Home educational resources, out of school factors, and foreign language achievement: An Example from Turkey

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ABSTRACT. This study examines the potential relationship between home educational resources, out of school factors, and foreign language student achievement in the Turkish context. Participants of the study include 6804 seventh grade students (3173 female and 3631 male) who took ÖBBS in 2008. The researchers used two level hierarchical linear modeling for data analysis. According to the results of the study, home educational resources such as having a study room, computer, a person who could speak English, high number of books and out of school factors such as educational development of city where the school is located and school district have relationship with foreign language achievement. On the whole, the study results suggest that foreign language achievement is related to out of school characteristics and home educational resources that need to be considered by foreign language practitioners and policy makers.
Keywords. Home educational resources, out of school factors, foreign language achievement, Evaluation of Student Achievement Test, hierarchical linear modeling.

ÖZ. Bu araştırma evdeki eğitimsel kaynaklar ve okul dışı etmenler ile yabancı dil başarısı arasındaki olası ilişkiyi incelemektedir. Araştırmanın katılımcılarını 2008 yılında Öğrenci Başarılarının Belirlenmesi Sınavına katılmış olan 6804 (3173 kız ve 3631 erkek) yedinci sınıf öğrencisi oluşturmaktadır. Çalışmaya ait veriler iki düzeyli hiyerarşik lineer modelleme ile çözümlenmiştir. Araştırma bulgularına göre, evinde kendine ait bir çalışma odasının, bilgisayarın ve yabancı dil konuşan kişinin olması, evdeki kitap sayısı ve okulun bulunduğu bölge ve şehir değişkenleri ile yabancı dil başarısı ilişkilidir. Genel olarak çalışma bulguları, yabancı dil eğitimcileri ve dil eğitim politikacılarının evdeki eğitimsel kaynaklar ve okul dışı etmenler ile yabancı dil başarısı arasındaki ilişkiye dikkat etmeleri konusunda öneriler getirmektedir.
Anahtar sözcükler. Evdeki eğitimsel kaynaklar, okul dışı etmenler, yabancı dil başarısı, Öğrenci Başarılarının Belirlenmesi Sınavı, hiyerarşik lineer modelleme.

INTRODUCTION

A large body of research studies conducted in applied linguistics has shown that rate and success of second/foreign language (L2) learning highly varies among learners. To investigate this variable nature of L2 learner achievement, researchers have focused on five main categories (cognitive, affective, sociocultural, instructional, and biological). The particular variables that have withdrawn extensive attention in relation to L2 learner variability are; intelligence (Gardner, 2004), motivation (Dörnyei, 2005; Schumann et al., 2004), age (Lenneberg, 1967), aptitude (Dörnyei & Skehan, 2003; Skehan, 1998), anxiety (Horwitz, 2001), willingness to communicate (MacIntyre et al., 2002), social and cultural distance (Abrams, 2002; Schumann, 1978), cross-linguistic influence (Odlin, 2003), learner strategies (Oxford, 1999), and gender (Halpern, 1992). Although, L2 learner variability research has succeeded in drawing the attention of language practitioners and teachers to a broad range of noteworthy factors, it has largely ignored to examine whether a potential relationship between home educational resources (HERs), out of school factors (OSFs), and L2 student

achievement exists. This study particularly addresses this possible relationship in the Turkish educational context.

HERs include instructional aids that are available to learners in the immediate home environment (Chin & Phillips, 2004; Richard, Maynard, & Ohls, 1981; Roscigno & Ainsworth-Darnell, 1999). Some of these resources are physical; others are nonmonetary human-oriented resources. In particular, these aids could be the technological devices that enable access to input and information, availability of the reading materials such as books, journals, and newspapers, a private study room, and presence of an individual who could provide educational assistance. OSFs are related to a host of physical, sociological, and psychological variables that often influence children's educational life (Berliner, 2009). They could range from health prompted factors such as neurological damage and linguistic underdevelopment to larger regional and political contexts and factors such as school district, major changes in educational policies, and educational development of cities where students live.

Studies conducted in education and human development have shown that students' cognitive development and academic life are influenced by HERs and OSFs (e.g., Bronfenbrenner, 1979; European Child Care and Education [ECCE] Study Group, 1999; Melhuish et al., 2008; Sirin, 2005; Taylor, Clayton, & Rowley, 2004). In terms of theoretical basis, Bronfenbrenner's (1979) Ecological Systems Theory draws the attention to the entire ecological system in which human growth and development occurs. This theory holds that human beings encounter different environments throughout their lifetime that affect their development in varying amounts. The theory involves different aspects or levels of environment that influence human development, including; the microsystem, the mesosystem, the exosystem, the macrosystem, and the chronosystem. The microsystem framework holds that an individual's development is influenced by daily settings, or the contexts of that individual's life. In other words, microsystem refers to the most immediate level of environmental influence on an individual's development and involves the relationships and interactions a child has with his or her immediate surroundings such as family, school, neighborhood, home learning environments, and childcare centers. The mesosystem involves the interactions between two microsystems. Examples include the relations between home and school, school and workplace, etc. The exosystem, another subcomponent of the Ecological Systems Theory, addresses the higher social structures in which the child is not necessarily required to directly function. The structures in this layer and in the child's microsystem could interact and concurrently influence the child's development. The child may not be directly involved at this level, but s/he does feel the positive or negative force involved with the interaction with his/her own system. The exosystem might comprise the family's socioeconomic status, school district, the larger school system, the neighborhood or the city where the student lives (Hess, Magnuson, & Bleer, 2012). The forth level includes the macrosystem which refers to the actual culture of an individual. Cultural contexts involve the socioeconomic status of a person and/or his family, his ethnicity or race and living in a still developing or a third world country. The final subcomponent, the chronosystem is about the transitions and shifts in one's lifespan. This may also include the socio-historical contexts that may affect a person. One example of this is how divorce, as a major life change, may influence not only the couple's connection but also their children's behavior. Thus, while examining the factors that could trigger learner achievement variability, it is important to consider the relationship between a student's maturing biology, his/her immediate family and community environment, and the societal setting. In order to explore a student's development, there is the prerequisite to assess the individual and his/her individual environment as well as the interaction happening in the larger environment. In this sense, L2 studies that aim to highlight student achievement variability by solely attending to a student's biological capacities and the classroom context that s/he participates will provide inadequate explanations as long as they do not establish a connection between these factors and the larger circles such as HERs, OSFs, etc.

