

Stress: An Impediment to Learning English

Maryam Mehrban¹ & Hossein Pourghasemian²

¹ Department of English, College of Human Sciences, Saveh Branch, Islamic Azad University, Saveh, Iran

² English Language Center, Qom University of Technology, Qom, Iran

Correspondence: Maryam Mehrban, Department of English, College of Human Sciences, Saveh Branch, Islamic Azad University, Saveh, Iran. E-mail: mehr1241@yahoo.com or Pourghasemian@qut.ac.ir

Received: June 6, 2016 Accepted: August 20, 2016 Online Published: December 1, 2016

doi:10.5539/ijel.v6n7p152 URL: <http://dx.doi.org/10.5539/ijel.v6n7p152>

Abstract

The present research aims to study the impacts of stress on learning English among English students in Saveh city. Using descriptive survey method and simple random sampling, the research was completed on a sample population of 60 among all the English learners in Saveh city. The learners have been homogenous in assistance with Preliminary English Test (PET), and then using the standard questionnaire of Ang vo Goran's (2006), the students have been divided into two groups (with stress and without stress). The validity of instruments has been confirmed by the supervisor and the validity was calculated 0.76. An achievement test including 67 questions has been used as the research instrument. The comparative test, which was the most significant result of the research, suggested that stress is an obstacle to learning process.

Keywords: stress, reading skill, learning English

1. Introduction

Learning is a vital principle of the life and the human development depends on their learning. Considering the significance of the issue, the human always has been tried to remove the learning barriers and make a pathway to learn the different topics (Afshari, 2014).

Stress is a kind of physical or psychological which may lead to some changes in the autonomic nervous system and impose some demands on an individual. In case of severe stress or experience or for a long time, it can lead to destroy the one and finally may cause the physical and psychological disorder (Dehqan Nayyeri & Adib hajbaqerey, 2006).

Actually, it is the concentrate power of the students toward the different concepts of learning topics, during the different educational activities which plays the main role. Stress and mental pressure of students are among the important issues which endanger the welfare and lifestyle of individuals with development and expanding the societies. It can be seen more than ever in their lives. The stressor conditions may occur on everyone including the English learners. Also, it can be said that they face more clinical stressor factors. Since, the students experience the stress from the educational environment; also they are subjected to the clinical stressor factors. This is one the factors which lead to an academic and learning failure and emerge the physical and mental disorders (Abazari Farooq et al., 2002).

Stress usually is related to the limitations and demands. It may prevent you to attend your desirable issues and mentions the lack of favorable things. In today's world, the nervous and mental pressure has been a part of the lifestyle of the managers.

Researchers show that stress has been one of the effective factors on the learning process. Furthermore, stress is the reaction of body to these changes in the physical, mental and emotional forms. This is a normal response to be compatible as it helps the individuals to react to the environment. The stress system is a vital system to alert and would be active in case there is a disruption between the expectations from an organ and the reality. The lack of information, losing control, being unpredictable or the psychological response all can make the stress response (De Kloet, Joëls, & Holsboer, 2005).

The responses may have some positive consequences and keep us aware to the risky situations. However, stress may have a negative aspect as well when the one has been facing the stressor challenges, without any relief and rest. The stress without relief leads to the kind of stress that can create the physical symptoms such as headache,

stomachache, high blood pressure, pain in the chest and sleep disorders. The recent research has been indicated that this kind of stress (chronic stress) may block the chemical reactions in the brain which are helpful for learning and memory. The chronic stress also may disrupt the learning development and memory. This is one of the problems for the education professionals (Rahmani et al., 2012).

Stress can be caused by both; the favorable events as well as the events that create crisis in our lives. When a change occurs, we usually experience some level of stress. The stress levels can be high or considerably low. We do not have to let stress stop us from achieving what we want in life. If we can learn to control it, then we will probably have a better chance at succeeding. Some of the impacts of stress are reduced moral, effects on mind and ability of learning. All of them are affected negative and we should omit them. Students can talk about their stresses and worries with advisers or counselors to get some advice. It is better that they interrupt negative thoughts with positive ones (Ice & James, 2007).

