follows: "use of appropriate language learning strategies often results in improved proficiency or achievement overall or in specific skill areas" (p. 1).

Second language learning strategies, by definition, should contribute to language learning outcomes because they are learner behaviors aimed at better learning. Investigations do not always show this. For example, Cohen (1998) contends "the literature is replete with studies suggesting that higher-proficiency or lower-proficiency learners use more or fewer strategies than the other group usually indicating that the better learners use more strategies but sometimes just the opposite" (p. 8).

Studies of the relationship between learning strategies and learning outcomes

Bialystok (1981), studying the relationship between four strategies and proficiency in the case of grade 10 and 12 learners of French in Canada, found that only "functional practice", "formal practice", and "monitoring" were related to L2 proficiency in the grade 12 subjects. She found no relationship between the fourth strategy, inferencing, and proficiency. Politzer and McGroarty (1985) found very few statistically significant correlations between strategy use and language learning gains in an intensive ESL course for Hispanics and Asians at American universities.

Green and Oxford (1995) found greater use of language learning strategies by more successful students at the university of Puerto Rico; whereas, Cohen (1990)

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observed that higher proficiency English majors at a foreign language institute used fewer communication strategies though more effectively. Vann and Abraham (1990) found that unsuccessful learners often used the same strategies used by successful learners but applied them less flexibly.

Bremner (1999) found significant variation in proficiency in relation to eleven out of a possible fifty language learning strategies collected from a group of Hong Kong learners through Oxford's (1990) SILL questionnaire. Because of the uncertainty about the direction of contributions in the association between proficiency and language learning strategies, Bremner regarded learning strategy once as the dependent and once as the independent variable in his study.

Chamot and El-Dinary (1999) found no differences in total strategies used by high-rated and low-rated students in elementary immersion programs. Raimes (1987) found little correspondence among proficiency, writing ability, and the subjects' composing strategies. Researchers have also found strong positive relationships between specific language learning strategies on the one hand and the acquisition of EFL vocabulary (e.g. Etemad, 1998) or EFL of reading skills (e.g. Akbari, 2002).

Ellis (1994) offers a model of second language learning in which the learner's choice of language learning strategies is determined by individual learner differences and situational and social factors. The learner's choice of strategy is, in turn, determined by and also determines language learning outcomes. This interactivity may be part of the truth about language learning strategies, but it does not give a clear picture of how each influences the other.

The purpose of the study

This study was done to contribute to the better understanding of the relationship between language learning strategies and language learning outcomes. Another objective was to add to the repertoire of knowledge of patterns of strategy use in different EFL settings. The following research questions were specifically addressed:

1) What types of language learning strategies do the Iranian EFL learners under investigation use?
2) Are male and female learners different in their use of strategy categories identified by the SILL questionnaire?
3) Is there any relationship between reported strategies and EFL achievement before and after reporting strategy use?
4) Are EFL learners with different levels of achievement different in their use of strategy categories?

Subjects

The subjects participating in this study (n=110, 66 female and 44 male) were all freshman English majors studying for a BA degree in English at the English Department of Kashan University, Kashan, Iran. Their age range was between 18 and 22. They had all studied the same textbooks in compulsory English courses at their junior and senior high schools. The subjects had all participated in a nation-wide university entrance examination, which included an English test on high school English. The participants were enrolled in three parallel classes to develop listening and speaking skills in the language lab, reading comprehension, and writing and study skills for fifteen weeks.

Instruments

For collecting data on the language learning strategies used by the subjects, Oxford's (1990) Strategy Inventory for Language Learning (SILL, version 7.0 for EFL/ESL) was used. The SILL questionnaire (see appendix) consists of fifty items and, according to Oxford (1990), it is designed to collect data on the following six categories of language learning strategies:

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1. Memory strategies used for better storage and retrieval of information (items 1-9),
2. Cognitive strategies used for manipulating and transforming the target language (items 10-23),
3. Compensation strategies used to make up for limitations in the language knowledge necessary for communication (items 24-26),
4. Metacognitive strategies used to control the learner's own cognition (items 30-38),
5. Affective strategies related to the learner's attitudes and feelings (items 39-44),
6. Social strategies employed in communication with other people (items 45-50).

The first three groups (memory, cognitive, and compensation strategies) are believed to involve the target language *"directly"*; whereas, the last three groups (metacognitive, affective, and social strategies) are said to contribute *"indirectly"* to the learning of a second language.

