The Examination of Foreign Language Achievement in Terms of Certain Variables

Kaan Zülfikar DENİZ1, Çiğdem GÜLDEN2, Hatice APAYDIN ŞEN3

ABSTRACT. In this study, foreign language achievement has been researched in terms of these variables: fields at university (TSS, MS and TM), gender and university entrance exam scores. The participants were 1289 preparatory class students attending English courses at Ankara University in 2012. One factor ANCOVA was applied and proficiency test scores which had been taken at the beginning of the term were used as covariate variable. At the end of the study, it was found that when the proficiency test scores were controlled, the fields (TSS, MS and TM) made a difference in English language achievement. In addition, when the foreign language achievement was examined according to gender by controlling for the English proficiency test scores, a significant difference between females and males was observed and it was seen that females were more successful than males. It appeared that there was a significant medium relationship between university entrance exam scores and foreign language achievement when the proficiency test scores were controlled.

Key Words: foreign language achievement, gender, field, preparatory class students

INTRODUCTION

At the present time, to learn a different language apart from native language is highly substantial in terms of personal development. Urging the importance and necessity of knowing foreign language, noticeable changes have been done in education construction in Turkey. Being thought that foreign language learning can become true via education in foreign language, education institutions offering education in foreign language in both secondary education and higher education have been founded (Çelebi, 2006, p. 286). For this reason, a good number of universities have foreign language preparatory classes. It is seen that even in the departments not offering education in foreign language, students need to learn a foreign language so as to research, to write thesis and to take advantage of international student exchange programs. That students’ foreign language levels are different at the beginning other than that their achievement levels aren’t the same at the end of the term has been noticed. In addition, it is known that foreign language learning levels are related to foreign language learning aptitude.

Foreign language learning aptitude has been a research subject since 1920’s in U.S. The first attempts to develop foreign language aptitude tests occurred by language specialists constructing prognosis tests in the late 1920s and 1930s. The tests were developed for these purposes: One of them was to determine one’s performance in foreign language situations, the other was to determine who might not benefit from foreign language instruction. In the 1960s, studies based on that facility to speak a foreign language was a specialized talent, independent of intelligence were conducted. In the late 1960s and 1970s, foreign language educators started to focus on the role of affective variables in foreign language learning success. Attitude, motivation, anxiety, and personality were the examples of frequently investigated variables. In the 1970s and 1980s, Gardner and his colleagues researched the effects of attitude and motivation on foreign language learning. In 1980s, while foreign language educators suggested that the inefficient use of language learning strategies and a learner’s cognitive style affected foreign language learning, some researches argued that native language skills had an impact on foreign language learning. In 1990s, the concept that most of the researches on foreign language learning focused on was individual differences. The continuation of consideration of aptitude as affected primarily by affective variables and the (re)consideration of aptitude as a cognitive construct, affected to a large extent by language variables governed researches and thinking about individual differences in relation to foreign language aptitude (Sparks & Ganschow, 2001).

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Nowadays, pedagogues focusing on learning process have conducted studies on various internal and external factors such as environment affecting learning process, method, attitude, motivation, personality, age, aptitude, memory and perception. In this sense, the concept of learning styles is one of the substantial subject studied (Oktar-Ergür, 2010, p.173).

Öner and Gediklioğlu (2007) found that secondary school students’ foreign language anxiety levels affected their success and the students with high foreign language anxiety had higher foreign language grades than the grades of the students’ with low anxiety. Most of the researches have shown that studying foreign language has various advantages for academic success in a good number of areas. Studies have shown that learning foreign language has additional benefits other than communicating with people speaking another language and developing understanding related to different cultures and cultural perspective (Stewart, 2005). Stewart (2005), expressing that foreign language learning leads to increased cognitive skills, summarizes the studies on this subject in that way: That the children studying a second language are more creative and better at problem solving than the students not studying a second language was noticed (Landry, 1974; Weatherford, 1986, Marcos, 2001); and when compared to single language children, dual language children exhibited cognitive advantages performing tasks (Hakuta, 1987). Besides that the children studying foreign language are tend to develop new perspectives and depth of understanding about the vocabulary and structure of their first language (Cumming-Potvin, Renshaw & Van Kraayenoord, 2003), foreign language students develop an understanding of geographical and cultural perspectives improving learning in other classes such as social studies, science, art and music (Roberts, 2002, as cited in Stewart, 2005).

