

Generalized Anxiety Disorder and Reading Comprehension Performance: An Iranian Experience

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Abstract: This paper attempted to uncover the relationship between Generalized Anxiety Disorder (GAD) and reading comprehension performance in English as a foreign language. GAD as a psychiatric disorder affects the students' performance in language learning in general and in reading comprehension in particular. Participants of the study who were 141 male and female high school students in Zanjan were asked to respond GAD-7 self-report scale and a reading comprehension test. The results of the statistical analyses of data indicated that there is a significant negative relationship between GAD and reading comprehension performance. Between GAD and gender no relation or difference was found, though. GAD in males correlated negatively, but insignificantly and in females significantly and negatively with their performance in reading comprehension. The results also showed that GAD can influence the students' performance in reading comprehension. Moreover, the subjects were divided into four groups in terms of anxiety and their performances compared with reading comprehension and a significant difference was observed among the means. Nevertheless, no groups were found to be statistically different from the rest. Accordingly, it was concluded that cognitive and medical therapies can be applied to students with GAD, but first various sources of anxiety in language classes should be identified and minimized.

Key words: Reading comprehension, Generalized Anxiety Disorder, Performance, Gender

Introduction

Second language acquisition is influenced by affective factors, not the least of which is the construct of anxiety. Anxiety refers to an emotional state of tension, apprehension, concern and nervousness mediated by the arousal of the automatic nervous system (Kumaravadivelu, 2006). Horwitz et al. (1986) asserted that foreign language anxiety is “a distinct complex of self-perception, beliefs, feelings, and behaviors related to classroom language learning arising from

the uniqueness of the language learning process” (p.128). With second/foreign language learning contexts, the term language anxiety is a more relevant term (Horwitz, 2001).

Generalized Anxiety Disorder (GAD) is one of the most prevalent anxiety disorders observed in the general population and medical practice (Spitzer et al., 2006). GAD is a state where one has surplus anxiety (worried, feeling fearful and tense) on most days. The condition persists long-term. The symptoms of GAD makes one feel anxious and influence the daily activities. Moreover, people will usually suffer from one of the following symptoms:

Restlessness, on edge, irritable, muscle tension, and listlessness.

Problem in drawing attention and mind often goes blank.

Insomnia (poor sleep). Difficulty in getting off to sleep.

GAD as one of the most common psychiatric disorders (Wells and Carter, 2006) like any other anxiety disorders can impede and consume attention and cognitive processes that could be otherwise allocated to developing foreign language learning.

Some conditions of foreign language learning that provoke anxiety in learners like confusion and embarrassment may result from the inability of the learners to comprehend or articulate spoken and written input. Horwitz (2001) and Young (1999) believe these conditions make formal foreign language learning a particularly unpleasant experience for many learners.

The issue of anxiety in second or foreign language learning has been the concern of language educators and researchers for many years. Compared to listening, speaking, and writing skills, few studies have addressed the issue of anxiety and foreign language reading skill (Brantmeier, 2005; Sellers, 2000).

Reading in a foreign language ends in anxiety and finally poor language achievement "in conjunction of students' levels of reading anxiety and general foreign language anxiety" (Saito, Thomas, & Horwitz, 1998, p. 202).

According to Alderson and Urquhart (1984), various variables like emotion, attention, reader's memory, feelings, and anxiety are involved in reading comprehension and all of which are paramount in comprehending the text.

As it is evident from some studies, anxiety can impede reading comprehension by interfering with the readers' cognitive systems which are involved in processing the information in the reading extracts. It seems that fretful readers experience more interference with their cognitive ability resulting in defects in their comprehension performance. Thus, anxiety comes to play a part in affecting comprehension performance among the EFL learners (Mohd.Zin & Rafik-Galea, 2010).

A plethora of studies, to date, concerning the impact of anxiety on different aspects of language has been carried out. In most these studies, the anxiety index has been estimated by a questionnaire, particularly the one which was developed by Horwitz (1983 &1986), Foreign Language Classroom Anxiety Scale (FLCAS).

The present study was an attempt to investigate the relationship between Generalized Anxiety Disorder (GAD) and the students' performance in reading comprehension in English as a foreign language. Spitzer et al. (2006) stated that compared with the numerous measures for depression;

there have been fewer studies of anxiety, partly, due to the paucity of brief validated measures. The present study tried to utilize GAD-7 scale to evaluate students' anxiety.

