The Relationship among Motivation, High School Classroom Stress, and Academic Achievement of Iranian High School Learners

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ABSTRACT

The main focus of this study was to probe the relationship among motivation, high school classroom stress, and academic achievement of Iranian high school learners. Students' motivation was surveyed and analyzed using Instrumental Motivation designed by Kimura et al. (2001) and their classroom stress was measured through the Vulnerability to Stress designed by Miller L. and Smith A. D. (1985). Furthermore, in order to get the participants' academic achievement, their Grade Point Average (GPA) will be taken into account as well as the grade of English course. The results of the Spearman rank order correlation coefficient indicate that there is moderately negative relationship between classroom stress and instrumental motivation. Regarding the relationship between instrumental motivation and academic achievement, motivation was only slightly related to scores on English course. Findings also demonstrated that classroom stress was negatively related to learning English.

Introduction

Academic performance is the main source of decision making about individuals and in most occasions students are judged according to their academic achievement. Hence, it affects individuals' lives in terms of financial, social and educational aspects. Thus, in educational domain, the importance of factors influencing academic achievement has been an appealing subject for researchers, educational psychologists.

Among various elements impacting academic achievement, psychological factors are very crucial. Larsen-Freeman (1986) regarded psychological factors as barriers for learning and asserted that they consequently affect academic achievement. While considering classroom environment and teaching effectiveness, teachers are concerned about the individual differences of learners and the influence of classroom stress and motivation on learners academic achievement.

According to Eggen and Kauchak (1994) motivation is one of the most important psychological concepts in education that act as an force that energizes and directs behavior toward a goal. Anxiety another influential factor is still proven to be a major factor affecting foreign language learning. As Sila (2010) [30] states, "young adolescent students experience language anxiety and this anxiety could have much more adverse effects in their future lives" (p. 89).

In sum, this study revolves on three main points: first, to investigate the relationship between high school students' motivation and their academic achievement. Second, to explore if there is any significant relationship between classroom anxiety and academic achievement, and third, to probe the relationship between motivation and anxiety.

Research questions

The study, therefore, seeks answers to the following question:

1. Is there a significant relationship between motivation and high school classroom stress of Iranian high school learners?

2. Is there a significant relationship between motivation and academic achievement of Iranian high school learners?

3. Is there a significant relationship between high school classroom stress and academic achievement of Iranian high school learners?

Hypotheses:

Null Hypnosis 1: There is no significant relationship between motivation and high school classroom stress of Iranian high school learners.

Null Hypnosis 2: There is no significant relationship between motivation and academic achievement of Iranian high school learners.

Null Hypnosis3: There is no significant relationship between high school classroom stress and academic achievement of Iranian high school learners.

Methodology

Participant

The participants were 120 Iranian high school students who awere learning at Zanjan High Schools, during academic year of 2012-2013.

They were selected by clustered sampling. Their age varies from 14to 18. All of them are girl student. The gender was not considered as a moderator variable.

Materials and Instruments

The participants responded to the following questionnaires:

1. The Items of Instrumental Motivation designed by Kimura et al. (2001) (See Appendix1). This questionnaire contains 14 Likert scale questions with one correct answer.

2. The Vulnerability To Stress designed by Miller L. and Smith A. D. (1985) (See Appendix 2) .This questionnaire contains 34 multiple choice questions with one correct answer. These questionnaires were translated into Persian and they were validated by experts.

In order to get the participants' academic achievement their Grade Point Average (GPA) were taken into account and also their grade of English course.

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Procedure

The Stress and Instrumental Motivation questionnaires were administered to 120 High school learners at Zanjan high schools. First, the Stress questionnaire and then the Motivation questionnaire were administered. The purpose of the survey was to discover the relationship between motivation and high school classroom stress and their association with academic achievement. In doing so, the participants were requested to select the most appropriate answers to the questions. The Instrumental Motivation questionnaire administration was taken approximately 25 minutes and the stress questionnaire was taken 30 minutes. Having collected the two completed questionnaires, the researcher analyzed the data.

Data analysis

In this study, the relationship among instrumental motivation, high school classroom stress, and academic achievement of Iranian high school learners were investigated. In order to find the relationship among these variables Spearman Correlation rank Correlation coefficient were utilized.

Results and Discussion

The Relationship between instrumental motivation *and high school classroom stress*

The main focus of this study was to examine the relationship between motivation and high school classroom stress of Iranian high school learners. In order to determine the strength and the direction of the relationship between these two variables, a Spearman rank order correlation coefficient was used. The results of this analysis are shown in table 1.

Table 1: Correlation between motivation and high school classroom stress

			Classroom stress
Spearman rho	Motivation	Correlation coefficient	-.451
		Sig. 2-tailed	.000
		N	120

As indicated in table 1. The sig value for motivation and classroom stress is below the significant level (i.e. sig=.000, r=.-451, n=120, p<.05), illustrating that there is statistically significant relationship between these two variables. The negative sign of the correlation coefficient shows the direction of this relationship. So there is a negative relationship between these two variables. Therefore, the first null hypothesis stating no relationship between these two variables was rejected.

Relationship between motivation and academic achievement

The second null hypothesis stated that there is no significant relationship between motivation and academic achievement of Iranian high school learners. To test this hypothesis, the researcher conducted a Spearman Correlation coefficient rank order. The results of this analysis are presented in table 2 below.