In another study, as related by Marcos (1997), in the 1992 report of College Bound Seniors: The 1992 Profile of SAT and Achievement Test Takers, The College Entrance Examination Board reported that students studied four or more years in any other subject area had lower scores on the verbal section of the Scholastic Aptitude Test (SAT) than the students averaged four or more years of foreign language study. Moreover, the average mathematics scores for students who had experienced four or more years foreign language study were not different from the scores of students studied the same of number of years mathematics. Lehmann, Juling and Knopf (2002) tested two rival proposals. One of them was that general intelligence determined domain-specific performance in areas such as mathematics or foreign language, the other was that special abilities determined domain-specific achievements. Comparing two groups of 10- to 11-year-old students who excel in mathematics or foreign language, the researchers found findings demonstrating mathematics special ability factor and foreign language special ability factor and supporting for the second hypothesis (as cited in Bain, McCallum, Bell, Cochran & Sawyer, 2010).

The relationship between native language skill and foreign language learning is one of the research subjects. It was seen that the students with low achievement in learning foreign language were less efficient in native language reading skills at the end of the study conducted by Ferrari and Palladino (2007) with a group of 7th and 8th grade students. The results revealed that those students showed adequate reading speed and decoding skills but poor comprehension. Similarly, at the end of the study with a group of high school students, Sparks et al. (1998) found that the students who were better at oral and written proficiency measures had more superior speaking and comprehension skills in native language than the students having low scores. Ebrahim (1998) examined some variables to find out if they better predicted the performance of foreign language learning tasks than each variables seperately so as to examine the effects of some variables and verbal ability on foreign language learning. As a result, findings revealed that working memory, verbal ability and task value were the best predictor variables of foreign language learning.

In addition to the relationship between native language and foreign language, intelligence type and brain based foreign language learning are research subjects. Using student centered learning model in the classroom has been suggested as it presents a good number of opportunities convenient for different intelligence types (Ghazi, Shahzada, Gilani, Shabbir & Rashid, 2011). Andreou and
Karapetsas (2004) divided the students whose native language was Greek and learning English as a foreign language into two groups, highly bilingual proficient group and low bilingual proficient group according to language background and found that highly proficient bilinguals performed statistically significant better in all the WISC III verbal subtests, except Arithmetic, than low proficient bilinguals.

Foreign language strategies and multiple intelligence are other research subjects. The existence of any possible relationship between the use of language learning strategies and multiple intelligences’ scores of foreign language learners was investigated in the study by Akbari and Hosseini (2008). At the end of the study, linguistic, naturalist and interpersonal intelligences were found as positive predictors of language learning strategy use. In addition, only the verbal/linguistic intelligence from the eight intelligences was found to be a predictor of language proficiency. In Öztan (2006)’s study, investigating if there was a relationship between learning styles of left and right brain dominated learners and their success in foreign language teaching was aimed. At the end of this study, that there might have been a relationship between left and right brain dominated learners’ learning styles and success was revealed. Onwuegbuzie, Bailey and Daley (2000) realized that there was a significant relationship between foreign language achievement and two of the cognitive variables, namely, academic achievement and a student’s expectation of achievement in foreign language course. A significant relationship between foreign language achievement and perceived intellectual ability and perceived scholastic competence was found, too. That the students with the lowest levels of foreign language performance tended to have the lowest levels of overall academic achievement and the lowest expectations of their achievement in foreign language course were seen. For foreign language achievement, academic achievement was the most important predictor, the second most important predictor was foreign language anxiety and the third most important predictor was level of expectation.

Gender is one of the variables investigated frequently in the studies the subjects of which are foreign language learning. Sarcaoğlu and Arikan (2009) investigated whether there was a relationship between gender and students’ intelligence types; particular intelligence types and students’ success in grammar, listening and writing in English; and the relationship between their parents’ level of education and students’ intelligence types. The findings revealed that there was no a significant relationship between gender and intelligence type but the significant positive relationship between gender and verbal linguistic intelligence was found. A significant negative relationship between grammar and kinesthetic, spatial, intrapersonal intelligences was noticed. In Çakan (2005)’s study, when the success in French of 8th grade students learning French as a foreign language was compared, a significant difference wasn’t found between female and male students. It was seen that female and male students had similar success. While in the study by Onwuegbuzie et al. (2000), the findings that gender was one of the predictor of foreign language achievement and females’ foreign language achievement levels were higher than males’ levels were obtained, in the study conducted by Andreou, Vlachos and Andreou (2005), the finding that females were better in syntax and semantics than males was obtained. However, Wei (2009, p.18) implies that through a review of the literature, it becomes evident that gender differences play a role in strategy use in reading.