The particular research in education that targeted HERs and OSFs and their relationship with student achievement have provided promising findings. The Coleman Report (Coleman et al., 1966) revealed that the influence of school resources on student achievement was modest compared to the influence of students' family backgrounds and home environment. In accordance with the Coleman Report, studies by Parcel and Menaghan (1993, 1994), Thao (2003), and Nes et al. (2014) show that students who have adequate home resources are higher achievers. Roscigno and Ainsworth-Darnell (1999) found a strong positive relationship between home resources such as computer, books and student achievement. According to Teachman (1987), the availability of home resources such as books, home computer, and reading materials creates an environment favorable to studying and makes students display a positive alignment toward education. The availability of reading materials in the home is positively related to children's academic achievement (Leibowitz, 1977) Studies of home computer access have discovered promising correlations between academic achievement and having access to computer at home (Attewell & Battle, 1999; Attewell, SuazoGarcia, & Battle, 2003; Borzekowski & Robinson, 2005; Fiorini, 2010; Jackson et al., 2006; Judge, 2005). In his research that examined how school and student characteristics are related to Turkish students' English course achievement, Güvendir (2015) found that students who have a private study room, computer, educational software in his/her computer, and literary books had higher English achievement scores compared to the students for whom these resources were missing in their home environment.

In relation to the OSFs and their influence on the student achievement in the United States, Berliner (2009, p.04) reported that "studies of school-age children during the school year and over their summer break strongly suggest that most of the inequality in cognitive skills and differences in behavior come from family and neighborhood sources rather than from schools." Schools whose attendance margins involve dysfunctional neighborhoods experience far greater challenges in nurturing student achievement than do those that draw students from wealthier neighborhoods. Also, research on the educational development of the cities shows that the higher the educational level is the better educational outcomes will emerge for students (Goddard, Sweetland, & Hoy, 2000). Similar to the findings revealed by the studies in the United States, studies conducted in the Turkish context have also provided supporting evidence screening the power of school district on student achievement. A comparison of urban and rural school opportunities and academic achievement in Turkey have revealed that rural schools face numerous problems such as lack of financial resources, shortage of teachers, poor physical conditions of school buildings, lack of educational equipment, technological resources, and libraries which create a gap between the academic achievement of urban schools and rural schools (Adaman & Keyder, 2006; Gedikoğlu, 2005; Güvendir, 2015).

Considering the limited number of research on the relationship between L2 achievement, HERs and OSFs, and their significance in other educational contexts, the purpose of the study is to conduct a multi-level analysis that examines how HERs and OSFs are related to students' L2 (English) achievement in the Turkish educational context. In particular, this study addresses the following research questions:

1. In what way, does students' English achievement differ among schools?

2. Is there a relationship between HERs (private study room, computer, book number, Internet, DVD-VCD player, availability of an English speaker at home) and Turkish students' English achievement?

3. Is there a relationship between OSFs (the district where the school is located and educational development of the city) and Turkish students' English achievement?

Context and Research Focus

Measuring and observing the academic achievement of students and determining the factors influencing it have been a major concern for many countries. Thus, both national and international large scale tests are used in order to measure students' achievement, to follow students' progress consistently, and to pinpoint the factors influencing it. For example, in the international level, one of

the most common large scale practices is the Program for International Student Assessment (PISA) that is done by Organization for Economic Co-operation and Development (OECD). "PISA measures student performance in mathematics, reading, and science literacy. Conducted every 3 years, each PISA data cycle assesses one of the three core subject areas in depth (considered the major domain), although all three core subjects are assessed in each cycle (the other two subjects are considered minor subject areas for that assessment year). Assessing all three subjects every 3 years allows countries to have a consistent source of achievement data in each of the three subjects while rotating one area as the primary focus over the years." (Program for International Student Assessment, 2016).

Other large scale tests are The Progress in International Reading Literacy Study (PIRLS) and Trends in International Mathematics and Science Study (TIMSS) that International Association for The Evaluation of Educational Achievement (IEA) conduct. TIMSS measures students' mathematics and science achievement every four years. PIRLS have been examining forth year students' reading skills since 2001 (http://timssandpirls.bc.edu).

In the national level, the Educational Research and Development Department (EARGED), a division of the Republic of Turkey Ministry of Education (MEB), have been conducting Student Achievement Determination Exam (ÖBBS) in primary and secondary education every three years since 2002. Using this nationwide test, MEB aims to;

- examine student progress and how classroom instruction influences it,

- identify the particular factors that influence student achievement including the degree of that influence,

- examine student achievement in relation to school districts, years, classrooms, and course subjects,

- provide actionable guidelines and reliable findings to policy makes, administrators, teachers, teacher training programs, and material designers.

