The Relationship between Language Learning Anxiety, Motivation, Autonomy and Language Proficiency of Iranian High School Students

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Abstract: *As few studies have investigated the influence of anxiety, motivation, and autonomy on class proficiency or language success, the present study aimed at finding the relationship of each of these factors with language achievement of the students. To this purpose, 207 students were invited from Golestan high school in Ramian, in the north of Iran. Their age ranged from 18 to 22 years. In one session they filled out the anxiety questionnaire, in the next session they completed the motivation questionnaire, and in the third session they answered the item in the autonomy questionnaire. At the end of the term the participants' final scores were recorded. As to the final scores and test performance, there was a positive relationship between anxiety and test performance, no relationship between motivation and test performance, and also no relationship between autonomy and test performance. Both high-stakeholders and low-stakeholder may benefit from the findings of this study.*

Keywords: *motivation; anxiety; autonomy; EFL learners*

Introduction

A fundamental value of research done in second or foreign language learning has revealed that the single differences in learners are caused by both cognitive and affective agent. As early as the 1920s, researchers (e.g., Henmon, 1929) first start to discuss cognitive factors such as language learning facility, learning project and mentality; however, in the last four decades, second language acquisition researchers (e.g., Gardner et al., 1976; Horwitz et al., 1986) have contended that researching individual differences that are affective in nature, like motivation, anxiety and self-secrete, is just as important as researching the cognitive variables like intelligence, language learning aptitude, and learning strategies.

They have realized that these two sets of factors work together to influence both the process and the outcome of language acquisition. It is believed that each language learner is unique and works with a distinct combination of cognitive and affective variables that determine the process of second language acquisition, Gardner, Day and MacIntyre (1992) hypothesize that "there are probably as many factors that might account for individual differences in attainment in a second language as there are individuals" (p. 212). This is the reason why much second language research has put an emphasis on individual differences in recent years.

Schumann (1994) strives to shed some light on the connection between these two sets of variables, the affective and cognitive, by quoting Mishkin and Appenzeller (1987), who show that the amygdale, a part of the impermanent lobe in the brain, "assesses the emotional significance and motivational relevance of stimuli; this appraisal then influences attention and memory" (p. 233). So it is displayed that linguistic input, which is a form of stimulus, is first evaluated for its emotional significance and motivational connection to the learner before it can be processed by the brain. This testing determines whether or not the linguistic input is accompany to and stored in memory.

Considerable research in the area of second language learning reveals that emotions play an important role in language acquisition (e.g., Horwitz, 2001). Tomkins (1970) asserts that human beings are always experiencing some sort of feeling in varying degrees, and strong emotion can disorder cognitive and physiological processes. This could account for the fact that some language learners produce better when they experience positive emotions such as motivation and enthusiasm, or perform poorly when they have negative emotions such as anxiety or low self-esteem. MacIntyre and Gardner (1994) concur that "some of the strongest correlations between affective variables and achievement measures involve anxiety" (p. 284). Several studies have displayed that anxiety causes cognitive interference, resulting in significant negative correlations between language anxiety and classification (e.g., Gardner, Moorcroft, & MacIntyre, 1987; Phillips, 1992).

As a product of the growing awareness that emotions play an important role in language learning, researchers, since the 1970s, have put an emphasis on the affective variables of a language learner, such as anxiety (e.g., Horwitz, Horwitz & Cope, 1986; Saito & Samimy, 1996) and motivation (e.g., Dornyei & Schmidt, 2001; Gardner, Tremblay & Masgoret, 1997). In the last two decades researchers have also turned their examination to the variable of autonomy (e.g., Benson, 2001; Little, 1991; Littlewood, 1996). They have shown that both anxiety and motivation are good predictors of achievement in language learning, and that motivation and autonomy portion a relationship. For these reasons, this study attempt to investigate and infuse some light on the relationship between the three affective factors of anxiety, motivation, autonomy and language performance of high school students learning English as a foreign language.

Several studies have found an opposite relationship between anxiety and language success of L2 learners, but in some cases it has been noticed that anxiety encourages a student to work harder, resulting in better class proficiency (Horwitz, Horwitz & Cope, 1986; Phillips, 1992; Trylong, 1987). With respect to motivation, document shows that motivated students perform better in the classroom than those who are unmotivated. MacIntyre and Gardner (1991) are of the idea that both anxiety and motivation influence language learning and are good predictors of success. Their data display that the two variables have an opposite relationship, such that the higher the levels of anxiety explained by the learners, the less motivated they tend to be. Finally, these students put less try on their learning process, which often results in lower class grades.