When the studies on foreign language learning have been summarized, it is seen that the relationships between academic achievement in other courses, gender, aptitude, intelligence and native language and foreign language learning have been mostly examined. In this study, foreign language achievement has been examined in terms of these variables: fields at university [Turkish-Mathematics (TM), Turkish-Social Sciences (TSS), Mathematics-Science (MS)], gender and university entrance exam scores.

METHOD

This part includes information about research model, participants, data collection and data analysis.
Research Model

The data was obtained from 1289 students studying at preparatory classes at Ankara University. Since the participants aren’t intervened and obtaining the necessary information is enough, the type of the research is survey model (It is one of the descriptive survey models). One of the survey models is correlational survey model which states the relations gained by comparison and correlations between variables (Karasar, 2011). The type of this study is a correlational survey model since it aims to examine the relations between the variables.

Participants

The participants were 1289 preparatory class students attending English courses at Ankara University in 2012. 697 (54%) of the participants were female, 574 (45%) were male and 18 (1%) students didn’t state gender.

Data Analysis

The data was obtained from the School of Foreign Languages of Ankara University. After arranging the data, the homogeneity of variances and normality for each category of the variables were checked as an assumption of parametric statistics. In this study, the fields at university, gender were used as independent variables and final test scores the students had at the end of preparatory class were used as dependent variables. One factor ANCOVA was applied and proficiency test scores which had been taken at the beginning of the term were used as the covariate variable. In addition, the relationships between university entrance exam scores and foreign language achievement at the end of preparatory class were calculated.

FINDINGS

The variables examined to see if they made a difference in foreign language success were put in the order as field (TSS, MS, TM) and gender. Furthermore, this part includes the findings about the results of Pearson Correlation Coefficients between foreign language achievement at the end of the preparatory class and university entrance exam scores.

*The findings about the significance of the differences between fields at university and foreign language achievement of the participants at the end of the preparatory class controlling for the proficiency test scores:*

Table 1 shows the adjusted final test means with regard to the proficiency test scores.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSS</td>
<td>158</td>
<td>66.48</td>
<td>67.73</td>
</tr>
<tr>
<td>MS</td>
<td>680</td>
<td>71.36</td>
<td>70.87</td>
</tr>
<tr>
<td>TM</td>
<td>451</td>
<td>70.42</td>
<td>70.72</td>
</tr>
</tbody>
</table>

As seen from Table 1, the final test mean for the students at TSS field is 66.48, TM field is 71.36 and MS is 70.42. With respect to these means, it is seen that there is a difference and the mean of the students in MS field is slightly higher. However, when the proficiency test scores are controlled, it is seen that final test means and adjusted final test means are similar. Table 2 shows that the ANCOVA results with respect to the adjusted final test scores according to the proficiency test scores.

According to the ANCOVA results, when the proficiency test scores are taken as a covariate variable, it is seen that there is a significant difference between the final test means of the students in
different fields (F$_{2,1285}=3.32$, p<.05). Bonferroni test results show that the final test means of the students at MS field (X = 70.87), are significantly (p=.035) higher than the final test means of the students in TSS field (X = 67.73).

Table 2. ANCOVA results with respect to the adjusted final test scores according to the proficiency test scores

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficiency</td>
<td>94570.50</td>
<td>1</td>
<td>94570.45</td>
<td>476.31</td>
<td>.000</td>
</tr>
<tr>
<td>Field</td>
<td>1319.80</td>
<td>2</td>
<td>659.90</td>
<td>3.32</td>
<td>.036</td>
</tr>
<tr>
<td>Error</td>
<td>255134.38</td>
<td>1285</td>
<td>198.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>352760.97</td>
<td>1288</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The findings about the significance of the differences between fields at university and foreign language achievement of the participants at the end of the preparatory class controlling for the proficiency test scores:

Table 3 shows the adjusted final test means with regard to proficiency test scores.

Table 3. Descriptive statistics of the adjusted final test scores according to the proficiency test scores in respect of gender

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>697</td>
<td>71.72</td>
<td>72.13</td>
</tr>
<tr>
<td>Male</td>
<td>574</td>
<td>68.78</td>
<td>68.29</td>
</tr>
</tbody>
</table>

As seen from Table 3, final test mean for female students is 71.72, for male students, it is 68.78. Regarding these means, it is seen that there is a difference and the mean of female students is higher than the mean of the male students. However, when the proficiency test scores are controlled, it is seen that final test means and adjusted final test means are similar. Table 4 shows that the ANCOVA results of adjusted final test scores according to the proficiency test with respect to gender.

