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

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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, 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; Batumlü & Erden, 2006; Kılıç, 2007; Awan, Azher, Nadeem, Naz, 2010; Körüğlu, 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; Koroğlu, 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.

![CTTS CFA Result](image)

**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.

![FLAS CFA Result](image)
Cronbach’s Alpha values for the reliability of the scales were examined. The statistics of reliability belonging to CTTS and FLAS are shown in Table 1.

### Table I. Reliability Statistics for CTTS and FLAS

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTTS</td>
<td>.935</td>
<td>.907</td>
</tr>
<tr>
<td>FLAS</td>
<td>49</td>
<td>.33</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>CTT Pearson Correlation</th>
<th>CTT Sig. (2-tailed)</th>
<th>CTT Number</th>
<th>FLA Pearson Correlation</th>
<th>FLA Sig. (2-tailed)</th>
<th>FLA Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT</td>
<td>1</td>
<td></td>
<td>136</td>
<td>.257**</td>
<td>.003</td>
<td>136</td>
</tr>
<tr>
<td>FLA</td>
<td>.257**</td>
<td>.003</td>
<td>136</td>
<td>1</td>
<td></td>
<td>136</td>
</tr>
</tbody>
</table>

**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](image)

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, & Samimi, 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; Phongs 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.

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