This study specifically addressed the following research questions:

1. Is there any significant relationship between reading comprehension performance and GAD?
2. Is there any significant relationship between gender and GAD?
3. Is there any significant relationship between performance in reading comprehension and GAD in males?
4. Is there any significant relationship between performance in reading comprehension and GAD in females?
5. Is there any significant difference between males and females in terms of GAD?
6. To what extent does GAD influence students' performance on reading comprehension?
7. Is there any significant difference between reading comprehension performance and the severity levels of GAD?

Review of the related literature

Gardner and his colleagues (Gardner, 1985; Gardner, Day, & MacIntyre, 1992; MacIntyre & Gardner, 1994) hypothesized that anxiety has a significant detrimental impact on L2 development. Kuumaravadivelu (2006) asserts that several individual factors like age, anxiety, empathy, extroversion, introversion, and risk taking have been studied in order to evaluate their role in L2 development. Of these variables, anxiety and age seem to play a relatively greater role than the others (p. 32).

In language learning, anxiety can be either facilitating; in a sense that it influences learning and performance positively or debilitating which impedes learning and performance (Alpert & Haber, 1960). Scovel (1991) asserted that facilitative anxiety stimulates the student to 'fight' the new learning task while debilitating anxiety motivates the student to adopt avoidance behavior.

Trait, state and situation are different types of anxiety. According to Horwitz (2001) trait anxiety is a "relatively stable personality characteristic" whereas "state anxiety is viewed as a response to a specific anxiety-provoking stimulus such as an important test. Situation-specific anxiety is similar to trait anxiety, but it is experienced in a single context or situation (MacIntyre, 1999). According to Brown (2000), the situational nature of state anxiety is what research on language anxiety focuses (p. 151). Vasa and Pine (2004) classify anxiety into three aspects of physiological, behavioral, and cognitive, and believe that it is the cognitive aspect which has received the most attention in recent studies.

Researchers have investigated the effect and relationship between anxiety and language skills in general and reading skill in particular, even though it is still open to more investigation and analysis. Namrata (1992) and Trivdei (1995) found that academic achievement and performance was negatively and significantly related to anxiety. Saito et al. (1999) believed that

although reading anxiety is related to language anxiety but it is different. They also found that Japanese learners suffer from more anxiety in reading than French and Russian learners.

The relationship of language anxiety to reading comprehension among Spanish students was investigated by Sellers (2000). The findings showed that the students with high reading and language anxiety could remember less content of the text.

Matsuda and Gobel (2004) found no significant impact of gender on anxiety among the university students. Elkhafaifi (2005) and Liu (2006) investigated students at different levels of proficiency and observed that high proficiency students in language tended to be less anxious.

According to Williams and Andrade (2008), anxiety was most often related to the processing and output stages of the learning process and ability level and gender are determining factors in influencing anxiety. They also observed that the students ascribe the cause of anxiety to the teacher or other people.

Wu (2011) pointed out that reading anxiety (RA) was related to language anxiety (LA), but they were two different phenomena in foreign language learning. Although reading comprehension performance did not differ significantly with the students in different levels of LA and RA, a general trend of lower LA and RA going with higher performance was identified.

Mohd.Zin and Rafik-Galea (2010) surveyed anxiety and academic reading performance among Malay ESL learners and concluded that anxiety can hinder comprehension by interfering with the readers' cognitive systems which are responsible for processing the information in the reading texts.

Vazalwar (2011) found that anxiety and reading comprehension in English are correlated negatively, but insignificantly in boys and girls separately and boys and girls both. The normal level of anxiety gives a positive effect in reading comprehension.

According to Jafarigohar and Behrooznia (2012), there was a significant negative relationship between foreign language reading anxiety and reading comprehension; however, they did not find any relation between age and foreign language reading anxiety. They also found that females suffered more from anxiety than males. Tsai (2013) observed a negative correlation between reading strategy use and reading anxiety level. In other words, when students' reading anxiety level increased, their use of reading strategy uses decreased. It was propounded that after receiving the reading comprehension strategy instruction the students' degree of reading anxiety had been reduced and their reading strategy degree increased.

Methodology

Participants

The subjects of this study were taken from three different high schools in Zanjan. Zanjan is the capital of Zanjan Province in northwestern of Iran. The selection procedures yielded a sample of 141 third -grade students out of 160 senior participants. They were both male (55.3%) and female (44.7%), with the age range of 17 to 18, studying math as their field of study. All the participants have had six years of formal English schooling. Therefore, they had roughly similar

types of exposure to English. The participants' GPA in non English subjects ranged from 15 to 18 though.