ÖBBS has Turkish, mathematics, science and technology, social sciences, and foreign language (English) sections (MEB, 2002, 2007, 2009, 2010). The measurement tools that ÖBBS uses are: a. level determination tests, b. student and teacher questionnaires. Using a multiple choice item type, ÖBBS level determination tests, as stated by MEB (2002, 2007, 2009), aim to measure students' scores in Turkish, mathematics, science and technology, social sciences, and English courses. Student and teacher questionnaires obtain subjective information about students and teachers (MEB, 2007, 2009).

The English test for the seventh grade students include 20 multiple choice questions that measure vocabulary (6 questions), grammar (6 questions), language use (4 questions), and reading comprehension (5 questions).

The teacher questionnaire gathers and presents information on teacher's gender, educational level, major, and years of experience in the teaching profession. In addition to these demographical characteristics, it also collects and presents data on activities that teachers participate beyond the school context; participation in in-service teacher training programs; views on in-service teacher training programs, opinions on the resources used for occupational improvement; views on the teaching occupation and the occupational development; and views on students, parents and other educational staff.

The student questionnaire includes questions on student's gender, mother's educational level, father's educational level, number of siblings, educational resources available at home (study room, computer, Internet connection, educational computer programs, DVD-VCD player, and books).

ÖBBS provides data related to an extensive range of student and school characteristics. It also provides data about HERs that students have and OSFs which makes it a noteworthy resource for conducting research on the possible relationship between HERs, OSFs, and L2 achievement.

METHOD

Research Model

This research uses *correlational research model* in order to examine the relationship between HERs (having a private study room, number of books, having a computer, having Internet connection, having a DVD-VCD player, and the availability of a foreign language speaker at home), OSCs (school district and educational development of the city where the school is located) and L2 (English achievement) in the ÖBBS 2008. "The correlational method is a type of nonexperimental method that describes the relationship between two measured variables (Jackson, 2015; p.148)." "Calculating correlations among variables does not make the research correlational in the strict sense. We often compute correlations among variables in the truest experiments. What makes research correlational in the common usage is the inability to manipulate some variable independently. In correlational research, relationships are studied among variables, none of which may be the actual cause of the other (Mc Burney & White, 2009; p.220)". Typically, correlational studies investigate a number of variables believed to be related to an important variable such as academic achievement (Anderson & Arsenault, 2004).

Sample and Population

This study uses the data set that is related to 6804 seventh grade students (3173 female and 3631 male) who took ÖBBS in 2008. In this data set, the sample and population were collected and identified by MEB. MEB used MEB-e-school data-base 2008 data and Level-2 data of Turkey's Economic and Social Development to pinpoint the sample that belongs to ÖBBS 2008. MEB used the stratified-sampling method to form the sample from 36 cities and 270 primary schools.

In the Level-2 data of Turkey's Economic and Social Development, Turkey was divided into 26 regions based on their socioeconomic development. MEB selected 36 cities and 270 schools from these regions. The particular points that MEB paid attention to while specifying the cities were; the socioeconomic developmental level of the city, how much the city represents the region where it is located, and the number of seventh grade students in those cities. Following these selection procedures, 6804 seventh grade students (3173 female and 3631 male) from these 36 cities and 270 schools took ÖBBS in 2008. These students form the sample and population of the current study.

Data and Data Collection

The researchers in this study used the data that they obtained from the ÖBBS unit of EARGED. This unit developed and used a student questionnaire, a teacher questionnaire, and an English level determination test that included two forms to collect the data that the researchers used in this study. The mean KR-20 values for both forms (A and B) of the test are .79 (MEB, 2010). Moreover, the data used in this study do not include any missing data.

ÖBBS unit of EARGED acquired information about HERs variables (private study room, computer, book number, Internet, DVD-VCD player, and availability of an English speaker at home) through "Yes I have got" and "No I do not have" responses that the students had given in the student questionnaire. The code "1" stood for "Yes I have got" response and the code"0" represented "No I do not have" response. The researchers in the current study specified the HERs variables as *Level 1* for the data analysis.

In the present study "the school district" and "the educational development of the city" variables form OSFs that the researchers identified as *Level 2* for the data analysis. In order to identify the school district, ÖBBS unit of EARGED coded this variable as 1. village, 2. small town, and 3. city. The student responses given to this question formed the data on "the school district" variable.

"The educational development of the city" variable was identified by the researchers. The researchers coded educational development of the city variable in numerical values that varied from 1 to 5. While 1 referred to the lowest development level, 5 referred to the highest level of development. These numbers were considered in light of National Planning Organization's Educational Sector Development Indexes report (DPT, 2003). This report provides information about the educational development levels of cities in Turkey. These levels were formed based on the number of literate citizens and university graduates in each city. The researchers in the current study matched the values provided by the National Planning Organization with the city where a student's school is located.

Data Analysis

This study uses two-level Hierarchical Linear Model (HLM) to examine how Turkish students' English achievement is related to HERs and OSFs. The reason for using two-level HLM is the presence of a hierarchical structure between Level 1 and Level 2. Research has shown that students are nested in classrooms, classrooms are nested in schools, schools within cities, cities within regions, and regions within countries. Most of the data gathered from studies conducted in social sciences are intertwined, and thus have a hierarchical structure (Hox, 1995; Raudenbush & Bryk, 2002; Snijders & Bosker, 1999). "These nested data lend themselves well to multi-level or hierarchical linear modeling (HLM) (Klinger et al., 2006, p. 774)." When data displays a hierarchical structure, it is more useful to use multiple level analyses (Hox, 1995; Raudenbush & Bryk, 2002; Snijders & Bosker, 1999).