Table 4. ANCOVA results of the adjusted final test scores according to the proficiency test with respect to gender

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficiency</td>
<td>95637.84</td>
<td>1</td>
<td>95637.84</td>
<td>485.02</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>4623.06</td>
<td>1</td>
<td>4623.06</td>
<td>23.45</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>250025.45</td>
<td>1268</td>
<td>197.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>348384.55</td>
<td>1270</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the ANCOVA results, when the proficiency test is a covariate variable, there is a significant difference in the final test means in respect of gender (F$_{1,1268}=23.45$, p<.001). When the means are compared, the final test mean of the female students (X =72.13) is significantly higher than the final test mean of the male students (X = 68.29).

The findings about the relationships between the university entrance exam scores and foreign language achievement of the participants at the end of the preparatory class:

Table 5 shows that the partial correlation results according to the final test scores (FTS) and the university entrance exam scores (UEES) controlling for proficiency.
Table 5. Partial correlation results according to the final test scores (FTS) and the university entrance exam scores (UEES) controlling for proficiency

<table>
<thead>
<tr>
<th>Fields (TSS, MS, TM)</th>
<th>FTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Fields (TSS, MS, TM)</td>
<td></td>
</tr>
<tr>
<td>UEES r 0.452</td>
<td>Sig .000</td>
</tr>
<tr>
<td></td>
<td>N 1285</td>
</tr>
<tr>
<td>TSS</td>
<td>UEES r 0.159</td>
</tr>
<tr>
<td></td>
<td>Sig .047</td>
</tr>
<tr>
<td></td>
<td>N 155</td>
</tr>
<tr>
<td>MS</td>
<td>UEES r 0.590</td>
</tr>
<tr>
<td></td>
<td>Sig .000</td>
</tr>
<tr>
<td></td>
<td>N 677</td>
</tr>
<tr>
<td>TM</td>
<td>UEES r 0.136</td>
</tr>
<tr>
<td></td>
<td>Sig .004</td>
</tr>
<tr>
<td></td>
<td>N 447</td>
</tr>
</tbody>
</table>

Controlling for proficiency

When the relationships are examined between FTS and UEES, it is seen that there is a medium correlation among all of the groups. While MS group has significant medium correlation, TM and TSS groups have significant low correlations. It is seen that especially there is a high correlation between UEES and FTS of the students in MS field compared to other fields.

DISCUSSION AND CONCLUSION

The studies about foreign language learning have shown that foreign language learning achievement is affected by many variables such as intelligence, learning styles, anxiety, native language aptitude, study fields, attitude and gender. This study aimed to investigate whether the fields (TM, TSS and MS), gender and university entrance exam scores made a difference in foreign language achievement for preparatory class students.

According to the results obtained in this study, when the proficiency test scores were controlled, the fields made a difference in English language achievement. In addition, it was seen that foreign language achievement of the students in MS field was significantly higher than the students in TSS field. Some of the findings of the past studies support the findings of this study while some do not support. Hart (1993) expressed that there was a positive relationship between mathematics proficiency and foreign language achievement (as cited in Onwuegbuzie et al., 2000). The other studies also indicated that there was a significant relationship between foreign language learning aptitude and verbal aptitude. College Board reported that students studied four or more years in any other subject area had lower scores on the verbal section of the Scholastic Aptitude Test (SAT) than the students averaged four or more years of foreign language study. In addition, in the report it was demonstrated that the verbal field scores of the students who had taken foreign language courses for four-five years were higher than the students who had taken other courses (Marcos, 1997). Ebrahim (1998) expressed that verbal aptitude was one of the best predictors of foreign language learning. Similarly, in the study of Akbari and Hosseini (2008) only the verbal/linguistic intelligence from the eight intelligences was found to be a predictor of language proficiency. Ferrari and Palladino (2007) indicated that the students with low achievement in foreign language learning were less efficient in native language reading skills and Sparks et al. (1998) found that the students who had higher scores at oral and written proficiency tests had more superior speaking and comprehension skills in native language than the students having low scores. Andreou and Karapetsas (2004), in their study in which they investigated the native language aptitude of the highly bilingual proficient group and low bilingual proficient group, found that the highly proficient bilinguals were better. When the findings of the literature and this study were compared, the finding that foreign language achievement of the students
in MS field is higher than the students in TSS field is in conflict with the findings of the other studies. Considering the university entrance exam in Turkey, it is expected that the students who studies at TSS departments at university should be more proficient in their native language (Turkish) than the students in MS field since they have more Turkish courses and they are good at reading comprehension. However, the students have to be better in verbal section as well as mathematics and science section to attend the prestigious universities. As a result, it is seen that the students in MS field are successful in both verbal and mathematics and science sections. Therefore, these students might be successful in foreign language, too.