Instruments

This study employed two kinds of instruments: GAD-7 self report scale and a reading comprehension test. GAD-7 questionnaire was developed by Spitzer et al, (2006) to screen for generalized anxiety disorder and assess its severity in clinical practice and research (See Appendix). It is a 7-item scale and the students rate their responses on a 4-point Likert scale. The GAD-7 score is calculated by assigning scores of 0, 1, 2, and 3 to the response categories of "not at all," "several days," "more than half the days," and "nearly every day," respectively, and adding together the scores for the seven questions. GAD-7 total score for the seven items ranges from 0 to 21. Scores of 5, 10, and 15 are taken as the cut off points for mild, moderate, and severe anxiety, respectively. Using the threshold score of 10, the GAD-7 has a sensitivity of 89% and a specificity of 82% for generalized anxiety disorder. It is moderately good at screening three other common anxiety disorders – panic disorder, social anxiety disorder, and post-traumatic stress disorder. According to Spitzer et al. (2006), the GAD-7 is a valid and efficient tool for screening for GAD. The estimated internal consistency of the GAD-7 was excellent (Cronbach =.92). Test-retest reliability was favorable (intraclass correlation=0.83). Convergent validity of the GAD-7 was also good, as demonstrated by its correlations with 2 anxiety scales: the Beck Anxiety Inventory ($r=0.72$) and the anxiety subscale of the Symptom Checklist-90 ($r=0.74$). Nainian et al. (2011) estimated the reliability and validity of GAD-7 for Iranian context. The estimated internal consistency (Cronbach =.85) and test –retest reliability ($r = .48$) were also satisfactory in this context. Convergent validity of the GAD-7 demonstrated by its correlations with 3 anxiety scales: Spielberg State-Trait anxiety inventory ($r =.71$) and SCL- 90-R ($r=.63$) which were consistent with previous studies.

Reading comprehension test consisted of six short passages. It contained 30 multiple-choice questions. These passages were drawn from "English Tests for Third Grade High School Students" (Anani and Nikoupour, 2010). The difficulty level of these texts was close to that of the textbook passages. The comprehension check questions were retested for item facility, choice distribution and validation purposes. The test was piloted with 20 high school students in the third grade who were similar to the target group. The reliability of the questionnaire was estimated using Cronbach Alpha, which was calculated to be .67, confirming the reliability of the reading comprehension test. To obtain content validity, the passages were perused by two ELT university instructors and they confirmed both the content and the difficulty level of the passages for the intended population.

Procedure

The GAD-7 questionnaire along with reading comprehension test was administrated simultaneously among the students during their English class time. They were allotted 45 minutes to mark the responses on a separate answer sheet. Out of 160 distributed questionnaires and reading comprehension tests, 141 valid samples were extracted. The obtained data were fed into a computer and analyzed both descriptively and inferentially, using SPSS version 20. The statistical procedures of Pearson product moment Correlation, T-test, one-way ANOVA and linear regression were also utilized.

Results

Of 141 students who took part in the study, 78 were male and 63 were female. Table 1 shows the descriptive analysis of data in which the statistic mean and standard deviation for both variables have been represented.

Table: 1
Descriptive Statistics

Variable	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
GAD	141	0	21	8.06	.402	4.772
Reading	141	2.75	18.75	12.5816	.30845	3.66261

As it was mentioned before, generalized anxiety disorder is ranged from zero to 21. It is also divided into four levels in terms of severity. As it is evident from Table 2, 39.7% of the students are in the mild level whereas only 12.1% fall into severe level. Therefore, the majority of participants (60%) experience mild and moderate level of anxiety. In contrast, 27% of the subjects are in the minimal or near normal anxiety level.

Table: 2
Severity of Anxiety

Levels of GAD	Range	Frequency	Percent	Valid Percent	Cumulative Percent
Minimal	0-4	38	27.0	27.0	27.0
Mild	5-9	56	39.7	39.7	66.7
Moderate	10-14	30	21.3	21.3	87.9
Severe	15-21	17	12.1	12.1	100.0
Total		141	100.0	100.0	

The Pearson product moment correlation was run to test whether there is a significant relationship between GAD and reading comprehension performance. As shown in Table 3, the correlation coefficient between the two variables is $r = -.204$ at .05 level of significance. This coefficient indicates that there is a significant negative relationship between GAD and students'

reading comprehension performance. In other words, as students' anxiety enhances, their performance on reading comprehension decreases.