For data analysis, initially, One Way ANOVA with Random Effects was used in order to find out whether students' English achievement differed among schools or not. Subsequently, the Random Coefficient Regression Model was used to determine HERs (private study room, computer, book number, Internet, DVD-VCD player, availability of an English speaker at home) that are related to students' English achievement. Finally, Means as Outcomes Regression Model was used to examine which OSFs (the district where the school is located and educational development of the city) are related to students' English achievement.

The researchers in this study used Statistical Package for the Social Sciences (SPSS) 17.0 and Microsoft Excel 2010 for data organization and HLM 7.0 for hierarchical linear model. The researchers considered the significance level as minimum .05.

As formerly mentioned, the explanatory variables at the Level 1 of HLM that were selected for the study were obtained from the student questionnaire of ÖBBS 2008. These variables are;

- *having a private study room at home,*
- *number of books at home,*
- *having a computer at home,*
- *having Internet connection at home*,
- *having a DVD-VCD player at home,*
- *the availability of an L2 speaker at home.*

The Level 2 variables belong to OSFs. These variables are;

- *The educational development of the city where the school is located,*
- *school district.*

FINDINGS

The researchers used two level HLM to determine HERs and OSFs that are related to students' English achievement in ÖBBS 2008. In HLM, one-way ANOVA with random effects model was used to examine whether English achievement displayed a significant difference among the schools that MEB involved in ÖBBS 2008. Table 1 shows findings related to one way ANOVA with random effect model.

Table 1. *Results for one-way ANOVA with random effects model*

Fixed Effect	Coefficient	Standard Error	t	p
Mean. English Ach., γ_{00}	37.21	.67	35.35	.00
Random Effect	Standard Deviation	Variance Component	$\chi2$	p
Level 2	10.42	108.51	2728.78	.00
Level 1	15.95	254.52		

The results on Table 1 show that the fixed parameters are significant (χ^2=2728.78, p<.01). English achievement displays a significant difference among schools. This result means that the mean value of the English achievement among the schools that participated in ÖBBS 2008 varies significantly. Thus, students at school A have different English scores than students at school B.

The one-way ANOVA with random effects model splits the total variance that belongs to English achievement score into two components. These components are the variance among students at schools (Level-1) and the variance among schools (Level-2). These components are demonstrated as follows:

- $\sigma^2/(\sigma^2+\tau_\beta)=254.52/(254.52+108.51)= .70$
- $\tau_{00}/(\sigma^2 +\tau_{00})= 108.51/(108.51+254.52)= .30$

The findings of the study show that, while 70% of total variance originates from the difference among students, 30% is the result of the difference among schools.

In order to examine the relationship between HERs at level 1 and students' English language achievement *random coefficient regression model* was used. *Means as outcomes Regression model* was used to examine the relationship between Level 2 explanatory variables and students' English achievement. Table 2 displays the results that were obtained from these models.

Level 1 Model;

English Achievement (Y_{ij})=β_{0j}+β_{1j}*(Studyroom$_{ij}$)+β_{2j}*(Computer$_{ij}$)+β_{3j}*(Internet$_{ij}$)+β_{4j}*(DVD-VCD$_{ij}$)+ β_{5j}*(Booknumber$_{ij}$)+ β_{6j}*(L2speaker$_{ij}$)+ r_{ij}

Level 2 Model;

β_{0j}=γ_{00}+γ_{01}*(Schooldistrict$_j$)+γ_{02}*(Educationaldevelopment$_j$)+u_{0j}
β_{1j}=γ_{10}+γ_{11}
β_{2j}=γ_{20}+γ_{21}

The results on Table 2 show that the variables at level 1 that are related to English language achievement are having a private study room, having a private computer, the number of books owned by the student, and the presence of an L2 speaker at home environment. Thus, students who have a private study room and computer in their home environments have higher English scores than the students who lack these resources. The results also show that as the number of books owned by a student increases, his/her English achievement score also increases. Finally, if there is an L2 speaker in the students' home environment, s/he has higher English score.

According to the study results, having Internet connection at home and owning a DVD-VCD player are not significantly related to students' English achievement. Moreover, 7% of the student achievement variance within the school can be described by the variables examined in the model.

Table 2. *Parameter estimations for two level HLM*

Fixed Effect	Coefficient	Standard Error	t	p	Effect Size	Reliability Estimate
Mean Eng.Ach., γ_{00}[1]	37.21	.67	55.15	.00*		.92
Study room, γ_{10}	2.21	.51	4.24	.00*	.25	.08
Computer, γ_{20}	2.56	.80	3.17	.00*	.19	.19
Internet, γ_{30}	-.62	.87	-.71	.47	.04	.18
DVD-VCD, γ_{40}	-.09	.48	-.19	.85	.01	.04
Book Number, γ_{50}	2.33	.25	9.07	.00*	.49	.14
L2 Speaker, γ_{60}	1.02	.52	1.94	.04*	.12	.15
Mean Eng. Ach., γ_{00}	37.16	.64	58.11	.00*		
School District, γ_{01}	3.84	.85	4.52	.00*	.27	
Educational Development, γ_{02}	1.33	.43	3.10	.00*	.19	

Random Effects	SD	Var.Com.	$\chi2$	p		
Level 2, u_0	10.48	109.80	1341.06	.00		
L2 Speaker, u_2	3.35	11.22	201.50	.02		
Level 1, r	15.36	235.87				
Level 2	9.83	96.56	2484.15	.00		
Level 1	15.95	254.48				

[1]Before the analysis the level 1 variables were centered around the group mean and level 2 variables were centered around the grand-mean.
*SD (Standard Deviation), Var. Com (Variance Component)

At level 2, the variables that are related to students' English achievement are the educational development of the city where the school is located and the school district. Thus, urban schools have higher L2 achievement scores than schools located in rural areas. Also, as the educational development of the city where the school is located increases, students' English achievement scores also increase. Additionally, 11% of the school mean variance can be described by level 2 variables.

