THE RELATIONSHIP BETWEEN FOREIGN LANGUAGE ANXIETY AND CRITICAL THINKING TENDENCY: A PATH ANALYSIS

Ayhan İNCİRCİ
English teacher, Ministry of National Education, ayhanincirci@gmail.com
ORCID: 0000-0001-8566-6079

Selçuk TURAN
English teacher, Ministry of National Education, selcukturan25@gmail.com
ORCID: 0000-0003-2234-6494

Esra ÖZTÜRK
English teacher, Ministry of National Education, ozturk06es@gmail.com
ORCID: 0000-0001-7096-8218

ABSTRACT

The success of foreign language teaching depends on a number of variables including motivation, teaching methods and techniques, background knowledge etc. One of these variables is foreign language anxiety on which numerous studies have been conducted. These studies generally focus on the reasons of anxiety, how to eliminate them, the correlation between achievement and anxiety, etc. However, there is a scarcity of research about the relationship between anxiety and critical thinking tendency. This study aims to fill in this gap by determining what kind of a relationship (positive or negative) there is between these two concepts. The study has been conducted in Turkey with 136 high school students. Critical Thinking Tendency Scale (Semerci,2015) and Foreign Language Anxiety Scale (Aydın, Harputlu, Güzel & Genç, 2016) have been used as data collection tools. Data have been analyzed through path analysis and the findings show that there is a positive correlation between critical thinking tendency and foreign language anxiety. It is expected that foreign language teachers consider this finding when designing the classroom activities. Depending on the results of current study, it can be said that low level of FLA is essential in the foreign language classrooms. FLA is not the only variable effecting the foreign language learning environment, so it can be suggested to conduct new research on the effects of other variables along with FLA on foreign language learning environments.

Keywords: Critical thinking tendency, foreign language anxiety, path analysis.

INTRODUCTION

Learning a foreign language has been a requirement in today's world. It is a necessity both for employment and for being a competent communicator. Therefore, researchers focus on identifying the obstacles in language learning and finding out the ways to overcome them. Foreign language anxiety (FLA), being one of these obstacles, has been the focus of many studies both in the national and international context. Some of these studies concentrate on detecting the relationship between FLA and the level of achievement (Trylong, 1987; Proulx, 1991; Phillips, 1992; Aida, 1994; Ganschow, Sparks, Anderson, Javorsky, Skinner & Patton, 1994; Gülsün, 1997; Kunt, 1997; Saito, Horwitz & Garza, 1999; Sparks, Ganschow & Javorsky, 2000; Horwitz, 2001; von Wörde, 2003; Chan & Wu, 2004; Hao, Liu & Hao, 2004; Batumlu & Erden, 2006; Kılıç, 2007; Awan, Azher, Nadeem, Naz, 2010; Köroğlu, 2010; Wang, 2011; Demirdaş, 2012; Demirdaş & Bozdoğan, 2013).

On the other hand, a noticeable number of research has been conducted with the aim of identifying the factors that cause anxiety in learners (Rajanthran, Prakash and Husin, 2013; Zhang and Zhong, 2012; Price, 1991). However, there is a gap in literature which indicates that the number of studies that aim to find out the relationship between critical thinking and FLA is not sufficient. Therefore, this study takes its source from the necessity of filling this gap and aims to find out if there is a correlation between FLA and critical thinking tendency.

A comprehensive literature review on critical thinking and foreign language anxiety is followed by the details about the process, scope and findings of the study. Depending on Krashen's (1987) well known hypothesis "when learners enter a learning context with a low level of anxiety, they are much more likely to become successful language acquirers than those who do not" (Lin, Chao & Huang, 2015), the hypothesis of this study is specified as "There is a negative relationship between critical thinking skills and foreign language anxiety". The study has been designed to test this hypothesis. Information about critical thinking, FLA and sources of FLA are presented below.

What Is Critical Thinking?

The literature about the definition of critical thinking is rich. "Critical thinking is a whole of analyzing facts, generating and organizing ideas, and defending opinions, making comparisons, drawing inferences, evaluating arguments and solving problems" (Chance, 1986). On the other hand, Halpern (1999) states that it is a form of thinking which a combination of skill and strategy. According to Glaser (1941), critical thinking has three fundamentals:

> "The first one is an attitude of being disposed to consider the problems and subjects that comes within the range of one's experiences in a thoughtful way. The second one is the knowledge of the methods of logical inquiry and reasoning. The third and the last one is some skills in applying those methods."

