On the Relationship Between Language Learning Strategies and Foreign Language Anxiety

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Previous research studies have shown language anxiety to be related with broad-based indices of language achievement, like course grade. However, to date, the potential link between foreign language anxiety and language learning strategies has not been empirically investigated. This study is an attempt to identify the relationship between language anxiety and strategy use. It reports on a survey of language learning strategies used by high-anxious and low-anxious learners. Generally, significant negative correlation obtained between levels of language anxiety and strategy use. In the meantime, t-test revealed significant difference between high-anxious and low-anxious groups on the level of use of strategies. That is, the more anxious the students are, the less frequently they use strategies. Further, the result showed that among students with high anxiety metacognitive and memory strategies were the most used, while compensation and affective strategies were the least. Less anxious students reported using metacognitive and social strategies as the most, on the other hand, memory, and affective strategies as the least ones. This study discusses these findings, suggests possible questions for future research, and makes implications for increasing foreign language learning.

Key Words: foreign language anxiety**,** language learning strategies

1 Introduction

In the last few years, research literature on language learning strategies has experienced tremendous growth. According to Rubin (1987, cited in Nyikos and Oxford, 1993) "interest in learning strategies is due in large part to increased attention to the learner-centered instructional models of teaching" (P. 10). These trends can be traced to the recognition of the fact that learning begins with the learner. As we know, learners are people. They not only think, but also have feelings. Here comes the role of other factors such as affective variables (motivation, attitudes, anxiety ...) which are said to influence foreign language learning. Among the affective explanations, recent attention has been given to the role of anxiety (Horwitz et al., 1986). Aida (1994) states that increasingly, research studies designed to determine the effect of anxiety in the classroom have indicated that anxiety is common among students. Furthermore, a recent body of literature suggests that high level of foreign language anxiety interfere with foreign language learning (Bailey, Daley, Onwuegbuzie, 1999). As such, research into the correlates

of foreign language anxiety promises to aid both teacher and learners in bridging the gap between our desire to teach and learn foreign languages and our ability to do so.

In the meantime, it appears that little research to date has investigated the relationship between college students learning strategies and their level of foreign language anxiety, despite several researchers' suggestions that this area be studied (Aida, 1994; Young, 1991). Accordingly, this study is an attempt to find an empirically justified answer to following questions:

1) Is there any relationship between level of anxiety and the extent of strategy use?
2) Do the learners who have a relatively higher anxiety differ significantly from those who have a relatively lower anxiety, based on the extent of strategy use?
3) What types of learning strategies do learners with high language anxiety report using?
4) What types of learning strategies do learners with low language anxiety report using?

For the first and second questions, a null hypothesis is adopted. Actually, the researcher found no study addressing this specific relationship, so it was preferable to be conservative and not to take any direct hypothesis. The hypotheses adopted are:

1) There is no significant relationship between level of language anxiety and the extent of strategy use.
2) There is no significant difference between those learners who have a relatively higher anxiety and those with relatively lower anxiety, based on the extent of strategy use.

The third and fourth research questions are purely descriptive and do not pose any relationship between variables, hence, no hypothesis stated for them.

1.1 Language learning strategies

Learning strategies are steps taken by the learner to aid the acquisition, storage, and retrieval of information (Rigney, 1978, cited in Nyikos and Oxford, 1993). Strategies are referred to as learning techniques, behaviors, actions; or learning- to-learn, problem solving, and study skills. No matter what they are called, strategies can make learning more efficient and effective. Oxford (1990) defines strategies like this: "learning strategies are specific actions taken by the learners to make learning easier, faster, more enjoyable, more self- directed, more effective and more transferable to new situations" (P.8).

Based on Oxford's (1990) model, strategies are divided into two major classes: direct and indirect. These two classes are subdivided into a total of six groups (memory, cognitive, and compensation under the direct class; metacognitive, affective, and social under the indirect class). Each of these categories is subdivided to ones that are more detailed. Further, Oxford and Crookall (1989) define these key terms as follow:

- Cognitive strategies: skills that involve manipulation or transformation of the

language in some direct way, e.g., through reasoning, analysis, note taking, functional practice in naturalistic settings, formal practice with structures and sounds, etc.

- Memory strategies: techniques specifically tailored to help the learner store new information in memory and retrieve it later.

- Compensation strategies: behaviors used to compensate for missing knowledge of some kind e.g., inferencing (guessing) while listening or reading, or using synonyms or circumlocution while speaking or writing.

- Metacognitive strategies: behaviors used for centering, arranging, planning, and evaluating one's learning. These "beyond- the- cognitive" strategies are used to provide "executive control" over the learning process.

- Affective strategies: techniques like self- reinforcement and positive self-talk that help learners gain better control over their emotions, attitudes, and motivations related to language learning.

- Social strategies: actions involve other people in the language learning process. Examples are questioning, cooperating with peers, and developing empathy.

1.2 Foreign language anxiety

A growing body of research has demonstrated that language anxiety is the specific type of anxiety that is most closely related to the acquisition of a foreign language (Horwitz et aI., 1986; MacIntyre and Gardner, 1989, 1991). In other words, investigators, recognizing the distinction between language anxiety and other forms of anxiety have suggested that the anxiety experienced in the course of learning a foreign language is specific and unique (Horwitz al., 1986; MacIntyre and Gardner, 1989).

In presenting their recent theory, Horwitz et al. (1986) propose three interrelated processes underlying foreign language anxiety. Communication apprehension, test anxiety and fear of negative evaluation.

First, a form of communication apprehension operates that is specific to second/ foreign language contexts. The unique component of this apprehension is the metacognitive awareness that, as a speaker and a listener, full comprehension of foreign language message is not possible. Therefore, the potential for frustrated or aborted communication is always present.

The second aspect involves worrying over the frequent testing and examination in a language classroom.

Fear of negative evaluation is the third process and is more broadly based than are the previous two. Evaluation, in this case, refers to both the academic and personal evaluation, made of students on their performance and competence in the target language. Teachers and peers alike listen to each utterance to "correct" mistakes. Adults especially can experience apprehension because they cannot present themselves in the new language as they can in their native language.

1.3 Limitations and delimitations

To make the process of study manageable, this study was delimited to freshmen. Therefore, studies exploring relationship between anxiety and learning strategies at more advanced level might yield results that are more significant. In addition, research with a larger number of participants than that of the present study may confirm the findings.

Concerning limitation, the point which is worth mentioning is that on the basis of the discussion made with experienced psychologists, the researcher came to the conclusion that characteristics of human beings or personality characteristics cannot go through statistics like that of mechanical phenomena. In fact, different aspects of personality interact with each other. As individuals quantitatively differ from each other in the degree of anxiety experienced, they differ from each other in etiology and quality of anxiety experienced as well. That is, the anxiety experienced by every individual depends on different aspects of personality, prior life experiences and biological conditions. Thus, anxiety experienced by every one differs from that of other individual from so many aspects.

In summary, Oller in conjunction with Perkins (1981, cited in Sparks and Ganschow, 1991) describes the "special importance" that affective variables hold in L2 learning, but cautions that theories of affective variables are "... no more or less empirically secure than the measures of affect are valid" (P.5). They argue that quantification of affective variables is "necessarily inferential and indirect" (P .5).

In spite of the above-mentioned limitations, it should be admitted that there has been an increase in evidence that validates Horwitz et al. (1986) theory of foreign language anxiety (Young, 1991). Horwitz et al. (1986) report evidence in support of the theory as well.

Aforementioned points are true for Language Learning Strategy Inventory (Oxford, 1990) as well. Oxford (1990) herself maintains: "At this stage in the short history of language learning strategy research, there is no complete agreement on exactly what strategies are, how many strategies exist, how they should be defined, demarcated, and categorized, and whether it is - or ever will be- possible to create a real, scientifically validated hierarchy of strategies ... " (P.17). She accepts that despite problems in classifying strategies, the experience of many teachers indicates that her strategy system is a very useful way to examine such strategies.