Of level one explanatory variables, computer variable (*computer*, γ_2=.19) has the highest reliability. Computer is followed by the Internet variable (*internet*, γ_3= .18), the L2 speaker variable (*L2 speaker*, γ_6=.15), the book number variable (*book number*, γ_5=.14), the study room variable (*study room*, γ_1= .08). The DVD-VCD variable has the lowest reliability value (*DVD-VCD*, γ_4=.04).

When the effect size of the variables are examined, the variable that the highest relationship with English achievement is book number (effect size= .49), followed by school district (effect size= .27), study room (effect size= .25), educational development (effect size= .19), computer (effect size= .19), L2 speaker (effect size= .12), internet (effect size= .04), and DVD-VCD (effect size= .01).

DISCUSSION and CONCLUSION

The study results show that students who have a private study room in their home environment have higher English achievement scores than students whose home learning environment does not include a private study room. Research considers the possession of a private study room in the home environment as a sign of higher family socioeconomic status (Coleman, 1988; Duncan & Brooks-Gunn, 1997; Entwisle & Astone, 1994; Sirin, 2005), and stresses that students from families of higher socio-economic status have higher achievement scores as they obtain more out-of-school assistance (Sianou-Kyrgiou, 2006). Similarly, Gelbal's study (2008) reported that students' academic achievement depended rather on the physical opportunities that families provide at home such as a study room, more than on the opportunities that schools provide.

In this study, having a computer at home constitutes another factor that is positively related to academic achievement. Supporting this finding, studies of home computer access have exposed

promising correlations between academic achievement and having access to computer at home (Attewell & Battle, 1999; Attewell, SuazoGarcia, & Battle 2003; Borzekowski & Robinson, 2005; Fiorini, 2010; Judge, 2005; Jackson et al., 2006). However, other technological home resources such as having Internet connection at home and owning a DVD player were found to have no relationship with L2 achievement. The literature on the relationship between technology and Internet use on student achievement provides contrasting results (see Jackson et al. 2006 for a comprehensive review). Schmidt and Vanderwater (2008) noted that the content that students reach through technological resources is crucial. If the content being consumed by the students is positive and related to their educational goals, then positive results can be expected. If the content is negative and unrelated to their educational experiences, then negative results can be expected.

The findings of the study show that students who own more books in their home environment have higher English scores in the ÖBBS exam. Similarly, in a comprehensive research, using data from 27 nations, with over 70.000 cases, Evans et al. (2010) found that book number in the home environment of students has a positive influence on test scores throughout the world. Furthermore, in their research, home library size had a very considerable effect on educational attainment of students. Since each additional book has a greater impact on the academic performance of a student who only has a small home library, reformatory regulations such as providing books can be put into practice for students who lack a home library, in order to hold back possible academic disadvantages of having limited access to reading material at home.

The study results also reveal that the availability of an individual who is competent in other languages in the students' home environment is positively related to English achievement. This positive relationship may be because of the reason that the availability of an individual who is competent in other languages creates more opportunities for a student to get assistance for practicing the target language.

The findings of the study show that the school district and the educational development of the city where the school is located are related to English achievement of students. Thus, students who attend urban schools have better English scores than students who are enrolled in rural schools that are located in small towns or villages. Similarly, Özer Özkan and Acar Güvendir's study (2014) found that the educational development level of the city where the school is located is related to students' achievement. Furthermore, Acar Güvendir (2014) noted that school district has a relationship with students' achievement. Former research conducted in Turkey comparing urban and rural school opportunities and academic achievement have revealed that rural schools face numerous problems such as the lack of financial resources, shortage of teachers, poor physical conditions of school buildings, lack of educational equipment, technological resources, and libraries which create a gap between the academic achievement of urban schools and rural schools (Adaman & Keyder, 2006; Gedikoğlu, 2005). These results show that school quality in urban areas should be improved and solutions to treat these negative effects should be put into practice by governments in all countries where comparable circumstances are experienced. Research on educational development of cities shows that the higher the educational level is the better educational opportunities will be available for students (Goddard et al., 2000). Therefore, one of the strategies of L2 education should be to generate more chances for students living in cities with low educational development through instructive investments such as providing guidance to the students about the ways to use open educational resources (see Butcher (2015) for a comprehensive review of suggestions to reach these open educational resources).

The findings of the study overlap with what Güvendir (2015) found in a study that examined how several factors including HERs and OSFs were related to the English achievement of 43,707 ninth year Turkish students in ÖBBS 2009. Thus, these two studies conducted in the Turkish educational context using different ÖBBS data sets suggest that L2 achievement is influenced by HERs and OSFs that need to be considered by L2 practitioners and policy makers. HERs and OSFs are strongly related to the physical opportunities that are instantly available to the students in their everyday

environments. One of the policies of educational interventions should be to identify the students whose everyday environments do not include these resources and provide these students with the physical opportunities that make access to educational resources possible.

REFERENCES

Abrams, Z. I. (2002). Surfing to cross-cultural awareness: Using Internet-mediated projects to explore cultural stereotypes. *Foreign Language Annals, 35,* 141-160.

Acar Güvendir, M. (2014). Öğrenci başarılarının belirlenmesi sınavında öğrenci ve okul özelliklerinin Türkçe başarısı ile ilişkisi. *Eğitim ve Bilim*, *39*, 163-180.

Adaman, F., & Keyder, Ç. (2006). *Türkiye'de büyükşehirlerin varoşlarında yoksulluk ve sosyal dışlanma. Poverty and social exclusion in the suburbs of big cities in Turkey.* European Commission, the Local Community Action Program in Combating Social Exclusion 2002-2006.