Table 2.Correlation between motivation and academic achievement

			GPA English scores
Spearman rho	Motivation	Correlation coefficient	.536 .192
		Sig. 2-tailed	.020 .000
		N	120 120

Table 2 illustrates the results of correlation between motivation and academic achievement. As Table 2 shows, Sig. values (p=0.020) for motivation and GPA was nonsignificant indicating that the relationship is not statistically significant. So learners' GPA was not related to their motivation. Regarding the correlation between motivation and scores on English course,

the sig value (p=.000) was below the significant level i.e .05 indicating that the relationship is statistically significant. So the learners' motivation was related to English learning. These finding are consistent with the reviewed literature.

Relationship between high school classroom stress and academic achievement

The third null hypothesis claims that there is no significant relationship between high school classroom stress and academic achievement among Iranian high school learners. In order o demonstrate the relationship between aforementioned variables, the Spearman Correlation was run. Table 3 shows the results of analysis.

Table 3. Correlation between high school classroom stress and academic achievement

			GPA English course scores
Spearman rho	Stress	Correlation coefficient	.852 - .233
		Sig. 2-tailed	.430 .000
		N	124 124

As indicated in the table above, there is no statistically significant relationship between learners' GPA and classroom stress (r=.852, n=124, sig=.430, p>.00). Therefore, the third null hypothesis was accepted. Considering the relationship between classroom stress and scores on English course, the p value was below the significant level (sig=.000, p<.05). The results indicated that classroom stress was related to English learning. The sign of correlation coefficient suggested a negative relationship between aforementioned variables.

Conclusion

Psychological factors impact academic achievement in general and language learning in particular. Krashen (ibid.) in his Monitor Model specifically affective filter, emphasize the effect of lower affective filter in second language learning. He believed that lower affective filter that carries negative attitudes towards learning will enable learners to use the Comprehensible Input.

The findings of this study indicate that there is negative relationship between classroom stress and motivation. Classroom stress decreases motivation and consequently it affects academic achievement and results in academic failure. Hence, providing students with more comfortable, stress free and exciting environment can promote their learning as well as their performance.

Another finding of this study demonstrated that instrumental motivation was related to learning English. This is in line with previous findings on role of intrinsic motivation on second language acquisition (Piaget, 1975).

Regarding the relationship between classroom stress and academic achievement, the findings of the present study suggested that learners' GPA was not related classroom stress, but learning English was negatively related to classroom stress.

This findings postulate that higher classroom stress decreases learning English. These results are consistent with previous researchers' findings. In Krashen (1981)'words "learning a second language seems to be difficult, demanding, and full of stress for learners, especially for adults, because learners have to speak in another language which is not their mother tongue, make lots of mistakes and may face setbacks" (p. 102). Then, learners tackle different psychological factors in the classrooms that influence their learning. So teachers must be aware of these influential factors in learning and try to help

learners in this regard. Incorporating more motivating techniques and activities to the teaching methods can influence effective learning.

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Appendix 1

Items of Instrumental Motivation

Please indicate how much you agree or disagree with each of these statements. Your answers are considered to be highly valuable and will also be kept confidential. Note that there is no right or wrong response to any of the items on this survey.

1. I want to learn English because it is useful when traveling abroad.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

2. I want to learn English because I want to study abroad in the future.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

3. The main reason I am learning English is that my future job requires English language skills.A.*Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree*

4. One reason I am learning English is that I can make friends or correspond with people in foreign countries.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

5. If I learn English better, I will be able to get a better well-paid job.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

Carreira 2004, p. 97_98

6. I study English in order to make English easy in junior high school.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

7. I study English because I think English will be necessary for me when I am an adult.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

8. I study English for a future job.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

9. I study English in order to enter a high school or a university.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

Takagi 2003, p. 69

10. The reason I am learning English is that my future job will require English skills.

a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree

Appendix 2

Rate each item from 1 (always) to 5 (never), according to how much of the time the statement is true of you. Be sure to mark each item, even if it does not apply to you—for example, if you don't smoke, circle 1 next to item six.

	Always	Usually	Sometimes	Rarely	Never
1. I eat at least one hot, balanced meal a day.	①	②	③	④	⑤
2. I get seven to eight hours of sleep at least four nights a week.	①	②	③	④	⑤
3. I give and receive affection regularly.	①	②	③	④	⑤
4. I have at least one relative within 50 miles, on whom I can rely.	①	②	③	④	⑤
5. I exercise to the point of perspiration at least twice a week.	①	②	③	④	⑤
6. I am the appropriate weight for my height.	①	②	③	④	⑤
7. I get strength from my religious beliefs.	①	②	③	④	⑤
8. I regularly attend club or social activities.	①	②	③	④	⑤
9. I have a network of friends and acquaintances.	①	②	③	④	⑤
10. I have one or more friends to confide in about personal matters.	①	②	③	④	⑤
11. I am in good health (including eye-sight, hearing, and teeth).	①	②	③	④	⑤
12. I am able to speak openly about my feelings when angry or worried.	①	②	③	④	⑤
13. I do something for fun at least once a week.	①	②	③	④	⑤
14. I am able to organize my time effectively.	①	②	③	④	⑤
15. I drink fewer than three cups of coffee or tea a day.	①	②	③	④	⑤
16. I take some quiet time for myself during the day.	①	②	③	④	⑤