When it comes to Paul and Elder (2008), they identify critical thinking in the mean of one's self-guided and disciplined thinking, attempting to purpose at the highest level of capacity in an equitable manner. Ennis (1985)

defines critical thinking from the aspect of thought which is a reflective thinking focusing on making conclusion on the way of belief (to believe or not). Even though the definitions show variety, all of them focus on making judgments and reasoning.

The era in which we live requires people to be effective thinkers and decision makers. When compared to the past, today it is more frequent for people to be confronted with situations that urge them to make a decision and take action accordingly. Hence, people have to make sound judgements taking the possible drawbacks into consideration.

Foreign Language Anxiety

FLA is the feeling of tension and suspicion particularly engaged in second language frameworks, consisting of a productive skill (speaking), a receptive skill (listening), and learning itself (MacIntyre and Gardner, 1994). Horwitz (2001) asserts that among all second language learners almost one out of three have some level of FLA. Similarly, in numerous studies carried out from 2000 to 2013 in Turkey (Dalkılıç, 2001; Sertçetin, 2006; Aydın, 2008; Balemir, 2009; Sağlamel, 2009; Aydemir, 2011; Burgucu, 2011; Er, 2011; Ergün, 2011; Karabey, 2011; Aksoy, 2012; Demirdaş, 2012; Karaca, 2012; Öztürk, 2012;Demirdaş & Bozdoğan, 2013), it was identified that students learn in a meaningful level of anxiety in learning a new language. For that reason, FLA has always been a topic of interest and research (Ellis, 2008; Wang, 2014), especially research in the 1980s showed progress in the studies on foreign language learning anxiety (Wang, 2014). For instance, Krashen (1982) highlighted the significance of understanding anxiety being one of the learner's affective filters; FLA may conflict with learning or acquiring a target language. Since then the researchers have focused on detecting whether there exists a meaningful link between achievement and the anxiety level. In fact, such variables as gender, age, economic status and time spent abroad etc. have also been the source of interest. As reported in national and international research studies "there occurs a negative relationship between FLA and achievement in foreign language" is a widely accepted fact (Trylong, 1987; Proulx, 1991; Phillips, 1992; Aida, 1994; Ganschow et. al, 1994; Kunt, 1997; Gülsün, 1997; Saito et. al, 1999; Sparks et. al, 2000; Horwitz, 2001; Batumlu, 2006; Kılıç, 2007; Köroğlu, 2010; Gülözer, 2010; Awan et. al, 2010; Wang, 2011; Demirdaş, 2012; Demirdaş & Bozdoğan, 2013). Therefore, researchers have concentrated on detecting the origins of FLA with the aim of finding the ways to overcome it.

Sources of Foreign Language Anxiety

Since anxiety is a feeling which depends on many factors and occasions, different studies suggest different causes. For example, some studies show that FLA may occur when students are under the explosion of some negative involvements in a foreign language learning environment (MacIntyre and Gardner, 1991; Sparks, Ganschow & Javorsky, 2000; Chen and Chang, 2004; Sparks and Ganschow, 2007; Saadi, 2009; Horwitz et al., 2010; Hewitt & Stephenson, 2012) According to this finding, the previous experiences of a learner play a prominent role in anxiety.

After a more comprehensive study, reasons for FLA can be categorized depending on different contexts as skill-specific, classroom-related, learner-induced and some society-imposed. The fundamental root of anxiety emerges from "learners' unrealistic or erroneous beliefs about language learning" (Zhang and Zhong, 2012). Some students consider learning a foreign language is as easy as acquiring the mother tongue while others think that they do not have the ability to learn a new language. All these misconceptions would lead to anxiety in learners.

Another factor that would lead anxiety in learners is about the language standards that the learners have. Since second language learners are exposed to the target language from native speakers via some recordings or/and native instructors (Kitano, 2001), they set their standards as high as the level of native speakers. When they fail to achieve the high standards, they feel anxious (Levine, 2003).