Anderson, G., & Arsenault, N (2004). *Fundamentals of Education Research.* London: Routledge Falmer.

Attewell, P., & Battle, J. (1999). Home computers and school performance. *The Information Society, 15,* 1-10.

Attewell, P., Suazo-Garcia, B., & Battle, J. (2003). Computers and young children: Social benefit or social problem? *Social Forces, 82*(1), 277-296.

Berliner, D.C. (2009). *Poverty and potential: out-of-school factors and school success.* Boulder, CO and Tempe, AZ: Education and the Public Interest Center, University of Colorado/Education Policy Research Unit, Arizona State University. Retrieved January 05, 2015 from http://epicpolicy.org/publication/poverty-and-potential.

Borzekowski, D. L. G., & Robinson, N. T. (2005). The remote, the mouse, and the No. 2 pencil: The household media environment and academic achievement among third grade students. *Archives of Pediatrics and Adolescent Medicine, 159*(7), 607–13.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design.* Cambridge, MA: Harvard University Press.

Butcher, N. (2015). *A basic guide to open educational resources (OER).* Paris: United Nations Educational, Scientific and Cultural Organization.

Chin, T., & Phillips, M. (2004). Social reproductive and child-rearing practices: Social class, children's agency, and the summer activity gap. *Sociology of Education, 77,* 185-210.

Coleman, J. S., Campbell, E., Hobson, C., McPartland, J.,Mood, F., Weinfeld, F., et al. (1966). *Equality of educational opportunity.* Washington, DC: Government Printing Office.

Devlet Planlama Teşkilatı (DPT) (2003). *İllerin ve Bölgelerin Sosyo-Ekonomik Gelişmişlik Sıralaması Araştırması.* Yayın No DPT 2671.

Dörnyei, Z., & Skehan, P. (2003). Individual differences in second language learning. In C. Doughty & M. Long (Eds.), *Handbook of second language acquisition* (pp. 589–630). Oxford: Blackwell.

Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition.* Mahwah, NJ: Lawrence Erlbaum.

Duncan, G. J., & Brooks–Gunn, J. (1997). Income effects across the life span: Integration and interpretation. In G. J. Duncan & J. Brooks–Gunn (Ed.), *Consequences of growing up poor* (pp. 596–610). NY: Russell Sage Foundation Press.

Entwisle, D. R., & Astone, N. M. (1994). Some practical guidelines for measuring youth's race/ethnicity and socioeconomic status. *Child Development, 65,* 1521–1540.

European Child Care and Education (ECCE) Study Group. Tieztze, W., Hundertmark Mayser, J., & Rossbach, H. G. (1999). *School-age assessment of child development: Long-term impact of pre-school experiences on school success, and family-school relationships.* Brussels, Belgium: European Union.

Evans, M. D., Kelley, J., Sikora, J., & Treiman, D. J. (2010). Family scholarly culture and educational success: Evidence from 27 nations. *Research in Social Stratification and Mobility, 28*(2), 171-197.

Fiorini, M. (2010). The effect of home computer use on children's cognitive and non-cognitive skills. *Economics of Education Review*, *29*(1), 55–72.

Gardner, H. (2004). Audiences for the theory of multiple intelligences. *Teachers College Record, 106*, 212-220.

Gedikoğlu, T. (2005). Avrupa Birliği sürecinde Türk eğitim sistemi: sorunlar ve çözüm önerileri. *Mersin Üniversitesi Eğitim Fakültesi Dergisi, 1*(1), 66-80.

Gelbal, S. (2008). Sekizinci sınıf öğrencilerinin sosyoekonomik özelliklerinin Türkçe başarısı üzerinde etkisi. *Education and Science, 150,* 1-13.

Goddard, R.D., Sweetland, S.R., & Hoy, W. K. (2000). Academic emphasis of urban elementary schools and student achievement in reading and mathematics: A multilevel analysis. *Educational Administration Quarterly, 36,* 683-702.

Guvendir, E. (2015). A multi-level simultaneous analysis of how student and school characteristics are related to students' English language achievement. *Education Research and Perspectives, 42,* 491-527.

Halpern, D. F. (1992). *Sex differences in cognitive abilities.* Hillsdale (NJ): Lawrence Erlbaum.

Hess, R. S., Magnuson, S., & Beeler, L. (2012). *Counseling children and adolescents in the schools.* Thousand Oaks, CA :Sage.

Horwitz, E. K. (2001). Language anxiety and achievement. *Annual Review of Applied Linguistics, 21*, 112-126.

Hox, J. J. (1995). *Applied multilevel analysis*. Amsterdam: TT-Publikaties. International Association for the Evaluation of Educational Achievement (IEA). Retrieved on 12-April 2014, at URL:http://timssandpirls.bc.edu

Jackson, L. A., Von Eye, A., Biocca, F. A., Barbatsis, G., Zhao, Y., & Fitzgerald, H. E. (2006). Does home Internet use influence the academic performance of low income children?. *Developmental Psychology, 42,* 429-435.

Jackson, L. S. (2015). *Research Methods and Statistics: A Critical Thinking Approach.* Boston: Cengage Learning.

Judge, S. (2005). Impact of computer technology on academic achievement on young African American children. *Journal of Research in Childhood Education*, *20*(2), 97–107.

Klinger, D. A., Rogers, W. T., Anderson, J. O., Poth, C., & Calman, R. (2006). Contextual and School Factors Associated with Achievement on a High-stakes Examination. *Canadian Journal of Education, 29,* 771–797.