Table: 3
Correlation Between GAD and Reading

		Anxiety	Reading
GAD	Pearson Correlation	1	-.204 [*]
	Sig. (2-tailed)		.015
	N	141	141
Reading	Pearson Correlation	-.204 [*]	1
	Sig. (2-tailed)	.015	
	N	141	141

Concerning the relationship between GAD and gender, no significant relationship between two variables was found. The correlation coefficient was calculated to be .079 (See Table 4). It seems that GAD is prevalent among both males and females. Both genders experience some kind of anxiety.

Table: 4
Correlation Between GAD and Gender

		DAD	Gender
GAD	Pearson Correlation	1	.079
	Sig. (2-tailed)		.350
	N	141	141
Gender	Pearson Correlation	.079	1
	Sig. (2-tailed)	.350	
	N	141	141

Tables 5 and 6 clearly illustrate the results of correlation between GAD and reading comprehension performance in males and females separately. The results indicate that there is a negative, but insignificant relationship between GAD in males and their performance in reading comprehension. The estimated correlation coefficient ($r = -.074$) indicates that the males' performance in reading may be due to the factors other than anxiety. On the other hand, the correlation coefficient between GAD in females and reading comprehension is estimated to be $r = -.367$ at the .01 level of significance ($p = .003$), which reveals an inverse significant relationship between two variables ($p < .01$). In other words, there is a 99 % confidence that the observed correlation is due to other than chance factors. When GAD in females increases, we should observe lower performance in their reading comprehension.

Table: 5

5, Issue:2, April 2016

Correlation Between GAD in Males and Reading

		GAD	Reading
GAD	Pearson Correlation	1	-.074
	Sig. (2-tailed)		.521
	N	78	78
Reading	Pearson Correlation	-.074	1
	Sig. (2-tailed)	.521	
	N	78	78

Table: 6

Correlation Between GAD in Females and Reading

		GAD	Reading
GAD	Pearson Correlation	1	-.367**
	Sig. (2-tailed)		.003
	N	63	63
Reading	Pearson Correlation	-.367**	1
	Sig. (2-tailed)	.003	
	N	63	63

By computing t-test for both male and female groups, we found that there is no statistically significant difference between the two groups in terms of GAD. No significant difference was found between the mean of males (M=7.72) and females (M=8.48). Furthermore, the observed t Value (.938) does not exceed the critical t value (1.98) at the .05 level of significance. As a result, no groups (males or females) were significantly more anxious regarding reading

Table: 7

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Anxiety	Equal variances assumed	.008	.930	-.938	139	.350	-.758	.809	-2.357	.841
	Equal variances not assumed			-.935	131.572	.351	-.758	.811	-2.362	.845

comprehension than the other one (See Table 7).

In order to investigate whether GAD has any impact on the students' performance in reading comprehension, the linear regression was run and the results were tabulated. The correlation coefficient between the dependent variable (reading comprehension) and independent variable

(anxiety) was calculated to be $R=.204$, which reveals a very low correlation between the two variables. As it is obvious from Table 8, the adjusted R square indicates that the independent anxiety variable accounts for only .35% of variations in dependent reading variable.

Table: 8
Regression -Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.204 ^a	.041	.035	3.59869

a. Predictors: (Constant), Anxiety

ANOVA table reports a significant F statistic, indicating that using the model is better than guessing the mean. Table 9 shows that the F ratio is larger than 1 ($F=6.017$) and the level of significance is smaller than .05. Therefore, we can assume that there is a meaningful difference between the two variables and such a difference is not due to chance or sampling error. As a result, the independent anxiety variable can account for some variations in dependent reading comprehension variable.

Table: 9
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.930	1	77.930	6.017	.015 ^b
	Residual	1800.132	139	12.951		
	Total	1878.062	140			

a. Dependent Variable: Reading b. Predictors: (Constant), Anxiety

Similarly, the obtained results indicate that the independent anxiety variable has a meaningful impact on the dependent reading variable with a 95% of confidence interval ($p<.05$). The coefficient of the standardized regression (BETA) is estimated to be -.204. In other words, when one standard deviation increases in the anxiety variable, we will witness .204 standard deviation decrease in reading comprehension variable.

