An Investigation into Iranian EFL Learners' Use of Language Learning Strategies

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Abstract. Research has shown that the use of effective language learning strategies is a major characteristic of successful language learners. However, the successfulness of strategy-use is often dependent on various factors. The purpose of this study was to investigate language learning strategies used by Iranian EFL students of different age and gender at Shiraz University. The study examined students' strategy use in relation to factors such as gender and age. The participants of the quantitative phase of the study comprised 93 undergraduate university students who enrolled in the English Literature program in Iran; 30 students from the same group were randomly selected for the interviews. Quantitative data were analyzed using the Multivariate Analysis of Variance to determine any significant difference in strategy use among students. Moreover, qualitative data were analyzed through the NVIVO and the three coding procedures of open-coding, axial-coding and selective-coding. The results of quantitative data showed that significant differences existed in the use of meta-cognitive strategies regarding the variable of age. The qualitative analysis using Nvivo revealed six qualitative models. Each of the models was allocated to one of the strategy categories of memory, cognitive, compensation, meta-cognitive, affective and social strategies.

Keywords: language learning strategies, quantitative, qualitative, NVIVO, coding procedures.

1. Introduction

In the last decades, there has been a noticeable shift towards learners and learning. The emphasis has been placed on empowering students and learner autonomy is gaining momentum in the field of language teaching. Today, language learners are deemed active participants in the process of language learning (Cotterall 1995; Spratt and Leung 2000; Kashefian-Naeeini et al. 2010). Research has shown that learners who have the ability to use language learning strategies (LLSs) are more predisposed to succeed and to achieve their educational goals (Simsek and Balaban 2010; Kashefian-Naeeini and Nooreiny Maarof 2010). Many scholars concur that the use of LLSs is one of the main characteristics of successful language learners. Learning strategies are the intentional techniques which learners use to facilitate the learning process. Researchers have not agreed on a single definition of learning strategies. However, in this study, Oxford's (1990) definition is adopted in which LLSs are specific actions taken by learners to make learning easier, faster and more transferable to new situations. This research aims at answering the following questions:

- Is there a difference in the use of the six strategy categories among selected Iranian students of different age and gender?
- What are the strategy models revealed by Iranian and Malaysian students' interviews?

2. Theoretical Framework of the Study

In her classification of learning strategies, Oxford (1990) ameliorates and expands many of the models offered so far. She divides strategies into two main types. These comprise direct language learning strategies and indirect language learning strategies. While direct strategies are involved in conscious mental processes, indirect ones support language learning without involving the target language. Oxford further subdivides the two major types of LLSs into six distinctive groups. Memory strategies, cognitive strategies and compensation strategies are allocated to the direct category, while metacognitive strategies, affective category and social strategies are put under the indirect category. The six strategy categories are interrelated. The theoretical framework of the present study is also taken from Oxford (1990). Cognitive learning theory (Mclaughlin, 1987; Anderson, 1983, 2010) together with social/social-cognitive models (Bandura,1986; Vygotsky, 1987) provided the rational for the use and development of learning strategies. Many of the classification theories of second language learning strategies were derived from cognitive learning theory and social/social-cognitive model and according to Lai (2009), Oxford's 1990 classification theory was one of the classifications which originated from these two theoretical frameworks.

3. Research Methods

3.1. Participants

The participants of the study comprised male and female university students studying English Literature at the School of Language and Linguistics at Shiraz University, Iran. All the participants of the present study were selected from one level of education referred to here as undergraduate (B.A. students). Cluster sampling was used in this study. In this sampling procedure, the entire population of interest was divided into groups, or clusters, and a random sample of these clusters was selected. Each cluster must be mutually exclusive and together the clusters must include the entire population. After clusters are selected, all units within the clusters are selected (Sarndal et al. 1992). As all the units within a cluster are selected, the sampling procedure of this study is the one-stage cluster sampling. This kind of sampling procedure offers three main advantages of feasibility, economy and reduced variability. As undergraduate Literature in English students of Shiraz University were involved in this study, the entire population was divided into clusters of freshmen, sophomores and juniors. From each of these clusters one class was randomly selected, which means one class from Iranian freshmen, one from Iranian sophomores and one from juniors.