The similar studies show, however, that middle levels of anxiety can act as a motivation and stimulate the learners to work harder resulting in higher grades. Recently, researchers have examined the relationship between motivation and autonomy. Dickinson (1995) points out that when learners get involved in their own learning process, they learn more effectively by finding their own motivation.

Spratt, Humphreys and Chan (2002) speculate whether autonomy precedes motivation or motivation precedes autonomy in language learning. In other words, they question whether students must first be motivated in order to develop and show signs of being actively and independently involved in their learning, or whether they should first be autonomous, which will affect their motivation levels to increase. While most investigations reveal that motivation and autonomy are distinct factors, views differ on whether students need to first be motivated or autonomous in order to be better language learners.

Research Questions

RQ1. Is there any correlation between the anxiety and students' performance, as measured by the English test?

RQ2. Is there any correlation between the motivation and students' performance, as measured by the English test?

RQ3. Is there any correlation between the autonomy and students' performance, as measured by the English test?

Methodology

Participants

This study was conducted at Golestan high school in Ramian, in the north of Iran. The 207 participants were studying at high school during the academic year 2013; they were female and male students. All the participants were high school students ranging in age from 18 to 22. They had been learning English for at least four years. A summary of the relevant demographic information of the participants in this study is provided in Table 1.

Table 1: Relevant demography of students (total N=207)

Gender	Number of students	Percentage
Female students	127	61%
Male students	80	39%
Age		
between 18-22	207	100%

Instruments

Foreign Language Classroom Anxiety Scale (FLCAS)

The questionnaire used to scale the levels of anxiety in foreign language learners is the Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz, Horwitz, and Cope in 1986. The FLCAS is a 33-item instrument that distinguish the degree to which students feel anxious during language classes by distinguishing their correlation apprehension, test anxiety, and fear of negative evaluation in the foreign language classroom. Each item is an expression followed by a five-point Likert response scale, with which the participants indicate the degree to which they agree or disagree with each of the items. Items on this scale are both positively and negatively worded. The total possible score ranges from 33 to 165, with the higher scores indicating higher levels of foreign language anxiety. To determine if the anxiety experienced by the participants in this study was state anxiety rather than trait anxiety, seven extra Likert response questions were added to the 33-item FLCAS, making it a 40-item questionnaire. These items were adapted from the General Anxiety Scale Items by Spielberger (1972), and comprise numbers 34 to 40 on the questionnaire.

Attitude/Motivation Test Battery (AMTB)

The questionnaire used to measure levels of motivation was the modified Attitude/Motivation Test Battery (AMTB), originally developed by Gardner (1985) and revised by Gardner, Tremblay and Masgoret in 1997. This instrument studies such factors as state toward learning English, wish to learn English, and motivational intensity in learning English. Like the FLCAS, each item here is in addition followed by a five-point Likert response scale for participants to display the degree to which they agree or disagree with the statements. Again, some of the items on this scale are also both positively and negatively worded.

Questionnaire on Autonomy

The students' levels of autonomy in learning English were determined by using the questionnaire formulated by Spratt, Humphreys and Chan (2002). This questionnaire was strongly influenced by Holec's (1981) definition of autonomy, and the researchers attempted to incorporate the notions of "ability" and "responsibility" in the five areas of their questionnaire, which aims to assess students' readiness for learner autonomy in language learning by examining their views of their responsibilities and those of their teachers, their confidence in their ability to operate autonomously. It also investigated their actual practice of autonomous learning in the form of both outside and inside class activities.

English Test

The English test as an achievement test was administered at the end of the year as their final test. The grades achieved by the students on their English course were considered as their

performances. Their grades from this test were correlated with other instruments in the present study.

Procedure

Permission was obtained from the high school to conduct this study. Permit was also obtained from the educator of the English course to visit their classes to collect the data. The researcher set the time and plan for data collection to the educator, and asked for time in class to manage the English test and three questionnaires on anxiety motivation, and autonomy. Then, the researcher met the classes two days before the performance of the first instrument to recommend the term-long project to the students and enroll their help. They were not told that the affective factors of anxiety, motivation, and autonomy were being researched. The participants were certain that their information would remain confidential and that their intention to participate (or not) would not affect their class grade, and were then asked to sign an agreement form. This caution was taken not only because the school rules require it but also with the attempt of making the students feel convenient with the whole procedure, to give them an opportunity to ask any questions, and to detract any anxiety that could be caused by having to deal with the unexpected.