Leibowitz, A. (1977). Parental inputs and children's achievement. *Journal of Human Resources*, *12,* 242- 251.

Lenneberg, E. H. (1967). *Biological foundations of language.* New York: Wiley.

MacIntyre, P. D., Baker, S. C., Clément, R., & Donovan, L. A. (2002). Sex and age effects on willingness to communicate, anxiety, perceived competence, and L2 motivation among junior high school French immersion students. *Language Learning, 52,* 537-564.

McBurney, D.H. & White, T.L. (2009). *Research Methods*. Belmont, CA: Wadsworth/Cengage Learning.

MEB. (2002). *Öğrenci başarılarının belirlenmesi sınavı durum belirleme raporu: Türkçe, matematik, fen bilgisi, sosyal bilgiler.* Milli Eğitim Bakanlığı.

MEB. (2007). *Öğrenci başarılarının belirlenmesi sınavı durum belirleme raporu: Türkçe, matematik, fen bilgisi, sosyal bilgiler, İngilizce.* Eğitimi Araştırma ve Geliştirme Dairesi Yayınları. Milli Eğitim Bakanlığı.

MEB. (2009). *Öğrenci başarılarının belirlenmesi sınavı durum belirleme raporu: Türkçe, matematik, fen bilgisi, sosyal bilgiler, İngilizce.* Eğitimi Araştırma ve Geliştirme Dairesi Yayınları. Milli Eğitim Bakanlığı.

MEB. (2010). *Öğrenci Başarılarının Belirlenmesi Sınavı Durum Belirleme Raporu: Türk Edebiyatı, Dil ve Anlatım, Matematik, Geometri, Fizik, Kimya, Biyoloji, Tarih, Coğrafya, İngilizce.* Milli Eğitim Bakanlığı.

Melhuish, E., Sylva, K., Sammons, P., Siraj-Blatchford, I., Taggart, B., & Phan, M. (2008). Effects of home learning environment and preschool center experience upon literacy and numeracy in early primary school. *Journal of Social Issues, 64,* 95–114.

Nes, R.B., Hauge, L.J., Kornstad, T., Kristensen, P., Landolt, M.A., Eskedal, L.T., Irgens, L.M., & Vollrath, M.E. (2011). The impact of child behaviour problems on maternal employment: A Longitudinal Cohort Study. *Journal of Family and Economic Issues, 35,* 351-361.

Richard, M., Maynard, R, & Ohls, J. (1981). Home resources and children's achievement. *Review of Economics and Statistics, 63,* 369–77.

Odlin, T. (2003). Cross-linguistic influence. In C. J. Doughty and M. H. Long (Eds.), *Handbook of second language acquisition* (pp. 436-86). Malden, MA: Blackwell.

Oxford, R. (1999). Anxiety and the language learner: New Insights. In A. Jane (Eds.), *Affect in language learning* (pp. 58–67). Cambridge: Cambridge University Press.

Özer Özkan, Y., & Acar Güvendir, M. (2014). Öğrencilerin sosyoekonomik özellikleri ile matematik başarıları arasındaki ilişki: PISA ve ÖBBS karşılaştırılması. *International Online Journal of Educational Sciences*, *6* (3), 776-789.

Parcel, T. L., & Menaghan, E. G. (1993). Family social capital and children's behavior problems. *Social Psychology Quarterly, 56,* 120-35.

Parcel, T. L., & Menaghan, E. G. (1994). Early parental work, family social capital, and early childhood outcomes. *American Journal of Sociology, 99,* 972-1009.

Program for International Student Assessment (2016). Retrieved October 07, 2015 from https://nces.ed.gov/ surveys/pisa/faq.asp.

Raudenbush, S.W., & Bryk, A. S. (2002). *Hierarchical linear models.* Thousand Oaks: Sage Publications.

Roscigno, V., & J. W. Ainsworth-Darnell. (1999). Race, cultural capital, and educational resources: Persistent inequalities and achievement returns. *Sociology of Education*, *72,* 158-178.

Schumann, J. H. (1978). The acculturation model for second-language acquisition. In R. C. Gingras (Eds.), *Second language acquisition and foreign language teaching* (pp. 27-50). Washington, DC: Center for Applied Linguistics.

Schumann, J., Crowell, S. E., Jones, N. E., Lee, N., Scuchert, S. A., & Wood, L. A. (2004). *The neurobiology of learning: Perspectives from second language acquisition.* Mahwah, NJ: Erlbaum.

Schmidt, M. E., & Vanderwater, E. A. (2008). Media attention, cognition, and school achievement. *The Future of Children, 18,* 63-85.

Sianou-Kyrgiou, E. (2006). *Education and social inequalities. The transition from secondary to higher education (1997-2004).* Athens: Metaixmio.

Sirin, S. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Educational Research, 75,* 417–453.

Skehan, P. (1998). *A cognitive approach to language learning.* Oxford: Oxford University Press.

Snijders, T. A. B., & Bosker, R. J. (1999). *Multilevel analysis: An introduction to basic and advanced multilevel modeling.* London: Sage Publications.

Taylor, L. C., Clayton, J. D., & Rowley, S. J. (2004). Academic socialization: Understanding parental influences on children's school-related development in the early years. *Review of General Psychology, 8*(3), 163–178.

Teachman, J. (1987). Family background, educational resources, and educational attainment. *American Sociological Review, 52,* 548-557.

Thao, Y. J. (2003). Empowering among students: Home and school factors. *The Urban Review, 35*(1), 25-42.