"Classroom-related anxiety is related to instructors, peers and classroom practices" (Levine, 2003). Sometimes instructors have the misconception that they would never let learners make mistake, which results in correcting the learners after every single mistake that they make. Therefore, feeling discouraged, learners prefer not to attend to the classroom activities. Furthermore, the peer assessment or judgment is also a considerable source of anxiety (Javid, 2014). It can also be deduced from the literature of educational sciences that any kind of violence in the school environment may have a negative impact on foreign language learning along with the learning of other fields (Ayral, Özdemir, Demirhan, 2014). Therefore, an encouraging and relaxing classroom atmosphere is critical to decrease the level of anxiety.

Classroom activities are also a source of anxiety. While some students report that they worry about making mistakes in pronunciation in front of their peers (Price, 1991), others refrain from making oral presentations (Koch and Terrell, 1991). Many factors such as the nature and the difficulty level of the task contribute to the level of anxiety.

METHOD

The aim of the study is to determine the relationship between critical thinking tendency and foreign language anxiety. The study adopted a quantitative research framework. 136 students who study at a high school in Zonguldak, Turkey participated to the study. Data have been collected through Foreign Language Anxiety Scale (Aydın, Harputlu, Güzel & Genç, 2016) and Critical Thinking Tendency Scale (Semerci, 2015). Path analysis has been used to examine the relationship between students' foreign language anxiety and critical thinking tendency. The method of "path analysis or path coefficients was developed by Sewall Wright (1921, 1934, 1954, 1960 a, b) in a series of general essays as an aid to the quantitative development of genetics" (Land, 1969). Later on, it has become popular. "Path analysis is an extension of multiple regressions which goes beyond regression in that it allows for the analysis of more complicated models" (Streiner, 2005). It is useful in making explicit the rationale of conventional regression calculation (Duncan, 1966).

FINDINGS

CTTS Confirmatory Factor Analysis Result

Confirmatory Factor Analysis (CFA) on the CTTS was performed by using collected data. When the values obtained from the analysis are examined, it is seen that the ratio of the chi-square value to the degree of freedom is below 2. Another value of the compliance index remains below.08. When all these values are evaluated together, it can be said that the research data confirms the one dimensional existence. The findings are shown in Figure I.
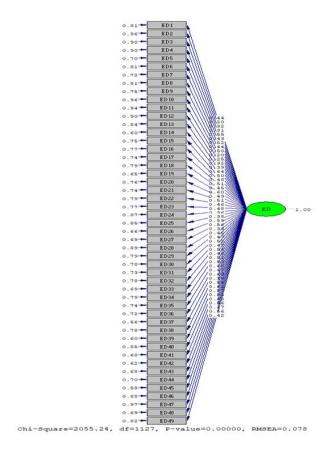

Figure I. CTTS Confirmatory Factor Analysis Result

FLAS Confirmatory Factor Analysis Result

Confirmatory Factor Analysis (CFA) was performed on the FLAS scale by using the collected data. When the values obtained from the analysis are examined, it is seen that the ratio of the chi-square value to the degree of freedom is below 3. Another value of the compliance index remains below .05. When all these values are evaluated together, it can be said that FLA exists as one dimensional. The findings are shown in Figure II.
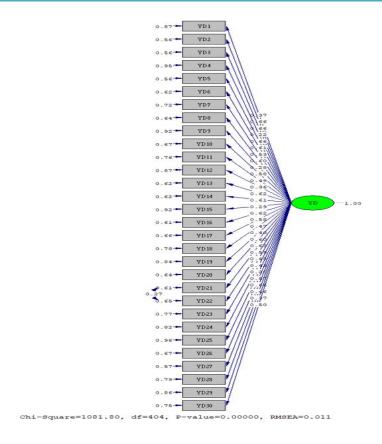
Chi-Square=1081.80, df=404, P-value=0.00000, RMSEA=0.011

Figure II. FLAs Confirmatory Factor Analysis Result

Cronbach's Alpha values for the reliability of the scales were examined. The statics of reliability belonging to CTTS and FLAS are shown in Table 1.