The teachers need to learn how to minimize the stressful situations, to train the creativity and learning. The present challenge would be introducing a new educational design to reduce the level of stress hormone (cortisol). To do so, we need to know the factors to control stress first. Therefore, conducting some research about it is a vital issue. The medical and non-medical methods to stress management have been studied (Dimeo, Bauer, Varahram, Proest, & Halter, 2001).

The findings of previous studies highlight the significance of stress. In addition, there has been much research in this area in different sciences since the influence of the stress on the learning process of individuals. More than 3000 papers about the different areas of stress have been published only between 1985 and 1995. Most of the articles have recognized the mental pressure as the most important factor in the learning and education problems and disorders, creation and forming the physical and mental illness and fatality (Farshi, 2005).

The stresses and pressure from the environment have a negative impact on the learning process of individuals, in addition to create some mental and physical disorders, and it works as a pest to reduce the quality of learning (Alvani, 1989).

About the stresses and pressures in education and learning, Alvani (1989) offers that the mental pressures affected the learning and education activities and weakens them. It indicates a feedback which will reflect in the results of the education period and will decrease the level of quality objectives.

The students face a variety of people such as teachers, other students, parents and administrations, etc. in the educational system. They also normally face some pressures in the educational and learning system which will be effective on their efficiency and may prevent the educational duties in the expected learning areas and educational objectives. Therefore, nowadays stress and its impacts on the learning process, English in specific, is one of the controversial issues. Moreover, teachers need to be aware of the stresses in the education areas, in addition to many other issues such as, the latest findings about teaching, the teaching methods, communication, psychology, sociology, etc. So, they would be able to prevent the stress during facing with their students in the classes.

It is obvious that stress management is an important skill and all adults need it, in order to improve themselves as problem solvers and to be more in control of their education. By learning how to identify the stress factors in our life and strategies to cope with these factors we take control of our life. We can identify the source of our stress and choose a strategy to control our stress. Sometimes stress causes to loss the motivation of continuing and will have irreparable damage on person and society (Samter & Gilliam, 2005).

Teachers can create a supportive environment for students. When introducing the concept of stress management to students, it is useful to review the following general behaviors and techniques that will help students manage stress (Looker & Gregson, 2003; Cunningham, 1997).

The present research aims to study the impacts of stresses and pressures on the English learning process which can help the students in the learning environment to have a deeper and more effective learning process, also help the English teachers to conduct their teaching duties with a better motivation and quality and the maximum productivity in the area.

Therefore, the present study has been focused on the stress factor among the learning factors. It is going to study the relationship between the stress and the level of learning. Then, the main question of the article would be; how much the stress factor may have effects on the English students' learning process, and if it can be a barrier to their learning process?

2. Methodology

2.1 Research Method

The present study has been conducted, using the descriptive survey method. The participants in this study were 60 female students in secondary schools of Saveh (one important city in Markazi province, Iran). The reason behind choosing these participants was that they were 16 years old in secondary schools and the sampling method is simple random sampling. In this research the following instruments have been used in this paper:

a. A sample of PET: A sample of PET was considered for 100 students and was used for homogenizing the participants in terms of their general language proficiency at the beginning of the study which covers the four main language skills, reading (35 items), writing (7 items), listening (25 items) and speaking (an interview including four parts). The PET was used in this study that it was a sample of the Preliminary English Test (PET) adopted from “objective PET” by Louise Hashemite and Barbara Thomson (2010), Cambridge University Press.

b. A standard questionnaire: A standard questionnaire was adapted from Ang vo Goran’s (2006) used in this study. This standard questionnaire (Ang vo Goran, 2006) was done with 9 questions and 4 items. A small sample (n=60) answered to these questions in 20 minutes.

c. English achievement test: English achievement test was used in this research. This test comprised 67 items that include (dictation, structure, vocabulary, grammar, dialogue, pronunciation and comprehension) and belonged to Arak education in Iran. Students answered to these questions in 90 minutes.

Achievement test Items according to the seven types:

Dictation	1-11
Vocabulary	12-31
Grammar	32-39
Dialogue	40-47
Structure	48-52
Pronunciation	53-54
Comprehension	55-67

2.2 Procedures

In current study, at the first step, the investigator developed a PET. *The participants of the study were composed of 100 female students in secondary schools.* A sample of PET was used for homogenizing the participants in terms of their general language proficiency at the beginning of the study. The level of students was pre-intermediate and they filled out PET copies. The researcher ranged marks from 45 to 69 and chose 60 students in pre- intermediate level.