Table: 10
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficient	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.841	.596		23.212	.000
	Anxiety	-.156	.064	-.204	-2.453	.015

a. Dependent Variable: Reading

Finally, to determine whether the means of four levels of anxiety severely are statistically different, one way ANOVA was run. Table 11 shows the results of one way ANOVA.

Table :11
One-way ANOVA

Reading					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	103.325	3	34.442	2.659	.05
Within Groups	1774.737	137	12.954		
Total	1878.062	140			

The significant value, as it is shown in Table 11, is .05, which is equal to .05. That is why we can conclude that there is a statistically significant difference between the means of four groups. Put differently, the differences between the means are not likely due to chance.

The above significant value tells us that there is a significant difference between the means, but it does not state which means are different. To be sure of precisely where the differences occur, we need to do a post hoc comparison of the means.

Table :12
Multiple Comparisons- Scheffe Test

Dependent Variable: Reading

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.46664	.75646	.944	-2.6078	1.6746
	3	1.23158	.87904	.582	-1.2566	3.7198
	4	1.85217	1.05020	.378	-1.1205	4.8248
2	1	.46664	.75646	.944	-1.6746	2.6078
	3	1.69821	.81433	.231	-.6068	4.0032
	4	2.31880	.99667	.149	-.5023	5.1399
3	1	-1.23158	.87904	.582	-3.7198	1.2566
	2	-1.69821	.81433	.231	-4.0032	.6068
	4	.62059	1.09262	.956	-2.4721	3.7133
4	1	-1.85217	1.05020	.378	-4.8248	1.1205
	2	-2.31880	.99667	.149	-5.1399	.5023
	3	-.62059	1.09262	.956	-3.7133	2.4721

Table 12 illustrates that all of the values are greater than .05. As a result, the comparisons are not significantly different from one another. In other words, the comparisons of means do not reveal statistically significant differences among the groups in terms of their reading comprehension performance. The observed differences between the means can be attributed to the chance or sampling error.

Discussion

This study shed light on the relationship between the generalized anxiety disorder and the students' reading comprehension performance. The first question sought to uncover the relationship between GAD and reading comprehension performance in English. In the light of the results, a significant negative correlation was found between the two variables. In other words, the students' increased GAD lower their optimal performance in reading comprehension. Regarding the impact of GAD on the students' performance in reading comprehension, the results of linear regression indicated that GAD influences reading comprehension performance to a small degree. This accounts for only .35% of the variance. Even though this amount is negligible, it can hinder the optimal performance of both underachievers and overachievers. This finding is consistent with some previous studies (Oh, 1990; Saito et al., 1999; Sellers, 2000; Mohd.Zin & Rafic-Galea, 2010; Keshavarz, 2011; Vazalwar, 2011; Jafarigohar & Behrooznia, 2012; Tsai & Li, 2012). Similarly, Sellers (2000) found that participants with high levels of anxiety recalled significantly less content on a foreign language reading comprehension than participants experiencing lower levels of anxiety. Thus, many studies have identified the negative effect of anxiety on learning tasks, especially reading comprehension. This study provides additional evidence to corroborate the existence of anxiety among the foreign language learners. Evidently, it shows that it influences reading comprehension performance negatively.

The four research questions surveyed the issue of gender and GAD. The results revealed no significant correlation between GAD and gender. The obtained results of t- test also displayed no statistically significant difference between the two groups of males and females in terms of GAD. Generalized anxiety disorder seems to be prevalent more or less in both groups. However, the further analyses demonstrated that GAD in females has a significant negative relationship with the students' performance in reading comprehension. Females tend to be more anxious than male participants, especially in evaluative settings. This finding accords that of Elkhafaifi (2005) and Abu-Rabia (2004), whose studies showed significant differences in language anxiety based on gender with females being more anxious than males. Nevertheless, this finding runs counter to Matsuda and Gobel (2004) and Wu (2011) who found no significant difference in language anxiety between male and female students. In contrast to females, GAD in males was negatively, but insignificantly correlated with reading comprehension performance in this study. Consequently, females' performance in reading comprehension seems to be more influenced by GAD than the male participants. The obtained findings corroborate the theory of the language anxiety research, propounded by Eysenck and Calvo (1992), which hypothesizes that anxiety has the ability to influence the performance of anxious individuals particularly in evaluative contexts. According to MacIntyre and Gardner (1994) anxious students have a small base of second language knowledge and have more difficulty demonstrating the knowledge that they do possess (p, 301).