Table I. Reliability Statistics for CTTS and FLAS

	Cronbach's Alpha	Number of Items
CTTS	,935	,907
FLAS	49	,33

As it is seen in Table 1 the CTTS value of 49 items is in the level of .935 and FLAS value of 33 items in the level of ,907. According to these two values, it can be claimed that both of the scales are reliable.

Table II. Correlations between CTT and FLA

		CTT	FLA
CTT	Pearson Correlation	1	,257**
	Sig. (2-tailed)		,003
	Number	136	136
FLA	Pearson Correlation	,257**	1
	Sig. (2-tailed)	,003	
	Number	136	136

**correlation is significant at the 0,01 level (2-tailed)

The research pertains whether the CTTS scale predicts and measures the FLAS scale or not. In this framework, the correlation values of two scales are examined first. This is also the precondition of the regression analysis. As it is seen in table 2; there is a low level of correlation between CTTS and FLAS when the table containing the correlation results is examined (r=.257, p<.01). In this framework, it can be said that as CTTS levels of participants increase, FLAS levels also increase.

When the data obtained from the research have been analyzed, it is seen that there is a positive relationship between CTTS and FLAS.
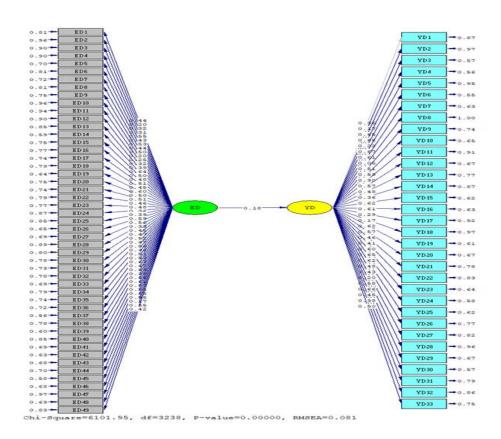

Figure III. Results of the Regression Analysis for CTTS and FLAS scales

The results of the regression analysis conducted on the CTTS scale and FLAS scale are presented in Figure III. Analysis was performed by using LISREL 8.80 software. The ratio of the chi-square to the degree of freedom is checked for the verification status of the model. This ratio is less than 2. It is also seen that the RMSEA value is at .08 level. In addition, the compliance indices for the model are as follows: Normed Fit Index (NFI) = .950, Non-Normed Fit Index (NNFI) = .960, Comparative Fit Index (CFI) = .960, Root Mean Square Residual (RMR) = .063, Standardized RMR = .045, Goodness of Fit Index (GFI) = .940.

When these values are examined, it can be argued that the model is in good agreement. In this context, it is understood that CTTS level predicts FLAS level. According to the results of the research, participants seem to provide a change of 0.18 in the CTTS with a unit change in the FLAS level.

CONCLUSION and DISCUSSION

Based on the findings of the study; the research hypothesis, "there is a negative relationship between critical thinking skills and foreign language anxiety" has been falsified. The findings have revealed that there is a positive relationship between critical thinking skills and foreign language anxiety. However, this result contradicts with the results of some other studies in the field of foreign language. Some studies show that critical thinking stimulates foreign language learning (Marcellus, 2016; Afshar & Movassagh, 2017; Afshar, Movassagh& Radi Arbabi, 2017; Alidmat& Ayassrah, 2017; Al-Kindi & Al-Mekhlafi, 2017; Marin& de la Pava, 2017). Beginning from the 1970s, some studies show that foreign language anxiety obstructs foreign language learning (Scovel, 1978; Horwitz, Horwitz& Cope, 1986; Aida, 1994; Saito, & Samimy, 1996; Dewaele & MacIntyre, 2014; Marwan, 2016; MacIntyre, 2017).

It is indicated in the literature review that there is a negative relationship between CTS and FLA; however, according to the results of this study it can be concluded that there is a positive relationship between CTS and FLA. This result shows that "when students enter a learning context with a high level of anxiety, they are much more likely to become successful language acquirers than those who do not", just on the contrary of the hypothesis of Krashen (1987). This is one of the results of the study based on the way (positive) of correlation, but there needs to be some more details taken into consideration such as the value level of the correlations. The value level of the correlation is detected as 0.18, which is at a low level. Depending on the level of correlation, it can be said that the strength of the relationship is weak. Therefore, the result of the study needs to be stated as "when students enter a learning context with a low level of anxiety, they are much more likely to become successful language acquirers than those who do not have any".