As the second stage of the research, the standard questionnaires were administered among participants and they were close-end. A few of them answered the questionnaire after 20 minutes, but most students assigned more time for returning the questionnaire, for twenty-five minutes. Then the collected data was tabulated to be analyzed.

At the end, the researcher used English achievement test and did pre-test in two groups. After one month, the treatment was done in two groups and then post-test was given them, too. The amount of English achievement test from all testers was compared. For considering data normality, the researcher used independent t-test and dependent T-test in this research. Quasi-experiment was designed in this study.

3. The Statistical Methods and the Method of Data Analysis

The present study has analyzed the data, using the descriptive and inferential statistics method including: frequency tables, central index, dispersion indices, achievement test of the groups before and after the test, studying the data normality from the Kolmogorov-Smirnov test, independent sample t-test, Levene’s test of homogeneity of variance between the two groups t-test, etc. The collected data has been analyzed using SPSS.

4. Results

The statistical population of the present study includes all high school students in Saveh city in Iran. 60 people have been selected as a sample and tested for educational stress. After correction the test based on the cut-point (27) of subjects was divided into two groups; with stress and without stress. 22 people were stressed and 28 people were not stressed. At the next step, all the subjects were asked to response to achievement test. Then, the English language has been taught in both groups. At the end of teaching, all the subjects have been tested. Data has been collected and prepared to be analyzed.

This part is going to describe the results, using frequency distribution tables, central index and dispersion indices.

Table 1. The statistical characteristics of achievement test the groups in pre-test and post-test (n=50)

Variable	Pair	group	M	SD	Variance	Min	Max
Achievement	Pre-test	Stress	5.55	2.6	6.6	2	11
		Without Stress	4.5	2.7	7	0	11
	Pos-test	Stress	6.55	3.1	9.8	3	12
		Without Stress	11.96	4.06	16.5	4	20

The above results indicate that the scores of post-test without stress group have increased in comparison with the pre-test while there is not a significant increase in the group with stress.

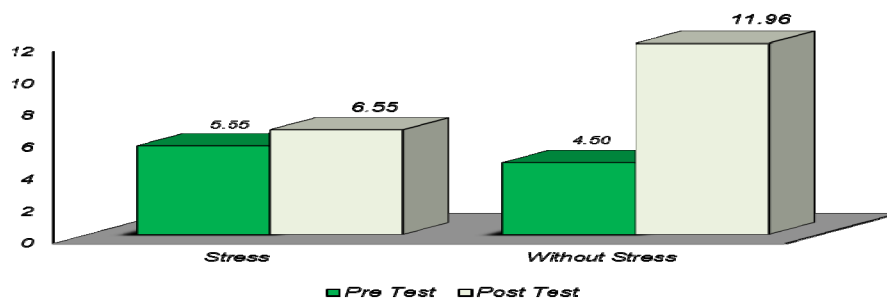


Figure 1. English achievement test average in stress and without stress groups

To test the normality of the data the one-sample Kolmogorov-Smirnov test has been used and the results have been concluded in the following table:

Table 2. Summary of one-sample Kolmogorov-Smirnov test

Variable	Group	Pre-test		Pos-test	
		K-S	Sig	K-S	Sig
Achievement	Stress	.82	.51	.73	.66
	Without Stress	.93	.36	.69	.73

As it can be seen in the above table, the significance level of variables (sig) is above 0.05 in all measurements. Therefore, it can be said that the research variables have a normal distribution.

The homogeneity of variance in two groups has been studied by Levene test and the results are concluded in following table:

Table 3. The results of Levene test to study the homogeneity of variance in the pre-test achievement

Group	N	Variances	F	Sig
Stress	22	6.6	.09	.77
Without Stress	28	7		

The significance level of the test shows that the variance of the two groups is homogenous.

Considering the nature of research variables, the hypothesis would be tested through an independent sample t-test. The two groups have been tested through independent sample t-test if they are peer groups and the results are concluded in Table 4:

Table 4. Independent sample t-test

Group	N	Mean	Std. De	df	t	Sig
Stress	22	5.55	2.6	48	1.4	.17
Without Stress	28	4.5	2.7			

According to the table above, the significance level of hypothesis test is more than 0.05 ($t=1.4$, $sig=0.17$). So, it can be concluded that the test scores from the achievement test are the same in the two groups; the students with stress and the students without stress. In other words, according to the achievement test, the two groups are peer before the intervention.