Two measures were used to determine the subjects' achievement in EFL. One was used to measure their EFL achievement when they took the university entrance examination and the other was used to reassess their EFL achievement at the end of their first term of studying English at the university, that is after the collection of their reported use of language learning strategies.

Scores on the English section of the nation-wide university entrance examination served as indicators of the subjects' achievement before their reports on their strategy use. The National Bureau of Assessment in Iran *(Sanjesh)* administers the exam annually and controls admission to all state universities in all subject areas including the B.A. degree in English. The English exam consists of 30-40 multiple-choice items on grammar, vocabulary, and reading comprehension based on the four prescribed textbooks in compulsory English courses in high school. Results of this part of the exam are separately reported to the admitting universities and are indicators of the learners EFL achievement, which are widely used for placement and other similar decision-making purposes. All the subjects had taken the test about two months before the time of data collection on their use of strategies.

After the data on the reported use of language learning strategies were collected, the students' achievement in EFL was reassessed. This time the indicator of achievement was their end-of-term GPA in all of the English courses they were taking. The subjects, enrolled in three parallel classes, were given end-of-term teacher-made achievement tests on listening, speaking, reading, and writing.

They studied "English through Reading" for their reading course and "American Streamline" for their speaking and listening courses. All three parallel classes were taught by the same teacher and they all took the same final exam.

Data collection

The SILL questionnaire version 7.0 written in simple English especially for EFL/ESL learners was distributed to the participants as it appears in the appendix. The questionnaire was given in the 7th week of the 15-week fall term in college and the results were recorded on data sheets. Data on beginning EFL achievement (i.e. achievement in the high school period preceding data collection) were collected from the subjects' admission records and reports released by the national Bureau of Assessment. Data on EFL achievement after a term of English instruction was collected two months later when teachers reported the results of their end-of-term tests. Based on their final GPA's the subjects were also classified into three groups of EFL achievers: poor (scores below 40%), average (scores between 40% and 70%), and good (scores above 70%). Achievement scores and reported strategies were summarized, tabulated, and rendered to statistical analyses to test the entire hypotheses of the study.

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Data Analysis

In the analysis phase of the study, both descriptive and inferential analyses were used for the data on the reported use of language learning strategies (Lickert scale) and the data on EFL achievement (interval data). The analysis of the data for each research question is presented below.

Description of strategy use

The first purpose of the study was to describe the type of language learning strategies used by the subjects. To this aim, the frequencies and percentages of reported strategies for all of the 110 subjects were calculated and the strategies were rank-ordered based on their mean frequency. Table 1 shows six of the most frequently reported language learning strategies and it also indicates the category to which each strategy belongs.

Table 1 Six strategies most frequently reported by the subjects

ITEM ON SILL	DESCRIPTION OF STRATEGY	MEAN	CATEGORY
32	I pay attention when someone is speaking English.	4.55	Metacognitive
33	I try to find out how to be a better learner of English.	4.37	Metacognitive
38	I think about progress in the English language.	4.37	Social
31	I notice my English mistakes and use that information to help me do better.	4.17	Metacognitive
45	If I do not understand something in English, I ask the other person to slow down or say it again.	4.05	Metacognitive
37	I have clear goals for improving my English.	3.99	Metacognitive

As the above table shows, there is only one social strategy among the most commonly reported ones and the rest are metacognitive strategies used by the subjects to control their own cognition. There is, of course, the possibility that the subjects reported what they thought they should do to become more successful. The least frequently reported strategies are summarized in Table 2 below:

Table 2 Six strategies least frequently reported by the subjects

ITEM ON SILL	DESCRIPTION OF STRATEGY	MEAN	CATEGORY
27	I read English without looking up every new word.	2.23	Compensation
7	I physically act out new English word.	2.45	Memory
43	I write down my feelings in a language-learning diary.	2.68	Compensation
6	I use flashcards to remember new English words.	2.76	Memory
41	I give myself a reward or treat when I do well in English.	2.95	Affective
17	I write notes, messages, letters, or reports in English.	3.01	Cognitive

The above table indicates that most of the subjects used vocabulary learning strategies least frequently and this finding was less than suspected as far as the researcher's personal experience with the research population is concerned.