As it was mentioned before, GAD can be divided into four levels in terms of severity, namely; minimal, mild, moderate and severe. The majority of the subjects (60%) fell into mild

and moderate levels of GAD, and only a small number (12.1%) were in severe level. Likewise, the range of anxiety level experienced by the subjects was from minimal to severe. The findings of this study seem to coincide with what Sellers (2000) and Mohd. Zin & Rafik-Galea (2010) reported that 65% and 74% of the subjects, respectively were in the moderate anxiety level and only 18% and 26% respectively fell into high levels of anxiety.

To pinpoint whether the four groups of anxiety severity are statistically different, one-way ANOVA was run and the results highlighted the significant difference among the means of four groups. To know which mean(s) is different from the rest, or which group(s) outperforms the other groups, the post hoc comparison was utilized. However, no significant differences were found among the means of the groups being compared. The results of the Scheffe test demonstrated that the groups do not statistically differ in reading comprehension performance. Nonetheless, the mean difference between groups two and four is calculated to be $M = 2.31$ which is larger than any other mean difference between the groups. Therefore, we can conclude that groups two and four are to some extent (but not significantly) different in terms of reading comprehension performance. Put differently, group two (mild anxiety group) has performed better than three other groups in reading comprehension. On the other hand, group four (severe anxiety group) has performed lower than other groups. Accordingly, GAD can be considered facilitative and debilitating for the groups two and four respectively in terms of their performance in reading comprehension. In other words, some apprehension on the task to be done is effective.

Conclusion

It is believed that nearly all students experience a range of anxiety in different stressful contexts especially in classroom settings. Identifying the potential sources of anxiety should be the primary concern of language teachers. Some language researchers believe that for some learners, the language classroom is an anxiety-provoking situation. The language learners, teachers and testing methods of the language classroom are the potential sources of language anxiety (Young, 1991). Horwitz et al. (1986) identified three components of foreign language anxiety: communication apprehension, test anxiety and fear of negative social evaluation. In Williams and Andrade's (2008) survey, students attributed anxiety to the teacher and other people. GAD often develops for no apparent reason. Various factors like genetic 'make up', childhood trauma and a major stress in life may trigger the condition. Some people have a tendency to have an anxious personality, which can run in families.

Second, language teachers should do their own best in order to control, minimize or even eliminate anxiety provoking situations. Clinicians and psychiatrists put forward some ways in order to alleviate the symptoms of GAD. Cognitive behavioral therapy (CBT) is probably the most effective treatment (Borkovec et al., 2004). Cognitive therapy is based on the idea that certain ways of thinking can trigger or fuel certain mental health problems such as anxiety. The aim is then to change the ways of thinking to avoid any harmful, unhelpful and false ideas or thoughts that make a person anxious. Behavioral therapy aims to change any behaviors which are harmful or not helpful. CBT is a mixture of both cognitive and behavioral therapy where one

may benefit from changing both thoughts and behaviors. Counseling is another remedy that focuses on problem-solving skills. Sometimes medications like antidepressant medicines and tranquilizers can be used as a last resort in combination with CBT.

Third, in classroom contexts, teachers should accept the responsibility of creating stress and anxiety free situations in which students feel secure and relaxed and involve themselves in classroom activities. Brown (2000) points out that anxiety has an optimal point along its continuum: both too much and too little anxiety may hinder the process of successful second language learning. Consequently, a positive, facilitative anxiety is encouraged that can pave the way in the long run for the maximum performance of the students in foreign language classes.

Finally, it is worth noting that GAD-7 self report scale which was utilized by researchers in this study yielded roughly the same results analogous to previously conducted studies using the specific foreign language anxiety questionnaires. Accordingly, GAD-7 has the same screening power as the most commonly used anxiety scales. It can be used not only in clinical contexts, but also in educational and research settings.

Limitations

This study is restricted in two aspects, at least. First, the sample of the population included only the small number of participants, so the results can hardly be generalized to all high school students in Iran. Second, the number of reading passages (6 passages) administered to the students in a limited allotted time made some of them frustrated, exhausted and embarrassed. This hampered their optimal performance and contributed to the additional source of anxiety and strain as well.

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Appendix

GAD-7 Anxiety

Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to sleep or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid, as if something awful might happen	0	1	2	3

Column totals + + + =

Total score:.....

Source: Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (PRIME-MD-PHQ). The PHQ was developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues.