FOREIGN LANGUAGE ANXIETY AND ENGLISH LANGUAGE ACHIEVEMENT IN HIGHER EDUCATION: THE MEDIATING ROLE OF STUDENT ENGAGEMENT

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Abstract:
The study aims to examine the mediating role of engagement in the relationship between foreign language anxiety and English language achievement. The research design of the study is prediction research design. The participants consisted of 605 English preparatory class students at Foreign Languages Department at university level. Path analysis was used to analyse the data. The results show that student engagement mediated the relationship between foreign language anxiety and English language achievement. It was concluded that when engagement predicted English language achievement, the effect of foreign language anxiety on English language achievement partially disappeared. It means that the effect of foreign language anxiety on the English language achievement is not able to predict solely by engagement in EFL classroom. Therefore, other mediator variables can be investigated in the relationship between foreign language anxiety and English language achievement.

Keywords: foreign language anxiety, student engagement, engagement in EFL classroom, English language achievement

1. Introduction

In today’s world, English language teaching has become significant due to globalization, technological and scientific developments. Foreign language education is considered to

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be ineffective in Turkey since most university students have difficulty in communicating in English especially speaking despite the fact that they have studied English for many years in formal education. One of the factors affecting language teaching is foreign language anxiety which has been studied for more than 50 years. Many learners of foreign language state that they have a psychological barrier against language learning. This situation, which is called as a foreign language anxiety by Horwitz, affects the language learning process in the classroom negatively (Horwitz et al. 1986, p. 125). As most of the students are learning English in classroom environment in English non-speaking countries, foreign language anxiety appears to be an inevitable phenomenon to appear. Gardner (1991, p. vii) states that foreign language anxiety is such a remarkable phenomenon in the language learning process that any theory that tries to understand language learning process should take it into account.

Universities which have become global institutions as a result of demographic, economic and technological changes in the world, need to graduate more successful and productive students ever than before. The concept of student engagement (Astin, 1984, p. 299), which is defined as the physical and psychological energy used by students in their learning, has attracted substantial attention of scholars since it is potentially important to develop learning and teaching processes in higher education in recent years. Student engagement which refers to being active in learning process is a concept to be developed in order to increase academic achievement and motivation. It provides an important basis for social, emotional and cognitive development of students in university life (Asghar, 2014, p. 249). Student engagement enhances understanding dynamics of foreign language teaching in the classroom environment (Oga-Baldwin and Nakata, 2017, p. 151). Few studies define student engagement based on foreign language teaching theory and practices. In this study, student engagement was examined based on theoretical framework of language acquisition and learning processes.

2. Foreign Language Anxiety

Foreign language anxiety is a type of anxiety specific to the language learning context. (Horwitz, 2010, p. 154; Horwitz, 2001, p. 115). This concept can be defined as students' negative emotional reactions to language learning (Horwitz, 2001, p. 114). According to another definition, foreign language anxiety is expressed as tension, anxiety and negative emotional reaction that occurs when learning or using foreign language (MacIntyre and Gardner, 1994, p. 284; MacIntyre, 1998, p. 27; MacIntyre, 2007, p. 565). Similarly, Horwitz, Horwitz, and Cope (1991, p. 31) describe foreign language anxiety as the sum of perceptions, beliefs, feelings and behaviors related to language learning (Horwitz et al., 1991, p. 31). Horwitz (1986) and Horwitz et al. (1986) state that foreign language anxiety has a weak relationship with general anxiety. Therefore, foreign language anxiety is expressed as a kind anxiety specific to foreign language classroom that learners experience in communicating with their teachers and peers.
2.1 Foreign Language Anxiety and English Language Achievement

2.2 Student Engagement in EFL Classroom
Student engagement stands out as one of the important variables in foreign language classroom environment (Oga-Baldwin and Nakata, 2017, p. 151). Although different aspects of student engagement have been discussed in language teaching literature, it has been operationally defined in a small number of studies. Ellis (2010, p. 342) defined engagement in the second language learning as learner responses to teacher feedback. Student responses to teacher feedback can be considered as a part of student engagement in a foreign language course. Philip and Duchesne (2016, p. 70) argue that student engagement should be conceptualized considering learning environment, tasks and students. Therefore, student engagement can be defined based on language learning processes.

Svalberg (2009, p. 245) defines engagement as a concept in which the learner acts as a subject and language is an object or means of communication. Engagement in foreign language classroom includes certain cognitive situations, affective tendencies and social attitudes as well as actions and behaviors in the language teaching process. Cognitive engagement requires learners to be alert, focus their attention, and construct knowledge. Autonomy is also considered as part of cognitive participation. An affectively engaged learner should have positive attitude and willingness towards language learning as well as purposeful tendency for learning language. Social participation requires interaction and entrepreneurship. Svalberg (2009, p. 248) states that engagement is a cyclical process that enables learners to develop new awareness by taking advantage of foreign language awareness. Cognitive, affective and social dimensions are also affected by this cycle. Students' fatigue levels, general health levels, emotional states, and classroom task design may affect their cognitive engagement. In addition, affective engagement can be influenced by subject matter, personality traits, and cognitive and social factors such as
self-perception and group dynamics. Finally, social engagement can be influenced by friendship, power dynamics and values in classroom (Svalberg, 2017, p. 4). Therefore, cognitive, affective and social factors are interrelated. and in order to understand language engagement, it is necessary to understand how these dimensions interact with each other.


3. Method

3.1 Research Design
This research was designed in prediction research design, one of the quantitative research designs because it aims to reveal mediating role of engagement in the relationship between foreign language anxiety and English language achievement. In prediction research designs some variables are identified as explanatory variables and predict outcome variables (Creswell, 2009, p. 341). A structural equation model was tested to examine how foreign language anxiety affects achievement directly and through engagement. Foreign language anxiety is predictor variable, English language achievement is outcome variable, and student engagement is mediator variable.

3.2 Participants
The participants included 605 students studying at the Foreign Languages Department of a university located in the Central Anatolia Region in the Spring semester of 2018-2019. Since some studies have found that university students have higher levels of foreign language anxiety (Donovan and MacIntyre, 2005, p. 420; Guo, Xu & Liu, 2018, p. 56), the students learning English as a foreign language in university level were chosen. 70.7% of the participants consisted of male students and 29.3% of them are female students. When language levels examined, it was observed that 43.3% of the students were beginners, while 44.5% of them were in elementary level and 12.2% of them were in pre-intermediate level.

3.3 Instruments
Foreign language anxiety was measured using Foreign Language Classroom Anxiety Scale (FLCAS, Horwitz et al., 1986). The validation study of the scale was conducted by
Oruç (2020). The scale consisted of three subscales, failure anxiety, speaking anxiety and lack of self-confidence. Student engagement was measured by Language Engagement Scale developed by Oruç (2020). The subscales of the measure are cognitive engagement, affective engagement and social engagement. In order to measure English language achievement, the student grades of the previous term (Fall) were used. MacIntyre and Gardner (1994, p. 284) asserted that common indicators of achievement in foreign languages are course grades and standard proficiency exams.

3.4 Data Analysis

Before analyzing the data, skewness and kurtosis values were examined to test the data distribution. These values were found to be between +1 and -1 and the data was normally distributed. Pearson Moments Correlation analysis and path analysis were used to examine the data. Also, Variance Inflationary Factor (VIF) analysis was performed to test multicollinearity between the independent variables and it was found that there was not a multicollinearity problem between the variables. Correlation analysis was performed in SPSS (Statistical Package for Social Sciences) program and path analysis was performed in AMOS package program.

4. Results

In line with the research questions, it was examined whether student engagement in EFL classroom has a mediating role in the relationship between foreign language anxiety and English language achievement. Structural equation model was used to test the model. Foreign language anxiety is independent (exogenous) variable, English language achievement is dependent (endogenous) variable and student engagement is mediator. Theoretical diagram model is shown in Figure 1.

![Figure 1: Path Diagram of the Structural Equation Model](image-url)
The model consists of two structural models that show causal relations between endogenous and exogenous variables and one measurement model that shows relationship between latent variables and indicators. Structural models indicate the direct effect of foreign language anxiety on English language achievement and the effect of foreign language anxiety on English language achievement through engagement. Measurement model consists of foreign language anxiety which is exogenous variable and indicators (speaking anxiety, failure anxiety and lack of self-confidence), engagement and indicators (affective engagement, social engagement, cognitive engagement) which is mediator.

**4.1 Assumptions in Structural Equation Model**

One of the assumptions of structural equation model is finding out whether observed variables show multivariate normality. Since maximum likelihood method was used in the model, normal distribution of data is a required condition. Table 1 shows the multivariate normality test results.

<table>
<thead>
<tr>
<th>Multivariate Kurtosis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kurtosis</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>2.194</td>
</tr>
</tbody>
</table>

As shown in Table 1, the multivariate kurtosis value is lower than 8. This shows that variables have multivariate normal distribution. Another assumption requires linear relationships between observed and latent variables. Scatter Plot Matrix confirmed the linearity of the relationships between the variables. Finally, Mahalanobis distances were examined in AMOS program to determine extreme values in data. The items with the significance level less than <.05 were excluded from the data set.

**4.2 Testing the measurement model**

The measurement model must be tested before testing the structural model. The measurement model consists of latent variables: foreign language anxiety and engagement. Foreign language anxiety has three observed variables: speaking anxiety, failure anxiety and lack of self-confidence, while student engagement has three observed variables: affective engagement, cognitive engagement and social engagement.

Standardized correlation coefficients show the relationships between latent variable and observed variables (Çelik ve Yılmaz, 2013, s. 119). Correlation coefficients of the subscales of foreign language anxiety vary between .50 and .93 and coefficients of the subscales of student engagement vary between .65 and .78. Goodness of fit indices of the measurement model is shown in Table 2.
Table 2: Fit Indices of The Measurement Model

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFI</td>
<td>.98</td>
</tr>
<tr>
<td>NFI</td>
<td>.97</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.06</td>
</tr>
<tr>
<td>( \chi^2 / sd )</td>
<td>3.56</td>
</tr>
</tbody>
</table>

Fit indices show that the model fits the data (\( \chi^2 / sd =3,565 \)). \( \chi^2/df \) should be lower than 5 (Kline, 2005, s. 208-211). Additionally, NFI, CFI and RMSEA values confirm the goodness of fit because RMSEA>.10, CFI and NFI < .95 indicates good fit.

4.3 Testing the structural equation model

After examining the measurement model, the mediating role of engagement was tested in the relationship between foreign language anxiety and English language achievement. Maximum likelihood method was used in the path analysis. The path diagram of the model is given in Figure 2.

![Figure 2: Path Diagram of the Structural Equation Model](image)

Structural relationships between the variables in the model show that foreign language anxiety has a negative effect (\( \beta = -0.59 \)) on student engagement in foreign language classroom. Similarly, it is observed that foreign language anxiety has a negative effect (\( \beta = -0.37 \)) on English achievement. Also, engagement in foreign language classroom has a positive effect on English achievement (\( \beta = 0.19 \)).

The direct effect (-.41) between foreign language anxiety and English achievement is reduced (-.37) when student engagement, the mediating variable, enters the model. It indicates that engagement has a partial mediating effect in the relationship between foreign language anxiety and English language achievement. Bootstrap confidence
interval statistics was used to test the mediation effect (Preacher & Hayes, 2008, p. 880). The lower and upper confidence limits must be above or below zero together. The Bootstrap confidence interval, direct and indirect effects are given in Table 3.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Mediating Variable</th>
<th>Direct Effect</th>
<th>Indirect Effect</th>
<th>Confidence Interval</th>
<th>Mediating Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Achievement</td>
<td>Foreign Language Anxiety</td>
<td>Engagement in Foreign Language Class</td>
<td>-37*</td>
<td>-11*</td>
<td>-1.76/-0.06</td>
<td>Partial</td>
</tr>
</tbody>
</table>

*p<.05

Table 3 shows that student engagement has a partial mediating role in the relationship between foreign language anxiety and English language achievement. Fit indices for the model are given in Table 4.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFI</td>
<td>.97</td>
</tr>
<tr>
<td>NFI</td>
<td>.97</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.06</td>
</tr>
<tr>
<td>χ²/ sd</td>
<td>3.864</td>
</tr>
</tbody>
</table>