Male-female differences in strategy use

The second research question was whether male and female EFL learners were different in terms of reported

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language learning strategy use. Table 3 below shows groups statistics for the reported frequencies of the six categories of language learning strategies among male and female subjects:

Table 3 Mean frequencies of six categories of strategies for male and female learners

STRATEGY CATEGORY	GENDER	N	MEAN	SD
Affective	Female	66	19.73	3.87
	Male	44	19.23	3.61
Cognitive	Female	66	49.59	7.12
	Male	44	50.31	7.48
Compensation	Female	66	18.82	3.52
	Male	44	19.70	4.26
Memory	Female	66	30.58	5.40
	Male	44	29.07	5.30
Metacognitive	Female	66	37.05	4.46
	Male	44	36.29	5.65
Social	Female	66	20.68	4.06
	Male	44	21.48	4.71

As Table 3 shows the mean frequencies in all categories of strategies were different for the male and female learners. But the t-test, which was used to see if these differences were statistically significant, showed no significance for these differences.

The relationship between strategy use and EFL achievement

The relationships between the reported use of language learning strategies on the one hand and EFL achievement were analyzed. All the six categories of strategies were studied in association with both EFL achievement in high school (beginning achievement) and EFL achievement at the end of the first term of university study (final achievement). The analyses (see Table 4 below) showed that only compensation strategies correlated with beginning achievement, but three categories of language learning strategies (cognitive strategies, compensation strategies, and memory strategies) were correlated with final achievement.

Table 4 Spearman correlation between language learning strategy categories and EFL achievement (n=110)

STRATEGY CATEGORY	BEGINNING ACHIEVEMENT	SIG (TWO-TAILED)	FINAL ACHIEVEMENT	SIG (TWO-TAILED)
Affective	-0.11	.27	-0.12	.83
Cognitive	0.15	.13	0.26*	.007
Compensation	0.24*	.14	0.25*	.01
Memory	-0.12	.23	0.66*	.050
Metacognitive	0.15	.11	0.19	.51
Social	-0.02	.84	-0.018	.85

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As the above table shows all the correlations found were weak positive correlations. The strongest relationship was found between memory strategies and final achievement (r=0.66).

Differences between low, average, and high EFL achievers

One of the major research questions was whether students with different levels of EFL achievement differed in terms of language learning strategy use. The subjects in this study were also classified into low, average, and high achievers based on their EFL achievement scores after one term of studying EFL at the university. Low achievers were those who scored below 40% on their final GPA's; average achievers scored between 40% and 70%; and high achievers scored above 70%. These three groups of students were compared in terms of their reported use of the six categories of language learning strategies on the SILL questionnaire. The analysis of variance (ANOVA), summarized in Table 5, showed significant differences between low, average, and high EFL achievers in some of the strategy categories.

Table 5 ANOVA between low, average, and high achievers in terms of language learning strategies use

STRATEGY CATEGORY	SUM OF SQUARES		DF	MEAN SQUARES	F	SIG.
Affective	Between	7.17	2	3.58	.24	.78
	Within	13322.6	90	14.69		
Cognitive	Between	344.99	2	172.5	3.53	.033
	Within	4390.9	90	47.79		
Compensation	Between	153.77	2	76.88	5.68	.005
	Within	1216.7	90	13.52		
Memory	Between	95.009	2	47.50	1.60	.20
	Within	2664.9	90	29.61		
Metacognitive	Between	74.09	2	37.04	1.66	.19
	Within	2000.8	90	22.23		
Social	Between	25.23	2	12.62	.716	.49
	Within	15.86.01	90	17.62		

Table 5 shows that learners with different levels of EFL achievement used cognitive and compensation strategies differently. The mean frequencies of those who achieved more was higher in all of the six categories of strategies, but these differences were significant only for cognitive and compensation strategies.

Summary of the major findings

The description of six categories of language learning strategies identified through Oxford's (1990) SILL (i.e. cognitive, metacognitive, memory, compensation, affective, and social strategies) and their associations with EFL achievement among a group of Iranian college students showed the following

1. Five of the most frequently used strategies out of fifty were metacognitive strategies.
2. The least frequently used strategies were mainly those addressing second language vocabulary acquisition.
3. Although female learners appeared to report more

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strategy use, the differences between their mean strategy use and that of the male learners were not significant.

4. Only compensation strategies correlated with previous achievement, whereas cognitive, compensation, and memory strategies varied with final achievement.
5. Low, average, and high EFL achievers at the college level differed significantly in their use of cognitive and compensation strategies.
6. Cognitive strategies correlated with final achievement, but not with achievement before reporting the strategies.