2 Method

2.1 Participants

Participants for this study drawn from freshmen in English-as-a-Foreign-Language at Tehran (n=24) and Allameh Tabatabaee (n=22) universities. Forty-six students (thirty-two females and fourteen males) completed the questionnaires designed for this study. There were more than ninety students, who received questionnaires, but just fifty-eight of them returned them back, and out of this number, twelve were incomplete. Therefore, only data obtained from forty-six students were used for analysis. Moreover, the ages of respondents ranged from 18 to 24 (M=20.2, SD=3.8).

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The sample may be considered representative of typical Iranian students, at this age range, field of study and year of study, while having different social, economic and cultural backgrounds.

2.2 Design

It should be noted that this study is a descriptive one. As a result, the design of the study is ex post facto. In this design, the researcher has no control over what has already happened to students. As Hatch and Farhady (1981) maintain:

"Correlation designs are the most commonly used subset of ex post facto designs. In correlational designs, a group of students may give us data on two different variables. Since there is no causal relationship between the two variables, the distinction between independent and dependent variable is not well defined. It is arbitrary to call one or the other the independent variable. However, it is usually the case that the investigator may be more concerned with one than the other and may therefore label the first the independent variable and the second the dependent variable" (P.27).

Accordingly, in this study foreign language anxiety has been taken as independent variable and learning strategies as dependent one. The other way, that is looking at anxiety as dependent and strategies as independent could be considered on later studies.

It can be noted that, at first, the relationship between anxiety and learning strategies may appear simple; learners who are highly anxious are likely to less frequently use strategies. However, the issue quickly becomes highly complex. Not only may high anxiety lead to less use of strategies, but less strategy use probably leads to high anxiety as well!

Nevertheless, correlational nature of this study prevented the researcher from inferring any causality between variables.

2.3 Instrumentation

Two paper-and-pencil instruments were used for this study: the "Foreign Language Classroom Anxiety Scale" (FLCAS) for measuring anxiety, and the "Strategy Inventory for Language Learning" (SILL), a self-report of preferred language learning techniques.

The first instrument of the study consisted of two parts. The first part contained thirty-four items developed based on Horwitz's et al. (1986) "Foreign Language Classroom Anxiety Scale" and translated into Persian language to prevent impact of English language proficiency (Cronbach alpha =.94).

Each of FLCAS items was answered on five-point Likert Scale, ranging from a) "strongly disagree", to e) "strongly agree".

For each participant an anxiety score was derived by summing his or her rating of the thirty-four items. When statements of the FLCAS were negatively worded, responses were reversed and recorded, so that in all instances, a high score

represented high anxiety in English classroom. The second part of the anxiety questionnaire consisted of some open-ended questions. As Seliger and Shohamy (1989) maintain, "It is possible, to use different types of questions, open and closed, in the same questionnaire" (P.173).

The second instrument of the study is the Persian version of SILL (Oxford, 1990) which was translated and validated by Tahmasebi (1999) (Cronbach alpha = .77). It is again a Likert-Scale measure designed to assess the frequency with which respondents use a variety of strategies for foreign or second language learning. The SILL four-point scale ranged from "never" to "always".

The original form of the SILL in English had classified the strategies into headings and related subheadings, but in Persian version, Tahmasebi (1999) scrambled the classification so that no two adjacent strategy items belonged to the same category, otherwise it could have affected responses of students.

2.4 Procedure

After translating the FLCAS, it was shown to few psychologists to ensure its content validity and to prevent probable psychological problems, so that items were investigated from characterological and psychological views. Then through pilot study, students were asked to answer the questionnaire, and to ask if they did not understand the exact meaning of the items. Accordingly, FLCAS underwent some changes.

Then, participants were given the FLCAS along with SILL and were instructed to complete the battery of instruments at home and to return them within a week. Meanwhile, some students completed the questionnaires during their class time and it took about 30 minutes. The guarantee of anonymity, and the fact that FLCAS and SILL scores were not to be shown to students' professors, probably contributed to the apparent honesty of respondents.