This study has parallel results with some other studies in the literature such as Dewaele & Alfawzan, 2018; Phongsa et al., 2018). Especially in the study of Dewaele & Alfawzan (2018), it was detected that positive effect of foreign language enjoyment "was stronger than the negative effect" of FLA, which shows that foreign language enjoyment is slightly more effective than FLA in foreign language performance. As it is also seen in the study of Dewaele & Alfawzan (2018), there is a misperception about the FLA as "no anxiety means more success in foreign language learning". It can be approved that FLA effects foreign language learning negatively after some levels (above 0,18 based on the results of current study).

SUGGESTIONS

Depending on the results of current study, it can be said that low level of FLA is essential in the foreign language classrooms. FLA is not the only variable effecting the foreign language learning environment, so it can

be suggested to conduct new research on the effects of other variables along with FLA in foreign language learning environments.

REFERENCES

Afshar, H. S., & Movassagh, H. (2017). "On the Relationship Among Critical Thinking, Language Learning Strategy Use And University Achievement Of Iranian English As A Foreign Language Majors." The Language Learning Journal, 45(3), 382-398.

Aida, Y. (1994). "Examination of Horwitz, Horwitz, and Cope's Construct Of Foreign Language Anxiety: The case of students of Japanese." The modern language journal, 78(2), 155-168.

Aksoy, M. (2012). *Yabancı Dil Öğreniminde Kaygı, Utangaçlık, Strateji ve Akademik Başarı Arasındaki İlişki*,Unpublished Doctoral Dissertation.Ankara University, Institute of Social Sciences.

Alidmat, A. O. H., & Ayassrah, M. A. (2017). "Development of Critical Thinking Skills through Writing Tasks: Challenges Facing Maritime English Students at Aqaba College, AlBalqa Applied University, Jordan." International Journal of Higher Education, 6(3), 82.

Al-Kindi, N. S., & AL-Mekhlafi, A. M. (2017). The Practice and Challenges of Implementing Critical Thinking Skills in Omani Post-basic EFL Classrooms. English Language Teaching, 10(12), 116.

Awan R., Azher M., Nadeem M., Naz A. (2010). "An investigation of foreign language classroom anxiety and its relationship with students' achievement." J. College Teach. Learn. 7(11):33-40.

Aydemir, O (2011). *A Study on the changes in the foreign language anxiety levels experienced by the students of the preparatory school at Gazi University during an academic year.* M.A. Thesis, University of Gazi, Ankara, Turkey.

Aydın, S. (2008). "An Investigation On The Language Anxiety and Fear of Negative Evaluation Among Turkish EFL Learners." Asian EFL Journal, pp. 421-444.

Aydın, S., Harputlu, L., Güzel, S., & Genç, D. (2016). "A Turkish version of Foreign Language Anxiety Scale: Reliability and validity." Procedia-Social and Behavioral Sciences, 232, 250-256.

Ayral, M., Özdemir, N., Demirhan, Ş. (2014). Okul güvenliği ölçeğinin geliştirilmesi. V. Eğitim Yönetimi Forumu. Necmettin Erbakan Üniversitesi, Konya, 11-13 Eylül.

Balemir, S. H. (2009). *The Sources of Foreign Language Speaking Anxiety and The Relationship between Proficiency Levels and Degree of Foreign Language Speaking Anxiety*, Unpublished Master's Thesis, Bilkent University,Institude of Educational Sciences.

Batumlu, D. Z., & Erden, M. (2007). "The relationship between foreign language anxiety and English achievement of Yıldız Technical University School of Foreign Languages Preparatory students."Journal of Theory and Practice in Education, 3(1), 24-38.

Burgucu, A. (2011). *The Role of Motivation, Attitude and Anxiety in Learning English as a Foreign Language.* Unpublished Master's Thesis, Kafkas University, Institute of Social Sciences.

Chan, D. Y. C., & Wu, G. (2004). "A Study of Foreign Language Anxiety of EFL Elementary School Students in Taipei County." Journal of National Taipei Teachers College, 17(2), 287-320.