To investigate the research question “Is stress an impediment to learning English?”, we should collect the data from the pre and post-test and then compare them. The pre-test and post-test scores have been compared in two groups, using the T-dependent model:

Table 5. T-dependent model to compare the pre-test and post-test scores in two groups

Group	Pair 1, 2	Mean	Pair Diff	Std. De	df	t	Sig
Stress	Pre	5.55	-1	2.8	21	-1.7	.11
	Post	6.55					
Without Stress	Pre	4.5	-7.46	3.2	27	-12.2	.01
	post	11.96					

Table 5 indicates that the t is significant at level 0.01 only in the students without stress. In other words, there is only a significant difference between the pre-test and post-test in the group without stress. The subjects' scores have been increased significantly in the post-test while there is no such an increase in the group with stress. Therefore, the null hypothesis in the 0.01 level can be rejected and it can be said, with 99% confidence, that stress is a barrier to learn English.

Then, in order to ensure about the results, the post-test scores have been compared:

$$H_0 : \mu_2 = \mu_4$$

$$H_1 : \mu_2 \neq \mu_4$$

The homogeneity of variance has been checked which is concluded in the table below:

Table 6. The results of Levene test for studying variance equality of groups at English achievement test

Group	N	Variances	F	Sig
Stress	22	9.8	.95	.34
Without Stress	28	16.5		

According to table 6, the variance homogeneity has been confirmed in the two groups.

Table 7. Independent t-test for comparing writing skill of two groups at post-test

Group	N	Mean	Std. De	df	t	Sig
Stress	22	6.55	3.1	48	-5.2	.01
Without Stress	28	11.96	4.06			

According to the above table, achieved t is meaningful at 1% level. ($t=5.2$, $sig=0.01$). In other word, between the post-test of groups, there is meaningful difference. The comparison of the means shows that the average of the students who are without stress meaningfully is higher than the students who have stress. Then, it can be concluded, with 99 percent confidence, that stress is an impediment to learning English.

The results of the above tables can be concluded in the following linear diagram:

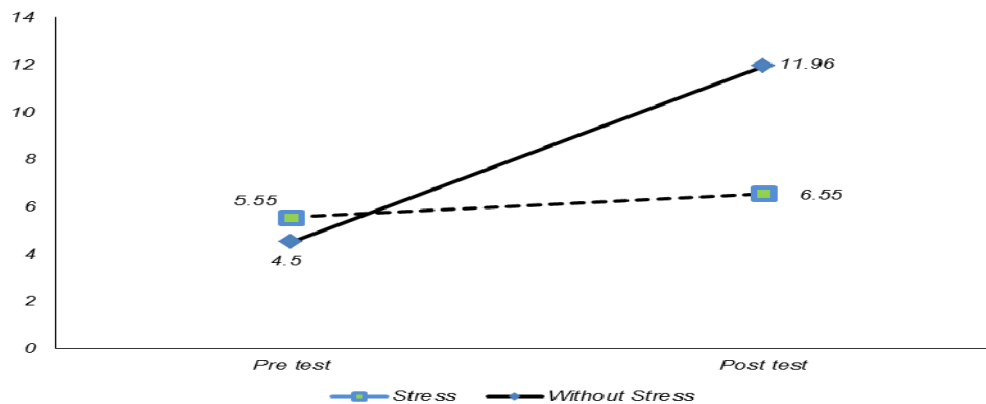


Figure 2. The linear diagram of comparing the stress effects from English achievement test

5. Discussion and Conclusion

According to the findings from the independent t which has been mentioned before, it can be said that stress is an impediment for students to learn English. However, stress does not consider as an introduction for learning motivation, the interaction theory suggests that after being in a stressful situation, the problem would be 'how to face the stressor and be compatible with it'. If the situation comes with the challenge, more individuals show efforts for learning (i.e., the students in the class to face the situation). However, students will use a large amount of energy when they experience stress with a lot of studying and difficult content, because they try to overcome a problem. If the situations work as negative conditions and obstacles to progress, facing stressful situations, the cognitive style of the one could be something like getting away from the problem, and so on. In this case, the individual would feel that the negative situation is negative and stable, and then the one would try less for learning, and stress would be an impediment to learn i.e., Students, who experience stress with some vague expectations in the learning environment, may keep their distance from the situation as they assume that their efforts to satisfy the expectations will not be successful.