When the foreign language achievement was investigated according to gender by controlling the English proficiency test scores, it was found that there was a significant difference between females and males and females were more successful than males. This result is supported by the findings of Onwuegbuzie et al. (2000)’s study and the study of Andreou et al. (2005) which indicated that females were better than males in syntax and semantics. Similarly, Wei (2009)’s and Sarıcaoğlu and Arıkan (2009)’s studies have similar results while it is in conflict with Çakan (2005)’s study. In Çakan (2005)’s study, a significant difference was not found between female and male students. However, Çakan (2005) explained that that conflict might exist as a result of the chosen content’s being neutral. This situation can be explained as females study a foreign language with much interest compared to males. Acat and Demirkol (2002, p.324) expressed that while females were interested in foreign language and showed much interest than males, males studied foreign language unwillingly. In his study, Deniz (in press) found that the level of foreign language interest of females was significantly higher than males. This finding supports the results of this study and it can be concluded that females are more successful in foreign language than males as a result of their interest.

When the proficiency test scores were controlled, it was seen that there was significant medium relationship between university entrance exam scores and foreign language achievement. In addition, it was found that there was a higher correlation between foreign language achievement and the university entrance exam scores for MS field compared to other fields. This finding is supported by past studies. Foreign language education was demonstrated in relation with other academic fields (Stewart, 2005). According to College Board report, there was significant positive relationship between SAT scores and foreign language education (Weatherford, 1986, p.4). Onwuegbuzie et al. (2000) found that there was a significant relationship between two of the cognitive variables, foreign language achievement and academic achievement. In addition, for foreign language achievement, academic achievement was the most important predictor. A significant relationship between foreign language achievement and perceived intellectual ability and perceived scholastic competence was found, too. That the students with the lowest levels of foreign language performance tended to have the lowest levels of overall academic achievement and the lowest expectations of their achievement in foreign language course were seen. The second most important predictor was foreign language anxiety and the third most important predictor was level of expectation. Bain et al. (2010) found that the group of gifted students had better foreign language aptitude than the students who were not gifted and they had positive attitude for foreign language learning. In his study, Graham (1987) explained that while some of the researchers found very little relationship between English language proficiency and academic achievement, some expressed that there was a relationship. That finding was expected since foreign language learning was also an indicator of achievement.

As a whole, both cognitive variables and affective variables play an important role in foreign language achievement and there are many variables that affect foreign language achievement. Therefore, it is not easy to draw a conclusion about the components determining foreign language achievement.

The students attending preparatory classes at Ankara University participated in this study. In the future studies, the researchers may study with students from different preparatory classes at universities and compare their academic achievement level. Furthermore, it is thought that longitudinal studies will suplement this scope.
In the study, it was seen that being a student in the fields (TSS, MS and TM) and gender had relationship with foreign language achievement and foreign language aptitude led to some differences. Foreign language teachers, preparatory class directors and curriculum development specialists may benefit from the results of this study and make some preparations like arranging the classes according to students’ backgrounds.

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Yabancı Dil Başarısının Bazı Değişkenler Açısından İncelenmesi

Kaan Zülfikar DENİZ4 Çiğdem GÜLDEN5 Hatice APAYDIN ŞEN6


ÖZET


Bulgular: Araştırmaın sonucunda, TM, MF ve TS alanlarında öğrenci olma, cinsiyet ve üniversiteye giriş puanlarının yabancı dil başarısı ile ilişkili olduğu ve bazı farklılıklara yol açtığı görülmektedir. Bu bulgu, yabancı dil öğretmenleri, hazırlık sınavı yöneticileri ve program geliştirme uzmanları tarafından dikkate alınarak, öğrencilerin daha başarılı olmalar için homojen gruplar oluşturulmasına ve çeşitli düzenlemeler yapmalarına katkı sağlayabilir.

Anahtar Kelimeler: yabancı dil başarısı, üniversite alanları, cinsiyet, hazırlık sınavı öğrencileri

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