When the fit indices of the model are examined (χ²/ sd = 3.864), it seems that the theoretical model shows a good fit to the data. Likewise, NFI, CFI and RMSEA values support the goodness fit of the model. RMSEA>.10, CFI and NFI < .95 indicates good fit. Also, χ²/df should be lower than 5 (Kline, 2005, p. 208-211). The total effect coefficients of the variables are shown in Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Foreign Language Anxiety</th>
<th>Student engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective Engagement</td>
<td>-.51</td>
<td>.56</td>
</tr>
<tr>
<td>Cognitive Engagement</td>
<td>-.38</td>
<td>.65</td>
</tr>
<tr>
<td>Social Engagement</td>
<td>-.33</td>
<td>.87</td>
</tr>
<tr>
<td>English Language Achievement</td>
<td>-.48</td>
<td>.19</td>
</tr>
</tbody>
</table>

Table 5 shows that foreign language anxiety affects the subscales of engagement negatively and English language achievement. Student engagement has a positive effect on English language achievement.

## 5. Discussion and Conclusion

This study aims to reveal the effect of foreign language anxiety on English language achievement through student engagement in the preparatory classes. Firstly, the theoretical model was identified as an acceptable model in the study. When the structural...
relationships between the variables were examined, it was concluded that foreign language anxiety affected student engagement negatively. Xiang (2004, p. 116) states that foreign language anxiety affects student performance adversely and reduces their level of engagement. Asghar (2014, p. 248) examined engagement and anxiety levels of the students in her study and found a negative relationship between these two variables. Another finding in the study was that foreign language anxiety affected English language achievement negatively. Liu and Zhang (2013, p. 1) asserts that exam anxiety negatively affected academic achievement in their study conducted on university students in China. Finally, it has been found that student engagement positively affects English achievement. Many studies has supported that student engagement has a positive effect on academic achievement (Finn, 1989, p. 117; Junco, Heiberger, and Loken, 2011, p. 119; Harbor et al., 2015, p. 5; Reeve and Lee, 2014, p. 527) According to Harbor et al. (2015, p. 7), student engagement is one of the best predictors of achievement.

The model of the research consists of three parts: two measurements models and one structural equation model. In the first measurement model, foreign language anxiety, which was an exogenous variable consisted of three observed variables: failure anxiety, lack of self-confidence and speaking anxiety. In the first measurement model lack of self-confidence is the variable which explains foreign language anxiety better than the other subscales. Cheng et al. (1999, 417) and Matsuda & Gobel (2001, s. 228) assert that self-confidence has an important role in explaining multi-dimensional structure of foreign language anxiety. In the second measurement model, student engagement which was the mediating variable, consisted of social engagement, affective engagement and cognitive engagement. Affective engagement explains student engagement better than the other subscales.

The structural equation model indicated that foreign language anxiety of the students affected their English language achievement through engagement. The mediating effect of student engagement was negative and partial. Thus, it can be concluded that the effect of foreign language anxiety on achievement is partially eliminated when student engagement predicts English language achievement. This means that the impact of foreign language anxiety on English language achievement cannot be fully explained by students' engagement in a foreign language course. Therefore, other variables which weren’t in the model may mediate the relationship between foreign language anxiety and English language achievement.

Motivation associated with foreign language anxiety and student engagement in several studies can be one of the variables mediating this relationship (Reeve, 2012, p. 150; Liu and Chen, 2015, p. 193; Liu and Zhang, 2013, p. 11). Motivation has a positive relationship with foreign language anxiety (Liu and Zhang, 2013, p. 11) and academic achievement (Niemiec and Ryan, 2009, p.). Thus, increasing motivation of students will enable students to be more active in the learning process and this will reduce foreign language anxiety. In this sense, the role of motivation in the relationship between foreign language anxiety and English language achievement can be investigated. Another variable that can be investigated this model is teacher support. Studies examining the
relationship between teacher support and student engagement indicate that teacher support has an important role in developing engagement (Klem and Connell, 2004, p. 262; Skinner, Furrer, Marchand and Kindermann, 2008, p.765). Thus, teacher support can be examined as another mediating variable in the relationship between foreign language anxiety and English language achievement.

References