Chance, P. (1986). Thinking in the classroom: A survey of programs. New York: Teachers College, Columbia University.

Chen TU, Chang GY (2004). "The Relationship between foreign language anxiety and learning difficulties." Foreign Language Ann. 37(2):279-289.

Dalkılıç, N. (2001). *An investigation into the role of anxiety in second language learning.Unpublished doctoral dissertation,* The Institute of Social Sciences,Çukurova University, Adana, Turkey.

Demirdaş, Ö. (2012). *Foreign Language Anxiety and Performance of Language Students in Turkısh Unıversıty Preparatory Classes*, Unpublished Master'sThesis. Abant İzzet Baysal University, Institute of Educational Sciences.

Demirdaş, Ö., &Bozdoğan, D. (2013). "Foreign Language Anxiety and Performance of Language Learners in Preparatory Classes", Turkish Journal of Education, 2(3), 4-13.

Dewaele, J. M., & Alfawzan, M. (2018). Does the Effect of Enjoyment Outweigh That of Anxiety in Foreign Language Performance? Studies in Second Language Learning and Teaching, 8(1), 21-45.

Dewaele, J. M., & MacIntyre, P. D. (2014). "The two faces of Janus? Anxiety and Enjoyment In The Foreign Language Classroom." Studies in Second Language Learning and Teaching, 4(2), 237-274.

Duncan, O. D. (1966). "Path Analysis: Sociological examples." American Journal of Sociology, 72(1), 1-16.

Ennis, R. (1985). "Goals for critical thinking curriculum."*A. Costa. (Ed.) Developing Minds*. (pp.54-57) Alexandria, VA: Association for Supervision and Curriculum Development.

Er, S. S. (2011). *Anadolu Liselerine Devam Eden Öğrencilerin Yabancı Dil Başarılarında Yabancı Dile Yönelik Kaygı ve İnançlarının Etkisinin İncelenmesi*, Unpublished Doctoral Dissertation. Ankara University Institute of Science.

Ergün, E. (2011). *An Investigation into the Relationship between Emotional Intelligence Skills and Foreign Language Anxiety of Students at a Private University,* Unpublished Master's Thesis. Middle East Technical University Institute of Social Sciences.

Ganschow, L., Sparks, R. L., Anderson, R., Javorsky, J., Skinner, S., & Patton, J. (1994). "Differences in language performance among high-, average-, and lowanxious college foreign language learners." The Modern Language Journal, 78(1), 41-55. http://dx.doi.org/10.1111/j.1540-4781.1994.tb02013.x

Glaser, E.M. (1941). *An Experiment in the Development of Critical Thinking,* Teacher's College, Columbia University.

Gülsün, R. (1997). *An Analysis of the Relationship between Learners' Foreign Language Classroom Anxiety and Achievement in Learning English as a Foreign Language in the Freshman Classes at the University of Gaziantep*,Unpublished Master's Thesis. Gaziantep University, Institute of Social Sciences.

Halpern, D.F. (1999). *Teaching for Critical Thinking: Helping College Students Develop The Skills and Dispositions of a Critical Thinker.* New Directions for Teaching and Learning. 80, 69-74.

Hao, M., Liu, M., & Hao, R. (2004). "An Empirical Study On Anxiety And Motivation In English As A Foreign Language."Asian Journal of English Language Teaching, 14, 89-104.

Hewitt, E., & Stephenson, J. (2012). Foreign language anxiety and oral exam performance: A replication of Phillips's MLJ study. The Modern Language Journal, 96(2), 170-189.

Horwitz, E. K. , Tallon M. , Luo H. (2010). "Foreign language anxiety." *In J. C. Cassady (Ed.), Anxiety in schools: The causes, consequences, and solutions for academic anxieties.* New York, NY: Peter Lang. pp. 95-115.

Horwitz, E. K. (2001). "Language Anxiety and Achievement".Annual Review of Applied Linguistics, 21, 112-126. http://dx.doi.org/10.1017/s0267190501000071

Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). "Foreign Language Classroom Anxiety." The Modern Language Journal, 70, 125-132. http://dx.doi.org/10.1111/j.1540-4781.1986.tb05256.x

Javid, C. Z. (2014). *Measuring language anxiety in an EFL context*. Journal of Education and Practice, 5(25), 180-193.