2.5 Data analysis

After the administration of the questionnaires, the data were collected and analyzed to the following statistical methods:

1) To determine validity of FLCAS, item analysis was applied, calculating the correlation coefficient of each item with the whole battery.

2) Statistical check for reliability of FLCAS, using Cronbach alpha was run. It should be mentioned that Cronbach alpha, a measure of internal consistency is used to estimate reliability coefficient in continuous data such as Likert-type scale of the FLCAS.

3) Phillips (1992), Onwuegbuzie et al. (1999) and Aidas' (1994) in their studies, all used Pearson product-moment correlation to determine correlation between foreign language anxiety and the selected variables such as course grade, oral exam grade, etc ... Accordingly, in this study Pearson correlation was computed between the FLCAS and SILL.

4) For answering the second question of the study, each student was classified

into either a high anxiety group or a low anxiety group by a median spilt procedure, based upon his or her total score on the FLCAS.

5) Then, since the scores were normally distributed, t-test was conducted to compare and find the difference between means of these two mentioned groups on their SILL.

6) For answering the third question of the study, mean strategy use in each strategy group were computed for high anxiety students, to find main kinds of strategies favored or avoided by this group.

7) Preceding procedure was used for low anxiety group as well, that is, mean strategy use in each strategy category were computed for this group to find main kinds of learning strategies favored or avoided by low anxiety group.

Throughout the study, to determine statistical significance a standard of p≤05 was used.

3 Results

To ensure the validity of Foreign Language Classroom Anxiety Scale (FLCAS), correlation between each item and the whole battery was calculated. Table 1 presents this.

Table 1. Correlation Coefficients of Each Item on FLCAS with the Whole Battery

Item	r	item	r	item	r
Item 1	.73****	Item 13	.67****	Item 25	.63****
Item 2	.63****	Item 14	.49***	Item 26	.71****
Item 3	.69****	Item 15	.64****	Item 27	.71****
Item 4	.74****	Item 16	.81****	Item 28	.51****
Item 5	.36**	Item 17	.56****	Item 29	.55****
Item 6	.2	Item 18	.74****	Item 30	.61****
Item 7	.69****	Item 19	.4**	Item 31	.63****
Item 8	.35**	Item 20	.63****	Item 32	.77****
Item 9	.76****	Item 21	.42**	Item 33	.44**
Item 10	.59****	Item 22	.39**	Item 34	.59****
Item 11	.33*	Item 23	.73****		
Item 12	.61****	Item 24	.6****		

(2-Tailed significance)
*P≤ .05, **P≤.01, ***P≤.001, ****P≤ .0001

All items except item 6 had a significant correlation coefficient with the whole battery (item six: During class, I find myself thinking about other things). However, logic should be applied for the inclusion or exclusion of this particular item. The researcher decided, in spite of its low coefficient, not to exclude this item. In fact, this item should have been developed based on some psychological aspects. According to Farhady (1995),"if an item, for one reason or another, must be included in a test, in spite of its poor characteristic, the test developer may keep that item"(P.l06). Meanwhile, internal consistency of the whole battery was very high. With participation of forty- six students, the present study yielded internal consistency of .94 (M= 93.13 and S.D. = 26.03), using Cronbach alpha coefficient.

The reliability, obtained in this study was very similar to those of Horwitz (1991, cited in Aida, 1994) and Aidas' (1994).

Table 2. Reliabilities of the FLCAS in Three Studies

	Present study	Horwitz et aI., 1991	Aida, 1994
Sample size	46	108	96
Students status	first year	first year	first year
Language	English	Spanish	Japanese
Cronbach alpha	.94	.94	.93
Mean	93.1	94.5	96.1
Standard deviation	26.01	21.4	22.1

The mean of this study, 93 .1, was slightly lower than those of Horwitz and Aidas'. It may suggest that students learning English are less anxious in comparison to those learning Japanese or Spanish as a foreign language. However, standard deviation is higher, meaning that the group is more spread. Nevertheless, more sample size may produce less standard deviation, or more mean score.