Evdeki Eğitimsel Kaynaklar, Okul Dışı Etmenler ve Yabancı Dil Başarısı: Bir Türkiye Örneği

ÖZET

Amaç ve Önem: Uygulamalı dilbilim alanında yapılmış birçok araştırma yabancı dil başarısının hem gelişim hızı hem de başarı açısından büyük farklılıklar gösterdiğini ortaya koymuştur. Öğrencilerin sahip oldukları bu başarı farklılıklarını incelemek amacıyla araştırmacılar temel olarak beş kategoriye (bilişsel, duyuşsal, sosyokültürel, eğitimsel ve biyolojik) yoğunlaşmışlardır. Özele inildiğinde temel olarak üzerinde durulan değişkenler yaş (Lenneberg, 1967), yetenek (Dörnyei ve Skehan, 2003; Skehan, 1998), zeka (Gardner, 2004), kaygı (Horwitz, 2001), iletişim kurma arzusu, güdülenme (Dörnyei, 2005; Schumann et al., 2004), sosyal ve kültürel uzaklık (Abrams, 2002; Schumann, 1978), diller arası etki (Odlin, 2003), öğrenci stratejileri (Oxford, 1999) ve cinsiyettir (Halpern, 1992). Bu değişkenleri inceleyen çalışmalar önemli sonuçlar sunmalarına rağmen yabancı dil eğitimindeki bu araştırmalarda evdeki eğitimsel kaynaklar ve okul dışı etmenlerin yabancı dil başarısıyla ilişkili olup olmayacağı konusu ayrıntılı olarak ele alınmamıştır. Bu araştırma, evdeki eğitimsel kaynaklar ve okul dışı etmenler ile yabancı dil başarısı arasındaki olası ilişkiyi incelemektedir.

Yöntem: Bu araştırmada 2008 Öğrenci Başarılarının Belirlenmesi Sınavına (ÖBBS) katılmış olan 6804 yedinci sınıf öğrencisinin evdeki eğitimsel kaynaklar (kişisel çalışma odası, kitap sayısı, bilgisayara sahip olma, internet bağlantısına sahip olma, DVD-VCD oynatıcıya sahip olma, evde yabancı dil konuşan kişi veya kişilerin bulunması) ve okul dışı etmenler (okulun bulunduğu bölge ve okulun bulunduğu şehrin eğitim düzeyi) ile yabancı dil başarısı arasındaki olası ilişkiyi incelemek için hiyerarşik lineer model kullanılmıştır.

Tartışma/Sonuç ve Öneriler: Çalışma sonuçları evinde kendine ait bir çalışma odası mevcut olan öğrencilerin yabancı dil başarılarının daha yüksek olduğu sonucunu ortaya koymuştur. Bu konu üzerine gerçekleştirilen diğer çalışmalar kişisel çalışma odasının ailelerin yüksek sosyoekonomik düzeyleri ile ilişkili olduğunu ve sosyoekonomik düzeyi yüksek olan ailelerin eğitimsel destek anlamında çocuklarına daha fazla olanaklar sunduklarını ortaya koymaktadır (Coleman, 1988; Duncan ve Brooks-Gunn, 1997; Entwisle ve Astone, 1994; Sianou-Kyrgiou, 2006; Sirin, 2005).

Çalışmaya ait diğer bir sonuç ev ortamında bilgisayara sahip olmanın yabancı dil başarısını yükselttiğini ortaya koymaktadır. Eğitim alanında yürütülmüş araştırmalar benzer sonuçlara ulaşmıştır (Attewell, SuazoGarcia ve Battle 2003; Attewell ve Battle, 1999; Borzekowski ve Robinson, 2005; Judge, 2005; Fiorini, 2010). Bilgisayar ve yabancı dil başarısı arasındaki bu ilişkiye rağmen teknoloji ile ilgili diğer değişkenlerden olan internet bağlantısına sahip olma ve DVD-VCD oynatıcıya sahip olma ile yabancı dil başarısı arasında ilişki bulunamamıştır. Schmidt ve Vanderwater (2008) öğrencilere sunulan teknolojik olanakların önemi üzerinde durmuşlardır. Öğrencilerin kullandığı teknolojik içerik eğitim amaçları ile ilgili ise bu teknolojik olanakların eğitim anlamında olumlu sonuçlar doğurması beklenir. Aksi halde öğrenciler teknolojik olanakları eğitimsel amaçları ile ilişkilendiremezlerse olumsuz sonuçlar doğabilir.

Gerçekleştirilen bu çalışmada evdeki kitap sayısı ile yabancı dil başarısı arasında olumlu yönde bir ilişki bulunmuştur. Evans'ın (2010) 27 ülke ve 70,000 örnek üzerine yaptığı araştırma kitap sayısı ve öğrenci başarısı arasında olumlu bir ilişki olduğunu göstermektedir. Bu konuda eğitimcilerin öğrencilerin sahip oldukları kitapları tespit etmeleri ve hem okumaya teşvik hem de kitap sayısının arttırılması konusunda uygulamalara gitmeleri önerilmiştir.

Çalışmada ulaşılan diğer bir sonuç evde yabancı dil konuşan kişi veya kişilerin bulunması ile yabancı dil başarısı arasında olumlu yönde bir ilişki olmasıdır. Ev ortamında İngilizce bilen bir bireyin

bulunmasının öğrenciye dili daha fazla kullanma şansı sağladığı ve bunun yabancı dil başarısını arttırdığı düşünülmüştür.

Araştırmanın bir diğer sonucuna göre, okulun bulunduğu şehrin eğitimsel anlamdaki gelişmişlik düzeyi ve bölge, yabancı dil başarısı ile ilişkilidir. Bu doğrultuda kırsal bölgelerdeki öğrencilerin başarılarının arttırılması için öneriler getirilmiştir.