Karabey, M. (2011).*Foreign Language Classroom Anxiety of Preparatory Class Students at Atatürk University*, Unpublished Master's Thesis. Atatürk University Institute of Social Sciences.

Karaca, M. (2012). *Foreign Language Anxiety in Receptive Language Skills in ELT Classrooms at Necmettin Erbakan University*, Unpublished Master's Thesis.Necmettin Erbakan University Institute of Educational Sciences.

Kılıç, M. (2007).*The Sources and Relations of Foreign Language Listening Anxiety with Respect to Text Type and Learner Variables: A Case Study at Gaziantep University,* Institute of Educational Sciences. Gaziantep University Institute of Social Sciences.

Kitano, K. (2001). "Anxiety in the College Japanese Language Classroom." Modern Language Journal. 85:549-566.

Koch AS, Terrell TD (1991). "Affective reactions of foreign language students to Natural Approach activities and teaching techniques". *In: E. K. Horwitz& D. J. Young (Eds.), Language anxiety: From theory and research to classroom implications* (pp.109-126). Englewood Cliffs, NJ Prentice-Hall.

Köroğlu, H. (2010). *Turkısh Elt Students' Reading Anxiety and Their Strategies Use,* Unpublished Master's Thesis. Kafkas University Institute of Social Sciences.

Krashen, S. D. (1987). *Principles and Practice in Second Language Acquisition*. New York.

Kunt, N. (1997). *"*Anxiety And Beliefs About Language Learning: A Study Of Turkish-Speaking University Students Learning English In North Cyprus." Applied Psycholinguistics, 20, 217–239.

Land, K. C. (1969). "Principles Of Path Analysis." Sociological methodology, 1, 3-37.

Levine, G. S. (2003). Student and instructor beliefs and attitudes about target language use, first language use, and anxiety: Report of a questionnaire study. The Modern Language Journal, 87(3), 343-364.

Lin, H. C. K., Chao, C. J., & Huang, T. C. (2015). "From a perspective on foreign language learning anxiety to develop an affective tutoring system." Educational Technology Research and Development, 63(5), 727-747.

Liu, M. (2018). "Bilingual/Multilingual Learners' Willingness To Communicate İn And Anxiety On Speaking Chinese And Their Associations With Self-Rated Proficiency In Chinese." International Journal of Bilingual Education and Bilingualism, 21(1), 54-69.

MacIntyre PD, Gardner RC (1994). "The Subtle Effects Of Language Anxiety On Cognitive Processing In The Second Language."Language Learn. 44(2):283-305.

MacIntyre, P. D. (2017). *An Overview Of Language Anxiety Research And Trends In Its Development. New Insights Into Language Anxiety: Theory, Research and Educational Implications.* Bristol: Multilingual Matters.

Marcellus, K. C. (2016). "Making The Best Of An Inappropriate Textbook: Using An 'International Edition'to Teach Critical Thinking And Intercultural Understanding." Learning and Teaching*, 9(1), 85-89.

Marin, M. A., & de la Pava, L. (2017). "Conceptions of Critical Thinking from University EFL Teachers." English Language Teaching, 10(7), 78.

Marwan, A. (2016)."Investigating students' foreign language anxiety." Malaysian Journal of ELT Research, 3(1), 19.

Öztürk, G. (2012). *Foreıgn Language Speakıng Anxıety And Learner Motıvaton: A Case Study at a Turkısh State Unıversıty,* Unpublished Master's Thesis.

Paul, R. and Elder, L. (2008). *The Miniature Guide to Critical Thinking Concepts and Tools*, Foundation for Critical Thinking Press.

Phillips, E. M. (1992). "The Effects Of Language Anxiety On Students' Oral Test Performance and Attitudes."*The Modern Language Journal, 76(1), 14-26. http://dx.doi.org/10.1111/j.1540-4781.1992.tb02573.x

Phongsa, M., Mohamed Ismail, S. A. M., & Low, H. M. (2018). "Multilingual Effects On EFL Learning: A Comparison Of Foreign Language Anxiety Experienced By Monolingual And Bilingual Tertiary Students In The Lao PDR." Journal of Multilingual and Multicultural Development, 39(3), 271-282.