3.2. Instruments

The necessary data were collected via two instruments. The main instrument is the Strategy Inventory for Language Learning (SILL), which was devised by Oxford (1990). As Green and Oxford (1995) have maintained, studies using SILL have involved around 8000 students in various parts of the world. This pen and paper survey consists of 50 items to which students are supposed to respond on a 5-point Likert scale ranging from 'never' to 'always'. Oxford's classification of learning strategies encompasses six aspects of the language learning strategies. Semi-structured interviews were also used and interview guides were applied. This research included a general framework of themes to be explored and flexibility was retained.

3.3.1 Validity and Reliability of Instruments

In the present study, though SILL has been checked for reliability and validity indices and has been validated in multiple ways, it was administered to a pilot group which was randomly selected in Iran. The reliability of the questionnaire was established via Cronbach's alpha. It is an internal consistency reliability coefficient measuring the degree to which items agree with each other. The Cronbach's alpha for the whole questionnaire was found to be .92. Even though the SILL questionnaire has previously been checked for validity and has been validated in multiple ways, it was validated again in this study by several professors and experts in the field. In order to estimate the interrater reliability of interviews, Cohen's kappa was used. Cohen's kappa coefficient is a statistical measure of inter-rater agreement (reliability) used in qualitative research. The interrater agreement reliability for interviews turned to be 0.82. This value reflects high strengths of agreement and reliabilities of interviews.

4. Results

A Multivariate Analysis of Variance (MANOVA) mixed design (group × measures) was conducted to determine any effect of age on the six strategy categories of memory, cognitive, compensation, metacognitive, affective and social strategies. The multivariate test was performed on the data at the 0.05 level of significance. Findings from the multivariate test of Wilk's Lambda showed a non-significant age main effect (Wilks' Λ = .804, F (12, 166) =1.599, p =.096). The detailed results are shown in the following table (Table 1).

Table 1 Multivariate Test Conducted for the Six Strategy Categories by Age

Effect	Value	F	Hypothesis df	Error df	Significance	Partial Eta Squared
Age	.804	1.599	12	166	.96	.104

To determine the effects of the dependent variables of memory, cognitive, compensation, metacognitive, affective and social strategies, a univariate analysis was run the results of which are shown in Table 2 below. The univariate analysis revealed that the main effects of the dependent variables were significant for meta-cognitive strategies (F [2, 88] =7.017, p=.001, η^2= .138) and students who were below 20 obtained significantly higher means than students who were between 20 to 23 years old or those who were above 23. As the factor of age had more than two levels and the univariate analysis revealed a significant age main effect for metacognitive strategies, the Bonferroni Post-Hoc Multiple Comparison test was performed. The Bonferroni post-hoc multiple comparisons for observed means, which was used to determine the pairs which were different because of factors other than chance, showed two revealing results. First, the results showed that the means of the first group (students who were below 20 years of age) and that of the third group (students who were above 23 years of age) were statistically significant at alpha equals 0.001 levels. Second, the means of students of the first group (students who were below 20 years of age) and that of the second group (students who were between the ages of 20 to 23) were statistically significant at alpha equals 0.009.

Table 2 Univariate Analysis (Tests of Between-Subjects Effects)

Source	Sum of Square	df	Mean Square	F	Sig
Memory Strategies	1.694	2	.847	2.302	.106
Cognitive Strategies	1.827	2	.914	2.810	.066
Compensation Strategies	.343	2	.172	.380	.685
Metacognitive Strategies	6.800	2	3.400	7.017	.001
Affective Strategies	3.658	2	1.829	2.938	.058
Social Strategies	3.382	2	1.691	2.772	.068

The multivariate test for students' of different gender yielded a Wilks' Lambda = .948, F (6, 84) =.765, p =0.60. The results of univariate analysis revealed that effects of the dependent variables were not significant for any of the six strategy categories. It seemed that students' gender did not have any influence on any of the six strategy categories of memory, cognitive, compensation, metacognitive, affective and social strategies.

The qualitative data from the interviews were analyzed using the NVIVO software. Open-coding, axial coding and selective-coding procedures were also applied to categorize the data. During the open-coding procedure, the relevant categories were identified and the strategies which students used were illuminated. After the open-coding process, the themes were categorized through the axial-coding procedure in which data were put back together in new ways, by making connections between categories. The central categories which were obtained were tied together and related during the selective-coding procedure whereby the researchers looked selective for cases and the central themes were also identified.

One of the questions asked during the interviews was "How do you learn new English words or new expressions; Which strategies do you use?" This question is related to memory strategies used by language learners. Memory strategies seem to help the students remember words and expressions in English. The responses revealed by data analysis were 'by looking up in a dictionary', 'by learning from situations in

which I am', by learning from instructors', 'by using the internet', by using computer', 'by picturing in the mind', 'by using examples', 'by memorizing words', 'by learning from friends', 'by learning from boards in the department' and 'by using software' (See Figure 1 below for the Memory Model).
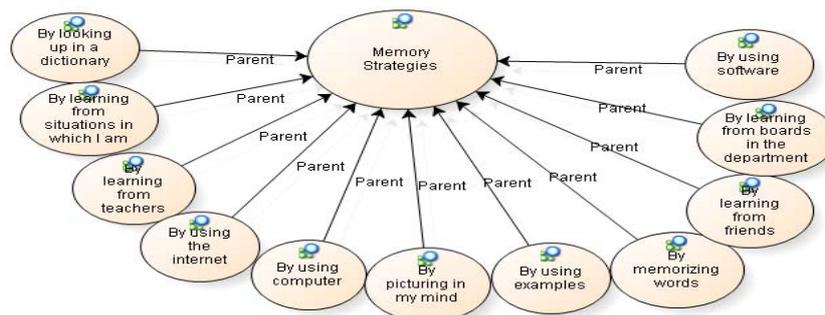

Figure 1 Memory Model for Iranian Students' Use of Strategies as Revealed from Interviews

The three coding procedures of open-coding, axial coding and selective coding revealed the major codes of 'adjusting or approximating the message', 'using a circumlocution or synonym', 'using mime or gesture', and 'using nonlinguistic clues' for compensation strategies. Knowledge of nonlinguistic clues comes from a wide range of sources: "knowledge of context, situation, text structure, personal relationships, topic or general world knowledge" (Oxford 1990: 49). Using 'circumlocution' or 'synonym' is also related to using either explanation or description of a word which a learner does not know, or using another word carrying the same meaning. The results of the coding procedures are displayed in Table 3 below.

Table 3 General Themes Related to the Compensation Category together with Major Codes

General Themes (Specific Strategies)	Major Code
Using simple words	Adjusting or approximating the message
Using equivalent words	Using a circumlocution or synonym
Adjusting to the audience	Adjusting or approximating the message
Using pantomime	Using mime or gesture
Using drawing	Using nonlinguistic clues

Moreover, the qualitative analysis of interviews revealed five other qualitative models which emerged for each of the strategy categories of memory, cognitive, metacognitive, affective and social strategies. The coding procedures revealed the major code categories of 'using resources for learning and remembering words', 'applying images and sounds', 'contextualizing' and 'reviewing' for memory strategies, 'creating structure for input and output', 'practicing' and 'preparing' for cognitive strategies. It is hoped that findings of this research provided a deeper understanding on strategy use among language learners in general and Iranian learners in particular. The code-categories found for indirect strategies are shown in Table 4.

Table 4 Major Codes Related to Metacognitive, Affective and Social Strategies

	Metacognitive Strategies	Affective Strategies	Social Strategies
Major Codes	Evaluating	Showing a positive attitude	Asking for clarification
	Seeking Practice Opportunities	Feeling relaxed	Asking for correction
	Overviewing and linking		Asking for help
	Arranging and planning learning		

5. Conclusion

Learner's background was taken into consideration some aspects of which are age and gender. English Literature major students of Shiraz University, who differed in age and gender, were involved and their use of the six strategy inventories of memory, cognitive, compensation, metacognitive, affective and social strategies was estimated. The youngest Iranian students (those who were below 20 years of age) acquired the highest means in all the six strategy categories followed by those students who were in the age range of 20 to 23 and the differences were statistically significant for metacognitive strategies. Moreover, it was found that though female students obtained a higher mean in all of the strategy categories, the differences were not statistically significant. In other words, the age variable influenced students' use of some of the strategies; however, such influences were not observed for the variable of gender. Qualitative coding procedures were also conducted for interviews and transcribed data were categorized through the coding procedures. Interviews led to six qualitative models which emerged for each of the strategy categories. By and large, it is hoped that this research has added to the current knowledge in the area of language learning strategies.

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