To answer the first research question, (is there any relationship between level of anxiety and the extent of strategy use?), since the two variables of the study were continuous, thereby, the use of Pearson moment correlation has been justified. Table 3 below presents the correlation between foreign language anxiety and extent of strategy use. It can be seen that foreign language anxiety negatively correlated with extent of strategy use.

Table 3. Correlation of FLCAS and SILL

	r
Pearson correlation	- .5****

(2- Tailed significance)
*P ≤ .05, **P ≤.01, *** P ≤.001, **** P ≤.0001

The finding supports an inverse relationship between language anxiety and extent of strategy use. Students who expressed more anxiety tended to use strategies less frequently than their less anxious classmates did. The common variance between the two questionnaires found to be .25.

In answering the second research question, (is there any significant difference between high and low anxious students according to the extent of their strategy use?), first, each student was classified into either a high or low anxiety group by a median split procedure, based upon his or her total score on the FLCAS. The median score of anxiety for this sample was 94. Therefore, students with 94 scores and above have been considered as high anxiety group and students with scores lower than 94 have been considered as low anxiety group. Then t- test was conducted to investigate the significant difference between groups on their strategy inventory.

High anxiety group had a mean of (M= 74.25, S.D. =18.3, n=24) on their SILL, and low anxiety group had a mean of (M= 114, S.D. =13.7, n=21) on their

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SILL.

For the equal variance, t- value found to be 8.28 which is significant at P= .0001. Table 4 below presents the results.

Table 4. T-test for SILL of High and Low Anxiety Groups

	t-value	df
Equal variance	-8.28****	43

(2- Tailed significance)
*P≤ .05, **P≤.01, ***P≤.001, ****P≤ .0001

Further, the differences between each strategy category for high and low anxious students were computed. It has been revealed that, in each strategy category the differences were significant. That is, students with high anxiety made less use of strategies in comparison to low anxiety group. Table 5 shows the results:

Table 5. T-test in Each Strategy Category Between High and Low Anxiety Groups

Language learning strategies	High-anxiety		Low- anxiety		t-value
	Mean	S.D.	Mean	S.D.	
Memory	20.36	5.03	23.81	4.37	2.35*
Cognitive	31.2	5.97	37.78	5.04	3.71***
Compensation	12.80	2.80	16.69	2.67	4.71****
Metacognitive	24.1	5.03	29.37	4.23	3.73***
Affective	12.57	3.24	14.75	2.32	2.61*
Social	13.36	3.9	17.77	2.79	4.19****

(2- Tailed significance)
*P≤ .05, **P≤.01, ***P≤.001, ****P≤ .0001

Therefore, low anxiety group made use of strategies more frequently. As it can be seen, mean strategy use within each strategy category is higher for low-anxiety students compared with that of high- anxiety students.

To answer the third research question (which types of strategies do students with high anxiety report using?), descriptive statistics (mean) was used. Table 6 shows the mean strategy use in each of these categories for the high- anxiety group. All means for the six strategy categories fell within the range of 2.09 to 2.67, which is defined by oxford (1990) as low to medium use. The metacognitive category had the highest mean, followed by memory, cognitive, social, compensation, and affective at the end.

Table 6. Mean Strategy Use in the Six Strategy Categories by High-Anxiety Students

Strategy category	Mean	Standard Deviation	Rank order of usage
Memory	2.26	.55	2
Cognitive	2.22	.42	3
Compensation	2.13	.46	5
Metacognitive	2.67	.55	1
Affective	2.09	.54	6
Social	2.22	.65	4

Cognitive and social strategies gained the same mean (M=2.22), but their standard deviations were different. Because cognitive strategies had lower S.D., we may say that high- anxiety students use cognitive strategies more than social strategies.

Fourth research question was that: what types of learning strategies do learners with low anxiety report using? Table 7 shows the mean strategy use in each of these categories for the low-anxiety group. Although there were differences in levels of use of strategy categories, all means for the six strategy categories fell within the range of 2.45 to 3.26, which is defined by Oxford (1990) as low to high use. Again, the metacognitive category had the highest mean in this low-anxiety group (like high-anxiety group), followed by social, compensation, cognitive, memory, and affective (again at the end).