Price ML (1991). *The subjective experience of FL anxiety: Interviews with highly anxious students.*

Proulx, P. (1991). "Anxiety In Language Learning: Recognition And Prevention."Canadian Journal of Native Education, 18, 53-64.

Rajanthran S, Prakash R, Husin A (2013). "Anxiety Levels Of Foreign Language Learners In The IEP Classroom: A Focus On Nilai University's Intensive English Programme (IEP)."*Int. J. Asian Soc. Sci. 3*(9):2041-2051.

Saadi H (2009). *The Effects Of Anxiety On Students' Achievement. The Case Of Third Year LMD Students*. Master's Thesis. Mentrouri University- Constantine, Algeria.

Sağlamel, H. (2009). *An Experimental Study on the Role of Creative Drama in Alleviating Language Anxiety in Speaking Classes with Reference to Teachers' and Learners' Perceptions of Language Anxiety*, Unpublished Master's Thesis. Karadeniz Teknik University Institute of Scial Sciences.

Saito, Y, Horwitz, E. K., & Garza, T. J. (1999). "Foreign language reading anxiety".Modern Language Journal, 83, 202-218.

Saito, Y., & Samimy, K. K. (1996). "Foreign Language Anxiety And Language Performance: A Study Of Learner Anxiety In Beginning, Intermediate, And Advanced-Level College Students Of Japanese." Foreign Language Annals, 29(2), 239-249.

Scovel, T. (1978). "The Effect Of Affect On Foreign Language Learning: A Review Of The Anxiety Research." Language learning, 28(1), 129-142.

Semerci,N.(2016)."Eleştirel Düşünme Eğilimi (Ede) Ölçeğinin Geliştirilmesi: Geçerlik ve Güvenirlik Revize Çalışması." Electronic Turkish Studies, 11(9).

Sertçetin, A. (2006). *Classroom Foreign Language Anxiety among Turkish Primary School Students*.Unpublished Master's Thesis. Uludağ University.

Soodmand Afshar, H., Movassagh, H., & Radi Arbabi, H. (2017). "The interrelationship among critical thinking, writing an argumentative essay in an L2 and their subskills." The Language Learning Journal, 45(4), 419-433.

Sparks, R. J., Ganschow, L., & Javorsky, J. (2000). Déjà vu all over again.A response to Saito, Horwitz, and Garza.The Modern Language Journal, 84(1), 251–255. http://dx.doi.org/10.1111/0026-7902.00066

Streiner, D. L. (2005). "Finding our way: an introduction to path analysis." The Canadian Journal of Psychiatry, 50(2), 115-122.

Trylong, V. L. (1987). *Aptitude, Attitudes, and Anxiety: A Study of Their Relationships to Achievement in the Foreign Language Classroom*, Unpublished Doctorate Dissertation, Purdue University, USA.

Von Worde, R. (1998). *An Investigation Of Students' Perspectives On Foreign Language Anxiety,* Unpublished doctoral dissertation. George Mason University, Virginia.

Wang, J. R. (2011). *Foreign Language Classroom Anxiety and English Academic Performance among Medical University Students in Taiwan*, Unpublished Doctorate Dissertation. La Sierra University, the Faculty of School ofEducation.

Wright, S. (1921) "Correlation And Causation." Journal of Agricultural Research 20: 557-585

Wright, S. (1934) "The Method of Path Coeficients." Annals of Mathematical Statistics 5 (September)*:* 161-215

Wright, S. (1954) "The ınterpretation of multivariate systems."*Pp. 11-33 in O.Kempthorne et al. (Eds.), Statistics and Mathematics in Biology.* Ames: Iowa State College Press

Wright, S. (1960a) "Path Coefficients And Path Regressions: Alternative Or Complementary Concepts?" Biometrics 16 (June): 189-202.

Wright, S.(1960b) "The Treatment Of Reciprocal İnteraction, With Or Without Lag, In Path Analysis." Biometrics 16 (September)*:* 423-445

Zhang, R., & Zhong, J. (2012). The hindrance of doubt: Causes of language anxiety. International Journal of English Linguistics, 2(3), 27-33