According to the recent meta-analysis research the high level of stress can be defined as a determinant variable which has an inverse relationship with the study development. In general, it can be said that stress is an important factor in some social and psychological damages. In addition, students have faced the issue recently and the damages from stress cannot be reduced with stress management. A research in 2002 on some medical students in Isfahan, Iran shows that the problems and stressors in the education life of students may lead to an academic failure, even illness. So, the education managers play a main role about it. It is worth to notice that there have been several ways to reduce the negative impacts on the students' academic performance, and stress management can be one of them.

The present study investigates stress in students' education in secondary schools in Saveh. We all know that stress is effect on the mind and human health. This research is important for the students to reduce stress and compared to other studies. Accordingly, Sorenson (2007) suggested that one of the reasons students avoid participating in activities may be related to a lack of confidence. This is why it is necessary for the teacher to help learners build confidence by encouraging them to learn how to use skills in stress reduction.

We grow and develop our skills, as a results stress in our life may become greater. We don't let it that stop us. These stresses impact on individuals and have negative influences.

Students in Burden's study (2004) showed stress for them and they were worried about evaluations from others. Most importantly, it is believed that teachers regard less of teaching environment and it can affect in stress.

In the current study, there are some differences from the previous studies did with Iranian students who learn English in Iran and affect stress in education. It seems that students in the current study have more stress.

To sum up, it can be suggested that:

- Use the student-base instead of teacher-base method in classes
- Teaching method according to the group work method in a class
- Holding the stress management workshops for students

References

- Abazari et al. (2002). Study the stressor sources in the English academies in Rasht, Mashad, Zahedan and Shiraz. *The Magazine of the University of Medical Sciences and Health*, 10(3), 92-97.
- Afshari, N., Shahzar, T. B., & Hemayat Talab, R. (2014). The impacts of movement limitation stress on the learning and spatial memory and the preventing role of the physical activity on it. *Development and Motor Learning*, Fall, 327.
- Alvani, M. (1989). The mental pressures in organizations and the facing methods in academic courses. *The Public Management Journal*, (3), 45-58.
- Burden, P. (2004). The teacher as facilitator: Reducing anxiety in the EFL university classroom. *JALT Hokkaido Journal*, 8, 3-18.
- Cunningham, B. J. (1997). *The Stress Management Sourcebook*. Los Angeles: Lowell House.
- De Kloet, E. R., Joëls, M., & Holsboer, F. (2005). Stress and the brain: from adaptation to disease. *Nature Reviews Neuroscience*, 6(6), 463-475. <http://dx.doi.org/10.1038/nrn1683>
- Dimeo, F., Bauer, M., Varahram, I., Proest, G., & Halter, U. (2001). Benefits from aerobic exercise in patients with major depression: a pilot study. *British Journal of Sports Medicine*, 35(2), 114-121. <http://dx.doi.org/10.1136/bjism.35.2.114>
- Farshi, T. (2005). Studying the stress in the employee of Tabriz Oil Company and its relationship with learning according to individual fitting model.
- Ice, G. H., & James, G. D. (2007). *Measuring stress in humans*. Cambridge: Cambridge University Press.
- Looker, T., & Gregson, O. (2003). *Managing stress*. Hoddes Plc, UK.
- Mac Samter, G., & Gilliam, F. (2005). Stress in the Lives of College Women: Lots to Do and Not Much Time. *Journal of Adolescent Research*, 21, 579-606.
- Nahid, D. N., & Mohsen, A. H. (2006). The effects of relaxation on stress and the life quality of students in university dorms. *Scientific Journal Faze*, 10(2), 50-58.
- Rahmani, A., Sheikh, M., Hemayat Talab, R., & Naqdi, N. (2012). The impacts of sport on the learning changes by stress. *The Scientific Journal of Arak Medical University*, 16(1), 52-64.
- Sorenson, R. D. (2007). Stress management in education: warning signs and coping mechanisms. *Management in Education*, 21(3), 10-13. <http://dx.doi.org/10.1177/0892020607079985>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).