Table 7. Mean Strategy Use in the Six Strategy Categories by Low-Anxiety Students

Strategy category	Mean	Standard Deviation	Rank order of usage
Memory	2.64	.48	5
Cognitive	2.69	.36	4
Compensation	2.78	.44	3
Metacognitive	3.26	.47	1
Affective	2.45	.38	6
Social	2.96	.46	2

Among the six categories of SILL matacognitive strategies were found to be the most frequently used by low-anxiety and high-anxiety groups. Further, the lowest frequency was equal for both groups as well, and that was affective strategies. Although, the most frequently and the least frequently used strategies for high and low anxiety groups were the same, rank orders of usage for other strategies were different in two groups.

There were some open-ended questions at the end of FLCAS, which the researcher found worth mentioning their results: %61 of students reported that they feel anxious while speaking English in the class, on the other hand, just %39of students reported having no anxiety, while speaking English (n=41).

Further, those who had anxiety reported forms of their anxiety as such: "I forget whatever I know", "I speak with a low voice" (then nobody could hear me!) "I want to end up my speech very quickly", "I get confused". These were the common manifestations of anxiety among anxious students.

In addition, in answering the reasons of their anxiety in English class, they reported following reasons behind their anxiety:
1) fear of making mistakes
2) worry over not speaking and pronouncing accurately
3) worry over being laughed at by other students
4) presence of more advanced students in the class
5) fear of having to speak without prior preparation
6) quick speaking of the instructor

7) instructor's frequent correction, demand for quick answer and not waiting for the answer

8) instructor's continuous questioning

9) fear of not having good command of the language

       Almost all (n=37) students reported not having the chance of meeting a native speaker of English. However, %90 of them had positive attitude toward speaking with a native speaker. Just %10 of students reported fear of being negatively evaluated by native speakers while speaking English.

       Finally, %41 reported fear of testing and %58 found testing not to be frightening (n=39).

       The results of this study revealed that a fair amount of anxiety existed in English classrooms. Further, the results corroborated previous research on language anxiety. As such, the first null hypothesis of the study was rejected at .0001 level of significance (r = -.5, P≤ 0001). However, the moderate correlation in the study may be due to compressed range of students' year of studying English (first year).

       On the other hand, rejecting any association between anxiety and extent of strategy use based on moderate correlation seems to ignore the human element within the anxiety / language-learning framework. Why does the question of their relationship still seems so intriguing on an intuitive level ? It is because anxiety is important from a psychological viewpoint, even if only modestly supported by statistical data. Moreover, as Hatch and Farhady (1981) maintain: "It is always desirable not to depend on figures without using logical reasoning as well. A correlation coefficient may be very high but meaningless, or it may be fairly low and still meaningful" (P.208).

       The second null hypothesis of the study was rejected too. There was a significant difference between high-anxious and low-anxious students, based on their performance on SILL. (T-value = 8.28, d.f. = 43, p≤.0001). This meant that high-anxiety students significantly made less use of strategies than those who were less anxious. Further, within each strategy category the differences were significant, as well.

       Then, it was found that the rank orders of strategy use were different for high and low anxiety groups. However, the most and the least used strategies for both groups were the same. Both groups used metacognitive strategies most often and employed affective strategies least often. As noted earlier, even within these strategies high anxiety students made significantly less use, compared with low anxiety students.

       High - anxiety student reported metacognitive strategies as being the most frequently used, falling in the medium range of use based on Oxford (1990), while other strategies fell in the low range. It is worth mentioning that, although, high-anxiety students used memory, cognitive, and social strategies at low level, the story is to a worse degree for compensation and affective strategies. They showed inhibition in using these strategies. Thus, there is a pressing need on the part of students to be instructed and trained (directly or indirectly) about employing memory, cognitive, social, compensation, and affective strategies, specially the last two (compensation and affective).