During week 5 of the term, the three instruments which were questionnaires on anxiety, motivation, and autonomy were administered to the students. Data were collected during week 5, and not earlier in the term, because it was hoped that by this time the students would have had an opportunity to defeat any initial trouble and anxiety they might have experienced due to being in a new class with new classmates and instructor. It was hoped that any anxiety they felt during week 5 would be directly related to their language learning experiences in general, as opposed to specific new-semester factors. The time allotted for the questionnaires was about an hour although there was some freedom with regard to time limitation.

Data Analysis

The research questions were answered quantitatively by using statistical tests to evaluate the significance of the collected data. In order to answer the research questions, which sought to find the correlation between the three affective factors and students' performance, the Spearman signed-rank correlation test was run with the scores on anxiety, motivation, and autonomy.

Results

With regard to the first research question, "Is there any correlation between the anxiety and students' performance, as measured by the English test?", the Spearman rank-order correlation was used. Table 2 below shows the result of the Spearman rank-order correlation.

Table 2: Result of the Spearman rank-order correlation

Correlations

			Anxiety	Test Performance
Spearman's rho	Anxiety	Correlation Coefficient	1.000	.370[**]
		Sig. (2-tailed)	.	.000
		N	207	207
	Test Performance	Correlation Coefficient	.370[**]	1.000
		Sig. (2-tailed)	.000	.
		N	207	207

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

The Spearman's Rank Order correlation was run to determine the relationship between anxiety and test performance. There was a very small positive correlation between these two variables, which was statistically significant (r_s(205) = .370, p = .000). Therefore, it can be stated that these two variables are positively correlated.

With regard to the first research question, "Is there any correlation between the motivation and students' performance, as measured by the English test?", the Spearman rank-order correlation was used. Table 3 below shows the result of the Spearman rank-order correlation.

Table 3: Result of the Spearman rank-order correlation

Correlations

			MOTIVATION	Test Performance
Spearman's rho	MOTIVATION	Correlation Coefficient	1.000	-.035
		Sig. (2-tailed)	.	.620
		N	207	207
	Test Performance	Correlation Coefficient	-.035	1.000
		Sig. (2-tailed)	.620	.
		N	207	207

The Spearman's Rank Order correlation was run to determine the relationship between motivation and student performance. There was a very small negative correlation between these two variables, which was expectedly not statistically significant (r_s(205) = -.035, p = .620). Therefore, it can be stated that these two variables are not related to each other.

With regard to the first research question, "Is there any correlation between the autonomy and students' performance, as measured by the English test?", the Spearman rank-order correlation was used. Table 4 below shows the result of the Spearman rank-order correlation.

Table 4: Result of the Spearman rank-order correlation

Correlations

			Autonomy	Test Performance
Spearman's rho	Autonomy	Correlation Coefficient	1.000	-.058
		Sig. (2-tailed)	.	.405
		N	207	207
	Test Performance	Correlation Coefficient	-.058	1.000
		Sig. (2-tailed)	.405	.
		N	207	207

The Spearman's Rank Order correlation was run to determine the relationship between autonomy and student performance. There was a very small negative correlation between these two variables, which was expectedly not statistically significant ($r_s(205) = $ -.058, $p = .405$). Therefore, it can be stated that these two variables are not related to each other.

Discussion and Conclusion

As to the first research question, it could be stated that the two variables were positively correlated. However, Cassady and Johnson (2001) and Alidoost et al. (2013) argue that students with low anxiety perform better on the tests. Teachers should do whatever at their power to reduce the class anxiety as much as possible. This will lead to a more stress-free situation (Saito & Samimy, 1996).

Considering the second research question, Dornyei (1994) believes that motivation is an affective, personal, modifiable factor which exists in all learners; however, the degree is not the same due to individual differences. Highly motivated students tend to perform better on the tasks and tests they receive (Dornyei, 2001).

As to the last research question, it can be stated that autonomy of the learners leads to a more learner-centered classroom (Rivers, 2001). Allwright (1990) has supported that autonomous students are less dependent on their instructors, thus make their way towards better performance and achievement. Therefore, it can be concluded that more autonomous students are expected to do better on the tests.

Pedagogical Implications

As to the class grades, there was a very small positive correlation between anxiety and test performance, which was statistically significant. Cassady and Johnson (2001) argue that students with low anxiety perform better on the tests. Teachers should do whatever at their power to reduce the class anxiety as much as possible. There was also a very small negative correlation between motivation and test performance, which was expectedly not statistically significant. As to the autonomy and test performance, there was a very small negative correlation between these

two variables, which was expectedly not statistically significant. Although students who are more autonomous are expected to perform better on the test, nothing was seen in this research. But generally, teachers should encourage the autonomy of the students as much as possible.

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