Conclusions and discussion

One of the major findings of this study was that cognitive strategies contribute to EFL achievement. This finding supports Green and Oxford (1995), Bremner (1999) and Hoang's (1999) findings. These researchers, too, found that "*cognitive*" strategies contributed to language learning outcomes and correlated with them in significant ways.

In Hoang's (1999) study, Vietnamese learners tended to be metacognitively oriented just like the Iranian learners in this study. Like Hoang's subjects, the participants in the present research also reported using metacognitive strategies more than other categories of language learning strategies. None of these strategies, however, suggest any causal relationship between language learning strategy use and language learning outcomes.

In this study, compensation strategies were found both to determine and to be determined by L2 learning outcomes. Cognitive strategies, on the other hand, only determined later EFL achievement. These findings support the idea that as learners of a second language achieve more of their L2, they are capable of redefining or modifying their previous language learning strategies.

Diachronic studies of change in L2 learners' strategies in the course of and in association with L2 learning may give a better picture of their relationships. The idea of the interactive relationship between strategies and language learning (language learning strategies ►◄ language learning outcomes) may be replaced by a different kind of relationship: language learning strategies ►learning outcomes ►different language learning strategies ►learning outcomes ►different language learning strategies .... It may be the case that some language learning strategies are always causally related to L2 learning outcomes, whereas others are the artifacts of it.

Finally, the idea of self-regulation with strategic instruction will possibly prove effective in Asian contexts where, according to Robbins (2000) learners of EFL or other foreign languages have been educated in an environment that many would think to be the antithesis of learner outonomy.

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Appendix

Strategy Inventory for Language Learning (SILL): The ESL/EFL Students Version

Please carefully read each of the following 50 statements about learning English. After the careful reading of each statement, please indicate how often it is true for you. For each choose one of the following responses:

1. The statement is never or almost never true of me. *(Never)*
2. The statement is usually not true of me. *(Seldom)*
3. The statement is somewhat true of me. *(Sometimes)*
4. The statement is usually true of me. *(Often)*
5. The statement is always or almost always true of me. *(Always)*

1. I think of relationships between what I already know and new things I learn in English.
2. I use new English words in a sentence so I can remember them.
3. I connect the sound of a new English word and an image or picture of the word to help me remember the word.
4. I remember a new English word by making a mental picture of a situation in which the word might be used.
5. I use rhymes to remember new English words.
6. I use flashcards to remember new English words.
7. I physically act out new English words.
8. I review English lessons often.
9. I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign.
10. I say or write new English words several times.
11. I try to talk like native English speakers.
12. I practice the sounds of English.
13. I use the English words I know in a different way.
14. I start conversations in English.
15. I watch English language TV shows spoken in English or go to movies spoken in English.
16. I read for pleasure in English.
17. I write notes, messages, letters, or reports in English.
18. I first skim an English passage (read over the passage quickly) then go back and read carefully.
19. I look for words in my own language that are similar to new words in English.
20. I try to find patterns in English.
21. I find the meaning of an English word by dividing it into parts that I understand.
22. I try not to translate word-for word.
23. I make summaries of information that I hear or read in English.
24. To understand unfamiliar English words, I make guesses.
25. When I cannot think of a word during a conversation in English, I use gestures.
26. I make up new words if I do not know the right ones in English.
27. I read English without looking up every new word.
28. I try to guess what the other person will say next in English.
29. If I can't think of an English word, I use a word or phrase that means the same thing.
30. I try to find as many ways as I can to use my English.
31. I notice my English mistakes and use that in formation to help me do better.
32. I pay attention when someone is speaking English.
33. I try to find out how to be a better learner of English.

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34. I plan my schedule so I will have enough time to study English.
35. I look for people I can talk to in English.
36. I look for opportunities to read as much as possible in English.
37. I have clear goals for improving my English skills.
38. I think about my progress in learning English.
39. I try to relax whenever I feel afraid of using English.
40. I encourage myself to speak English even when I am afraid of making a mistake.
41. I give myself a reward or treat when I do well in
42. English.
43. I notice if I am tense or nervous when I am studying or using English.
44. I write down my feelings in a language learning diary.
45. I talk to someone else about how I feel when I am learning English.
46. If I do not understand something in English, I ask the other person to slow down or say it again.
47. I ask English speakers to correct me when I talk.
48. I practice English with other students.
49. I ask for help from English speakers.
50. I ask questions in English.
51. I try to learn about the culture of English speakers.

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