Respectively, low-anxiety students reported using metacognitive, falling in high range of use, and social, compensation, cognitive, and memory strategies, falling in the medium range of use (based on Oxford, 1990). For this group just affective strategies fell in the low range of Oxford (1990) classification, showing that all students (no matter how high or low anxious they are) need instruction on employing affective strategies. The reason is that, even those called low-anxiety group, were named this compared with high-anxiety students. They themselves have some degree of anxiety, and effective use of affective strategies would help them enjoy the process of learning English more than before.

Therefore, instructors should make students aware of different forms of strategies and opportunities and tell them that strategies are not limited to just metacognitive ones. Students also have to examine other strategies to become actively involved in the process of their own learning.

4 Conclusions and Implications

This study described the relationship between level of anxiety specific to foreign language learning and strategy use. It was indicated that anxiety, negatively correlated with level of strategy use. There are three possible ways of looking at strategies and their relationship with anxiety. The first is to see them as the outcomes of decreased anxiety, in which case there is no need to investigate them, rather to look at what helps students lower their anxiety. The second is to see them as having a unidirectional causal role in decreasing anxiety, but there is no strong evidence for this yet. The third is to accept the view that, the relationship between the two is mutual, that causality is bidirectional.

Meanwhile, taking language pedagogy and learning into account, we may notice that anxiety is not just an internal, private phenomenon generated by individual student. A student's anxiety is affected by external variables (teaching and testing practices, peer interaction, overall task requirements and the instructional environment). Since a low-stress language learning environment is believed to facilitate acquisition of the foreign language (krashen, 1982), encouraging a relaxed atmosphere in the classroom may be a first step in alleviating anxiety. Teachers of foreign languages have an important role in lessening classroom tension and creating a friendly, supportive atmosphere. They should acknowledge feeling of anxiety as legitimate and attempt to build students' confidence and self-esteem in their foreign language ability via positive reinforcement and empathy. In this respect, instructors should be especially sensitive when they are correcting student errors made in the target language and should remind students that language learning is a lengthy procedure and errors are a natural part of that process.

In addition, instruction in the use of appropriate strategies is needed for the language learning process to be effective and to compensate for deficiencies created by anxiety arousal. Explicit training in affective strategies can help students manage anxiety related to language learning. Research suggests that when students are informed about the use, monitoring, and evaluation of specific strategies,

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performance improves (Oxford and Crookal, 1989). Modeling appropriate strategies while presenting particular language points, is perhaps the best approach to strategy training (Nyikos and Oxford, 1993). Such integration reduces ambiguity about how and when to apply strategies.

This study has some implications for language testing as well. As mentioned already anxiety may also interfere with the student's ability to demonstrate the amount that she or he does know. That is, the student may know the material but may forget it or "freeze up" on a test. Then, if tests are here to stay, the instructors should provide relaxed environment to get the best result out of testing.

Further, making students aware of different strategies will help them both in studying the materials and in taking the test. In this respect, particularly test taking strategies need to be introduced. Thus, strategies have great potential in assisting students in all stages of their learning.

In addition to important implications for language learning, teaching, and testing, this study also suggests areas where further research is needed. It could be replicated in different settings. In the meantime, a qualitative study of students' affective reaction to using strategies is also clearly in order. The reason is that observations and interviews provide rich, unquantitative detail that can help explain the process.

Moreover, in this research study learners' levels of anxiety and strategy use were analyzed, simply providing a general idea of the negative association between the two at one moment in time. However, the effect of one (the extent of use of leaning strategies) on the other (language anxiety) was not measured. To learn more about this relationship, a much narrower focus is needed.

Finally, perhaps the most provocative areas of study are foreign language strategies. This study has suggested that language anxiety has a negative correlation with level of strategy use, but how is anxiety related to strategies of related skills (e.g., listening, reading, writing, and speaking)? What are the potential interactions between anxiety and other personality variables such as learners' beliefs about their own language ability, self-esteem, learning style and motivation? Are certain learning strategies associated with certain psychological factors? How can students be trained to use appropriate strategies? These and other questions are open to investigate and may interest researchers in foreign language learning as well as classroom practitioners. However, as the issues become ever more complex, not only funding, but also collaboration on joint research projects becomes necessary.

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